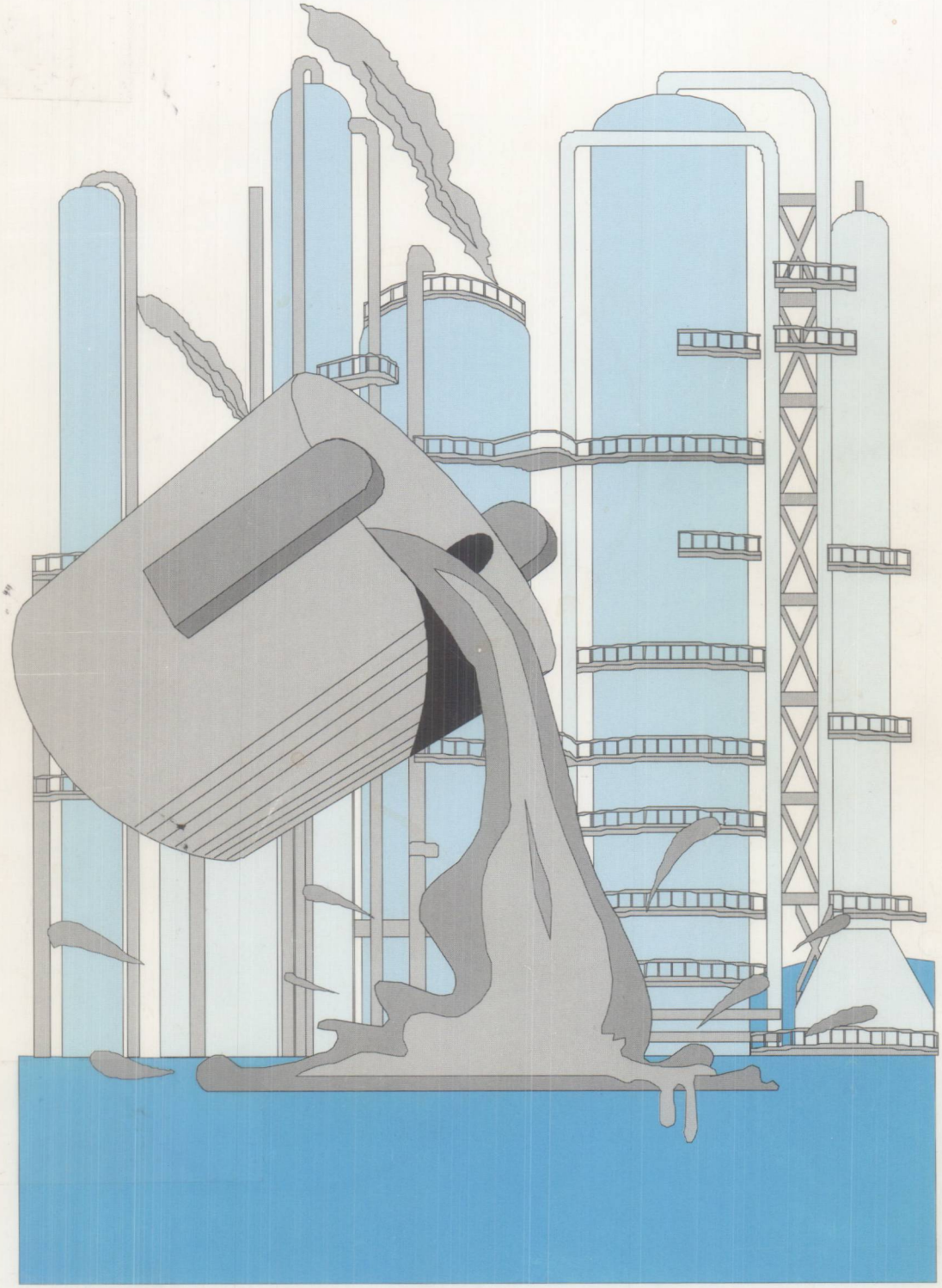
DOE/EIA-0512(94)
December 1997

Manufacturing Consumption of Energy 1994



Manufacturing Energy Consumption Survey
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December 1997

Energy Information Administration
Office of Energy Markets and End Use
U.S. Department of Energy
Washington, DC 20585

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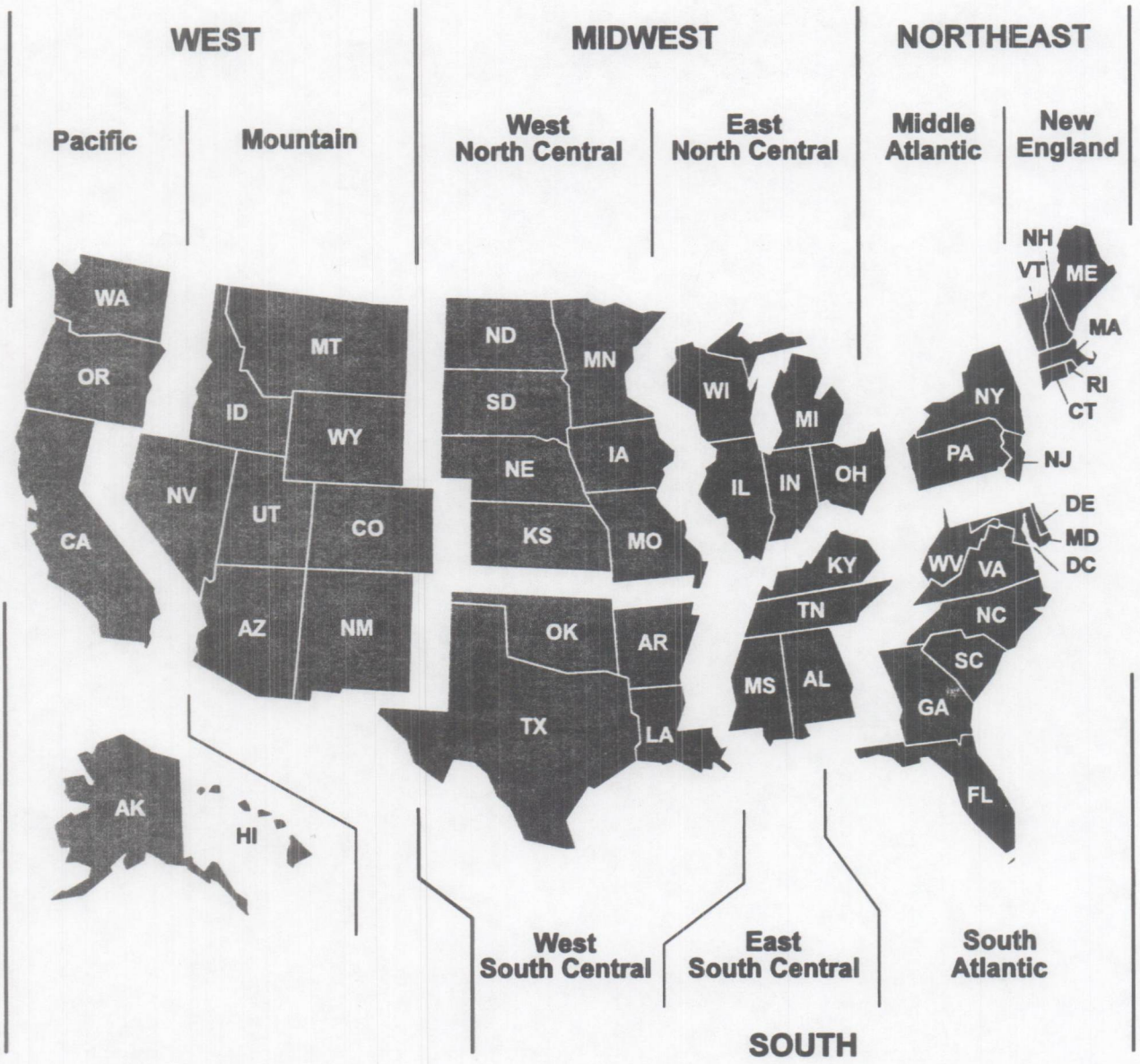
The ECD would like to thank Mark Schipper, whose role of MECS manager for the past 2 years made this publication possible. At the present time, he is on a leave of absence obtaining further education.

Appendix E

U.S. Census Regions and Divisions



Source: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1996* (Washington, DC, October 1996), Figure 1.

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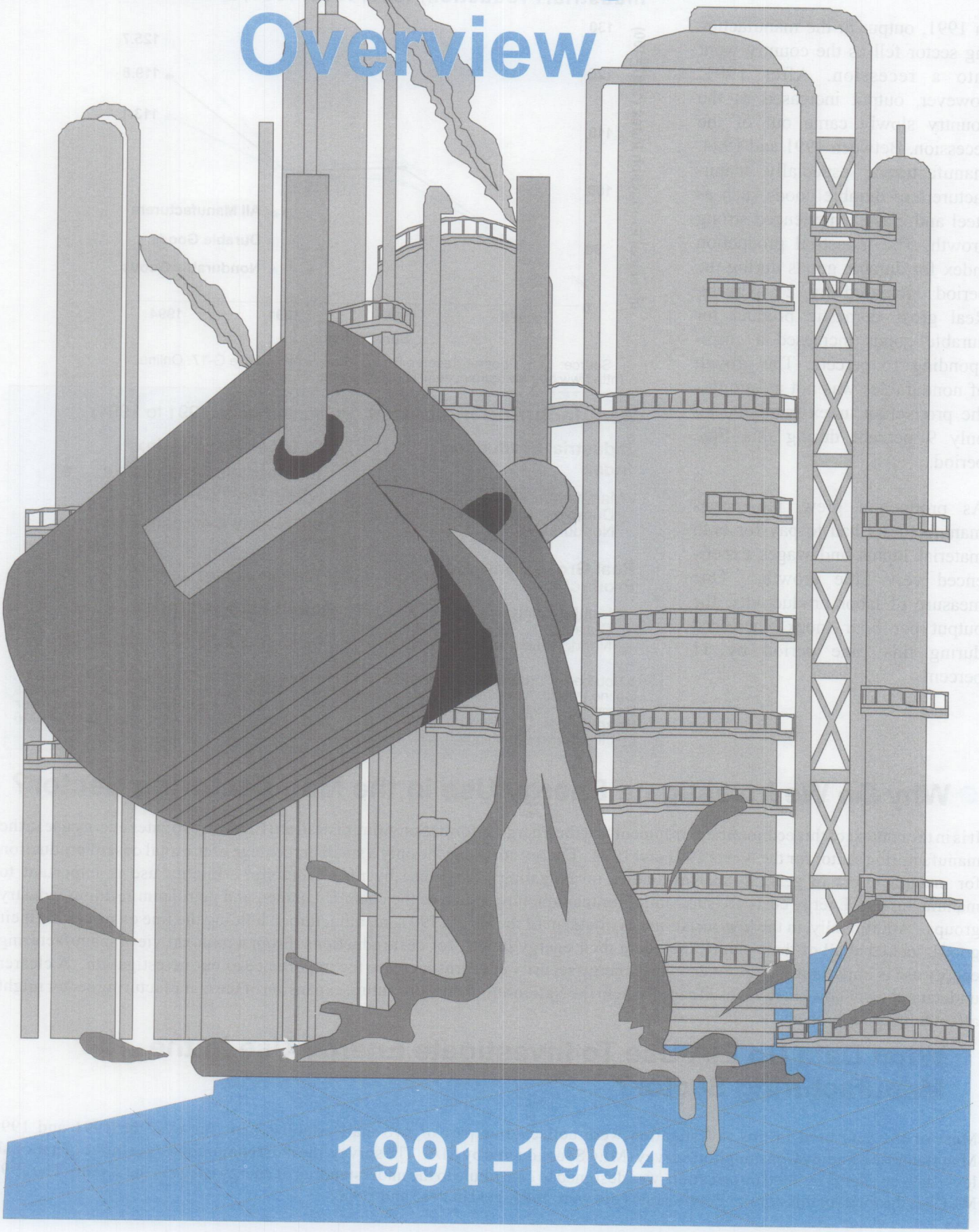
Manufacturing Sector Overview



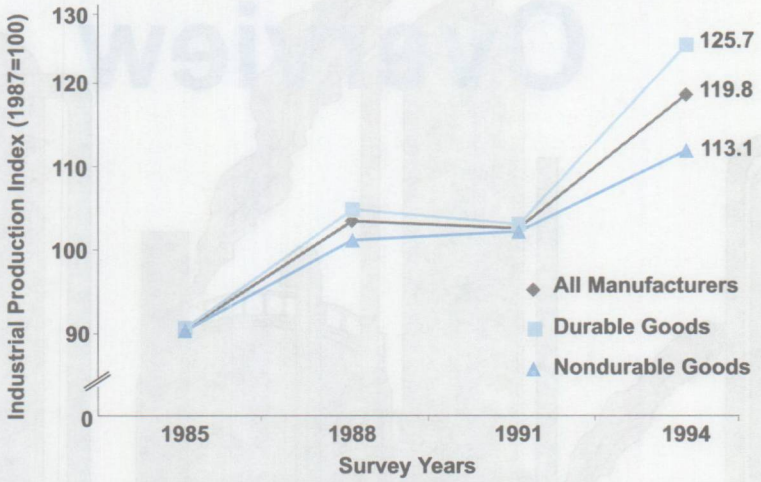
1991-1994

What Took Place in the Economic Environment Between 1991 and 1994 That Affected the Energy Manufacturers Used ?

In 1991, output in the manufacturing sector fell as the country went into a recession. After 1991, however, output increased as the country slowly came out of the recession. Between 1991 and 1994, manufacturers, especially manufacturers of durable goods such as steel and glass, experienced strong growth. The industrial production index for durable goods during the period increased by 21 percent. Real gross domestic product for durable goods increased a corresponding 16 percent. The growth of nondurables was not as strong--the production index increased by only 9 percent during this time period.

As production grew, the prices manufacturers had to pay for both material inputs and wages experienced very little growth. One measure of labor productivity, the output per hour index, increased during this time period by 11 percent.

Industrial Production, 1985, 1988, 1991, and 1994



Source: U.S. Federal Reserve Board, Statistical Release G-17. Online. (http://ww.bog.frb.us/release/G17). (November 27, 1996).

Manufacturing Indicators (Percent Change 1991 to 1994)

Industrial Production Index		
Manufacturing	15	⬆
Durables	21	⬆
Nondurables	9	⬆
Real Gross Domestic Product		
Manufacturing	11	⬆
Durables	16	⬆
Nondurables	6	⬆
Producer Price Index		
Intermediate Materials	4	⬆
Crude Materials	0	
Real Hourly Compensation Index		
Manufacturing	2	⬆
Output per Hour Index		
Manufacturing	11	⬆

Sources: • **Industrial Production:** Federal Reserve Board Statistical Release G-17. Online. (http://www.bog.frb.fed.us/release/G17). (November 27, 1996). • **Real Gross Domestic Product, Producer Price, Real Hourly Compensation**, and **Output per Hour Indices**: U.S. Bureau of the Census. *Statistical Abstract of the United States: 1996* (116th edition) (Washington, DC, 1996), Tables 685, 751, 218, and 665.

Why Do We Investigate Energy Use in the Manufacturing Sector?

It is in the context of this economic environment that the Energy Information Administration (EIA) investigates energy use in the manufacturing sector for the years 1991 and 1994. Energy costs may be only a small percentage of the total cost of production for manufacturers in general--so why bother investigating energy use by manufacturers? Energy use is important to manufacturers. Energy costs are substantial for manufacturers such as the chemical, paper, and petroleum refining industry groups. Additionally, in the low-inflation environment of the early 1990's, manufacturers, holding the line on prices for their goods, looked at all of their inputs, including their energy inputs, for cost reductions. From a national view, manufacturing energy use is important. Environmental and energy security concerns increase the importance of our investigation. A clearer understanding of how energy is used can also help the Nation anticipate how future expansion of the manufacturing sector might affect future energy needs.

What Data Do EIA Use To Investigate Energy Use in the Manufacturing Sector?

Most of the data used in this investigation were collected as part of two mail establishment surveys, the 1991 and 1994 Manufacturing Energy Consumption Survey (MECS) conducted by EIA. The survey, the most comprehensive source of national-level data on energy-related information, was designed to contribute to the understanding of energy usage in the sector. The 1994 MECS is the focus of this report. Previous surveys were conducted in 1985 and 1988.

How Is the Manufacturing Sector Classified?

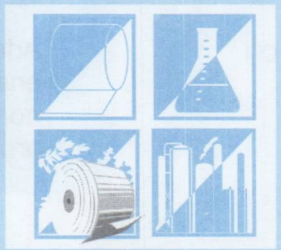
The manufacturing sector encompasses a wide variety of production activity, and, as such, accounts for a major part of the diversity in U.S. economic activity. The current definitive classification of the entire range of U.S. economic activity is the 1987 Standard Industrial Classification (SIC) System, which defines industries in accordance with the composition and structure of the economy. In the manufacturing sector, each establishment (see glossary for definition) is placed in a category associated with the types of goods it primarily produces.

Future MECS samples will conform to the recently developed North American Industrial Classification System (NAICS) developed by the Office of Management and Budget (OMB), Executive Office of the President, which will replace the 1987 SIC. The NAICS is the first industry classification system developed in accordance with the principle of aggregation, whereby producing units that use similar production processes are grouped together in the classification.

In accordance with OMB guidance, industry breakdowns of data will be tabulated according to the NAICS starting with the 1998 MECS. Along with the new industry breakdown, comparable estimates of energy measures will be prepared according to the 1987 SIC, so that data users can understand the effects of the new system.

20 Major Groups (two-digit)

The broadest classification level contains 20 major groups (SIC 20 through 39). The four largest energy consumers are Paper and Allied Products (SIC 26), Chemicals and Allied Products (SIC 28), Petroleum and Coal Products (SIC 29), and Primary Metal Industries (SIC 33). The MECS reports on all 20 two-digit SIC groups.



139 Industry Groups (three-digit)

The 20 major groups are subdivided into 139 three-digit industry groups (SIC 201 through SIC 399). At this level, the MECS reports only on three three-digit industries: Miscellaneous Plastic Products (SIC 308), Blast Furnace and Basic Steel Products (SIC 331), and Computer and Office Equipment (SIC 357).

459 Industries (four-digit)

The 139 industry groups are further subdivided into 459 four-digit industry groups (SIC 2011 through SIC 3999). The 1994 MECS reports only on 49 four-digit industries that are the largest energy consuming industries--most have historically consumed most of the energy used in the manufacturing sector. The four largest energy-users in this group are Paper Mills (SIC 2621), Organic Chemicals not elsewhere classified (SIC 2869), Petroleum Refining (2911), and Blast Furnaces and Steel Mills (SIC 3312).

What Common Energy Sources Do Manufacturers Use?

Liquefied Petroleum Gas (LPG)

Natural Gas

Coke and Breeze

Distillate Fuel Oil

Coal

These energy sources are *fuels* (F) that manufacturers burn to produce heat and power.

Additionally, manufacturers use these energy sources as feedstock or nonenergy inputs into the manufacturing process--*nonfuel* (NF) use.

Residual Fuel Oil

Electricity

Electricity (E) is a form of energy used by manufacturers to produce heat and power. It is generated by friction, induction, or chemical change.

Other Energy Sources Used in the Manufacturing Sector

Manufacturing establishments also use large quantities of steam (S). Most of the steam used is produced from the combustion of energy sources in onsite boilers. Because these energy sources are already counted as boiler fuel, they are not counted again in the MECS. Electricity that is generated onsite from combustible energy sources also is not counted for the same reason--to avoid duplication. The quantity of steam and electricity that is counted is the quantity produced offsite plus the quantity produced from renewable energy (hydropower, solar power, wind energy, and geothermal energy) minus sales and transfers leaving the establishment.

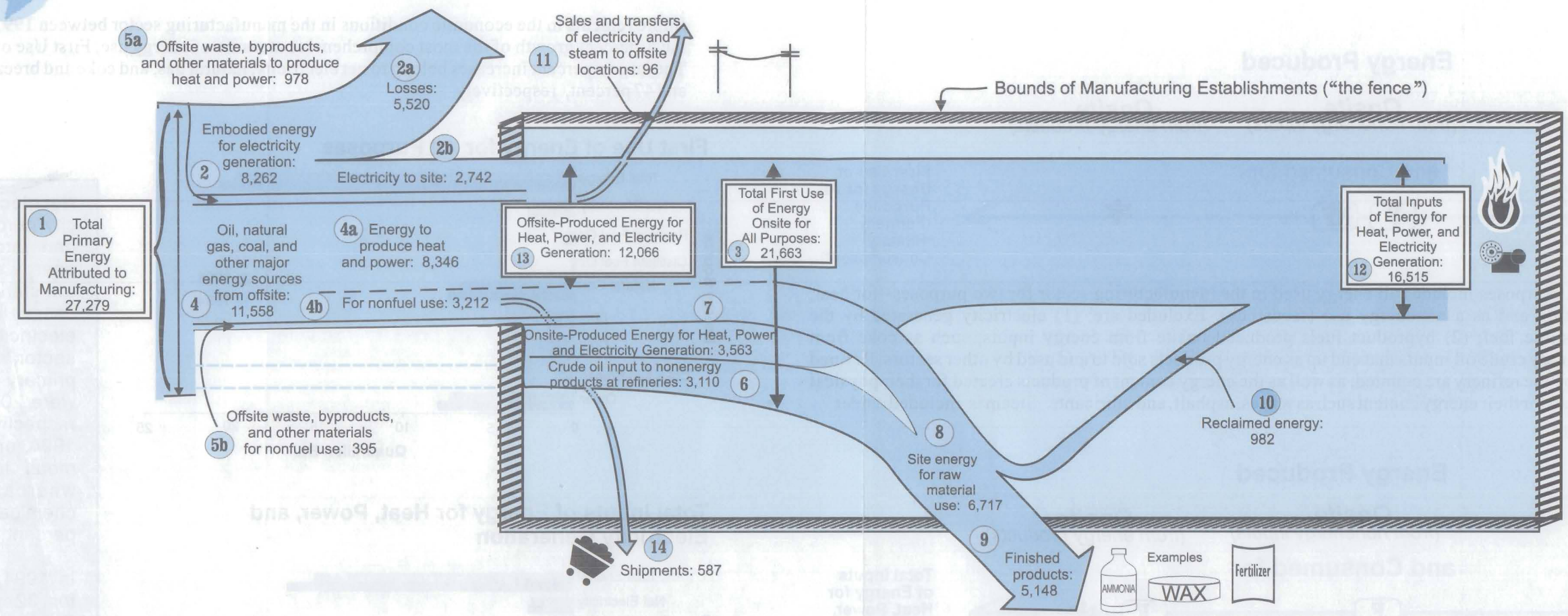
Manufacturers use energy sources that are not commonly used by other sectors, such as wood chips, bark, and wood waste materials produced during the preparation of wood pulping. The pulping process itself produces an energy source known as pulping liquor, or black liquor, which is also consumed as fuel. Other sources uncommon in the other sectors include blast furnace or coke oven gas resulting from the production of coke from coal, as well as petroleum coke and still gas produced at petroleum refineries. These are called "byproducts" because they result from the feedstock use of energy or the processing of nonenergy materials.

In addition, certain manufacturers consume biomass (such as rice hulls), packing crates, and other similar materials as energy sources.

Web Site for the Energy Information Administration:
http://www.eia.doe.gov

Manufacturing Energy Throughput, 1994

(Estimates in Trillion Btu)



In 1994, 27.3 quadrillion Btu (quads) of Total Primary Energy can be attributed to the manufacturing sector **(1)**. This amount included 5.5 quads of energy lost in generating and transmitting electricity **(2a)** and 21.7 quads of First Use of Energy for All Purposes **(3)**.[1]

The 21.7 quads of First Use of Energy for All Purposes **(3)** are the sum of:

- The 2.7 quads of electricity delivered to the manufacturing site **(2b)**
- 11.6 quads of natural gas, coal, fuel oil, and other major energy sources **(4)**; with 8.3 quads of this amount being used inside the establishment (the fence) to produce heat and power **(4a)** and 3.2 quads being used for nonfuel uses **(4b)**
- 1.4 quads of offsite waste, byproducts, and other materials **(5a** and **5b)**; with .4 quads of this amount being used for nonfuel uses **(5b)**
- 3.1 quads of crude oil input to nonenergy products (such as asphalt and road oil) at refineries **(6)**
- 3.6 quads of onsite-produced energy for heat, power, and electricity (waste and byproducts from onsite processing; energy from mines and wells onsite; and electricity and steam generated onsite from wind, solar, hydropower, and geothermal sources) **(7),** minus 0.1 quads of sales and transfers of electricity and steam.

The feedstock components of the First Use of Energy for All Purposes measure **(8)** included 3.2 quads of natural gas, coal, fuel oil, and other major energy sources **(4b)**; 0.4 quads of offsite waste, byproducts, and other materials **(5b)**; and 3.1 quads of crude oil input to nonenergy products **(6).** Of the 6.7 quads of site energy used for feedstock **(8),** 5.1 quads were used in finished products, such as fertilizer, ammonia, and wax **(9)**, and 1.6 quads were reclaimed for use in producing heat and power, and generating electricity onsite **(10)**.

The 16.5 quads of Total Inputs of Energy for Heat, Power, and Electricity Generation **(12)** included:

- 1.0 quads from offsite waste, byproducts, and other materials **(5a)**
- 2.7 quads of electricity delivered to the manufacturing site **(2b)**
- 8.3 quads of oil, natural gas, coal, and other major energy sources produced offsite and used to produce heat and power **(4a)**
- 3.6 quads of onsite-produced energy for heat, power, and electricity (waste and byproducts from onsite processing energy from mines and wells onsite; and electricity and steam generated onsite from wind power, solar power, hydropower, and geothermal energy) **(7)**
- 1.0 quads of energy reclaimed from the byproducts and waste of raw materials produced onsite and used for heat, power, and electricity generation **(10)**.

The 16.5 quads of Total Inputs of Energy for Heat, Power, and Electricity Generation also excluded the 0.1 quad of electricity and steam that was transferred to offsite locations **(11)**.

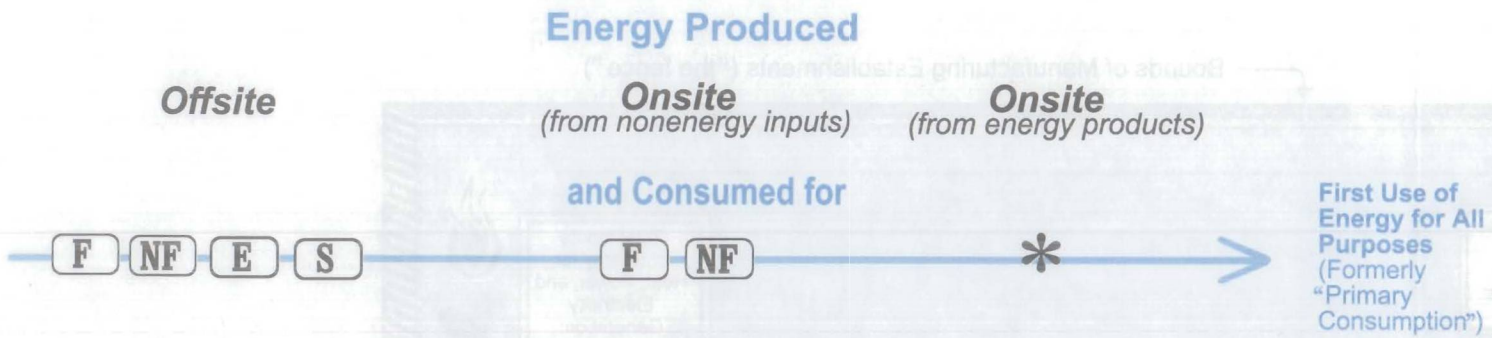
The 12.1 quads of Offsite-Produced Energy for Heat, Power, and Electricity Generation **(13)** included:

- 2.7 quads of electricity **(2b)**
- 1.0 quads of offsite waste, byproducts, and other materials **(5a)**
- 8.3 quads of oil, natural gas, coal, and other major energy sources from offsite **(4a)**.

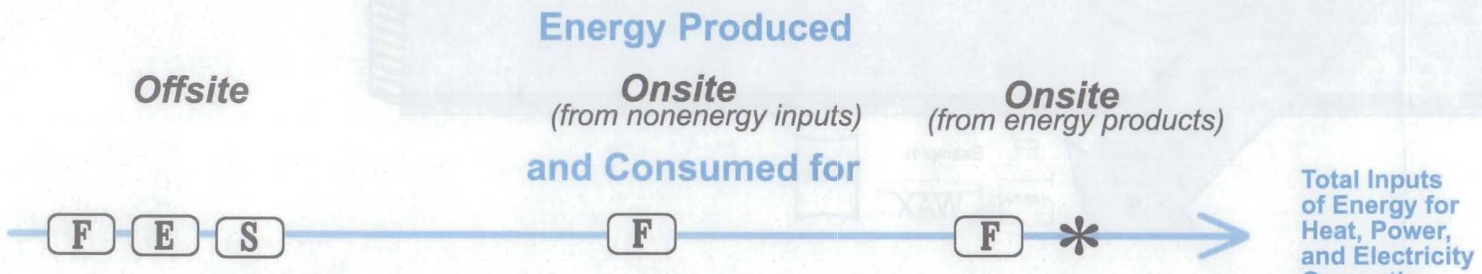
[1]Components may not sum to totals due to independent rounding.
Source: Energy Information Administration, 1994 Manufacturing Energy Consumption Survey.

Manufacturing Sector: EIA Measures of Energy

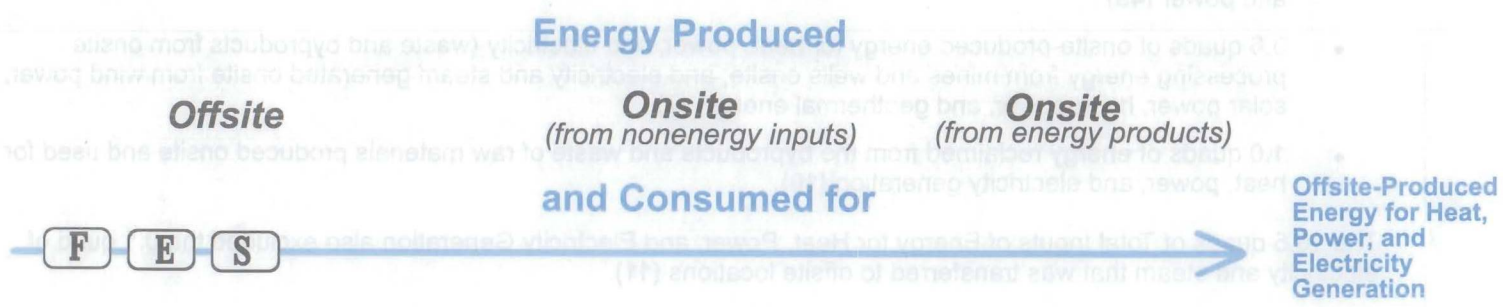
How Does EIA Measure Energy in the Manufacturing Sector?



The First Use of Energy for All Purposes includes all energy used in the manufacturing sector for two purposes--for heat, power, and electricity generation and as a nonenergy use (feedstock). Excluded are: (1) electricity generated by the establishment using a combustible fuel; (2) byproduct fuels produced onsite from energy inputs, such as coke from metallurgical coal; and (3) refinery crude oil inputs that end up as energy products sold to and used by other sectors. Refined products and byproducts used by the refinery are counted, as well as the energy content of products created for their physical or chemical properties rather than for their energy content such as waxes, asphalt, and lubricants. Steam is included under "Other."



Total Inputs of Energy for Heat, Power, and Electricity Generation includes energy used for heat, power, and electricity generation and byproduct fuels. Feedstock is excluded from this measure. Steam is included under "Other."



Offsite-Produced Energy for Heat, Power, and Electricity Generation includes all energy used for heat, power, and electricity generation purchased by the establishment or transferred into the establishment. Also included is steam that has been purchased or transferred from offsite. Feedstock and onsite-produced energy are excluded from this measure. Purchased steam is included under "Other."

Legend

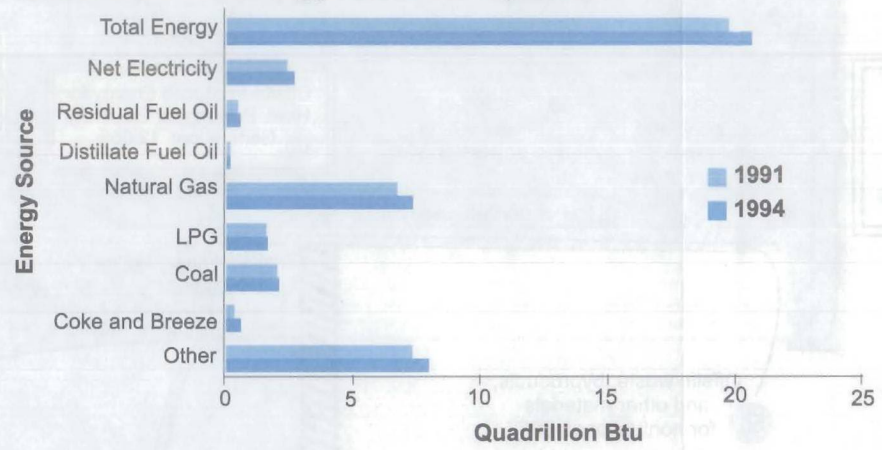
F Fuel | NF Nonfuel | E Electricity | S Steam

* Steam and electricity generated from renewables minus all sales and transfers offsite of steam and electricity, regardless of origin.

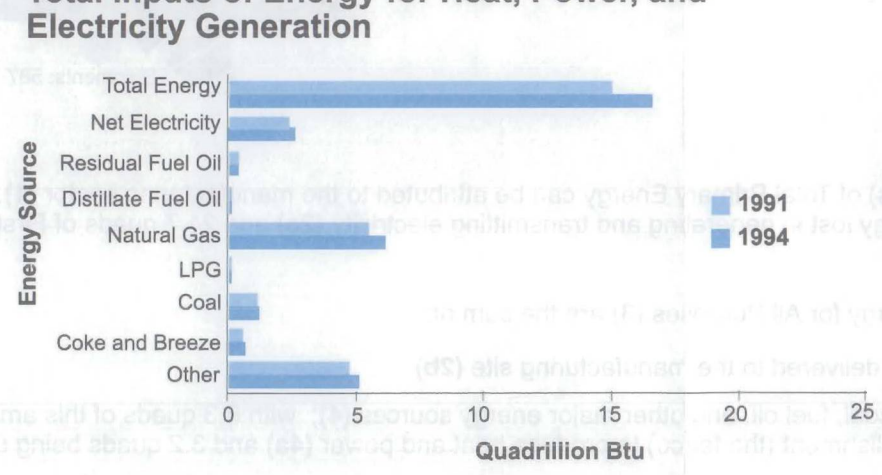
How Much Energy Did the Sector Consume in 1991 and 1994?

Improvements in the economic conditions in the manufacturing sector between 1991 and 1994 are reflected in the 4-percent growth of the most comprehensive measure of energy use, First Use of Energy for All Purposes. The largest percent increases belong to net electricity, natural gas, and coke and breeze, 12 percent, 12 percent, and 47 percent, respectively.

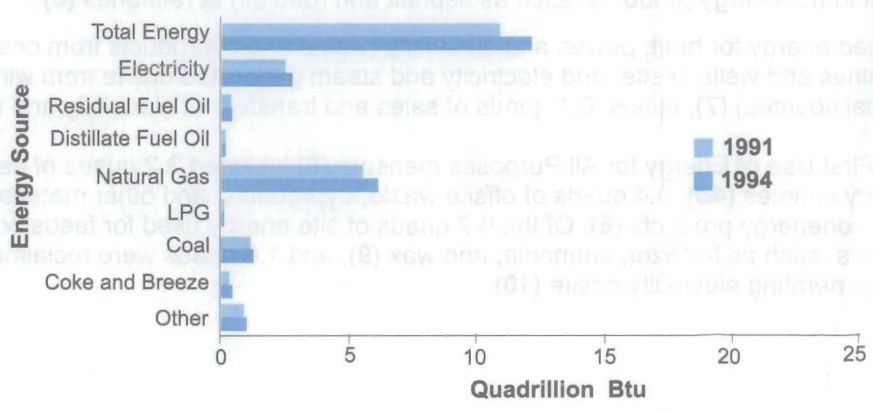
First Use of Energy for All Purposes



Total Inputs of Energy for Heat, Power, and Electricity Generation



Offsite-Produced Energy for Heat, Power, and Electricity Generation



Net electricity, defined as electricity purchased, transferred in, or generated from noncombustible energy sources minus sales and transfers offsite, has two large users. In 1994, out of all of the net electricity in the manufacturing sector, the chemical and the primary metal industries' shares were 20 percent and 19 percent, respectively. Between 1991 and 1994, energy use by the primary metal industries was constant, whereas energy use by the chemical industry grew by 18 percent.

In 1994, **natural gas** accounted for 32 percent of First Use of Energy for All Purposes. Thirty-eight percent of the natural gas was used by the chemical industry. Between 1991 and 1994, the industry increased its natural gas use by 15 percent.

Almost all **coke and breeze** is used in the primary metal industries. From 1991 to 1994, that industry's coke and breeze use increased by 54 percent, led predominately by use in blast furnaces and steel mills. Blast furnaces and steel mills also increased their use of coal by 8.8 percent, indicating that the growth in coke and breeze may not have been a substitution effect, but rather the effect of an increase in output.

How Did Manufacturers' Energy Prices, Quantities Purchased, and Expenditures in 1994 Compare With Those in 1991? (Annualized Rate Change)

Prices Were Lower for Most of the Purchased Energy Sources
(1994 dollars per unit)

	Electricity	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coke and Breeze	Liquefied Petroleum Gas
	↓ 2.7%	↑ 1.2%	↓ 5.1%	↓ 2.0%	↓ 2.8%	↓ 4.1%	↓ 2.5%
	Kilowatthour	Thousand Cubic Feet	Barrel	Barrel	Short Ton	Short Ton	Barrel
1991	$.050	$2.56	$35.36	$17.24	$45.65	$121.78	$18.74
1994	$.046	$2.65	$29.92	$16.20	$41.85	$106.89	$17.31

Manufacturers Bought More Energy for Most of the Purchased Energy Sources
(physical units)

	Electricity	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coke and Breeze	Liquefied Petroleum Gas
	↑ 4.3%	↑ 4.5%	↑ 2.0%	↑ 3.2%	↑ 3.5%	↑ 21.1%	↓ 0.9%
	Million Kilowatthours	Billion Cubic Feet	Thousand Barrels	Thousand Barrels	Thousand Short Tons	Thousand Short Tons	Thousand Barrels
1991	697,553	5,713	24,442	61,475	78,616	9,340	336,791
1994	788,070	6,490	25,939	67,343	86,920	15,259	328,117

Manufacturers Spent More Dollars for Some of the Purchased Energy Sources
(million 1994 dollars)

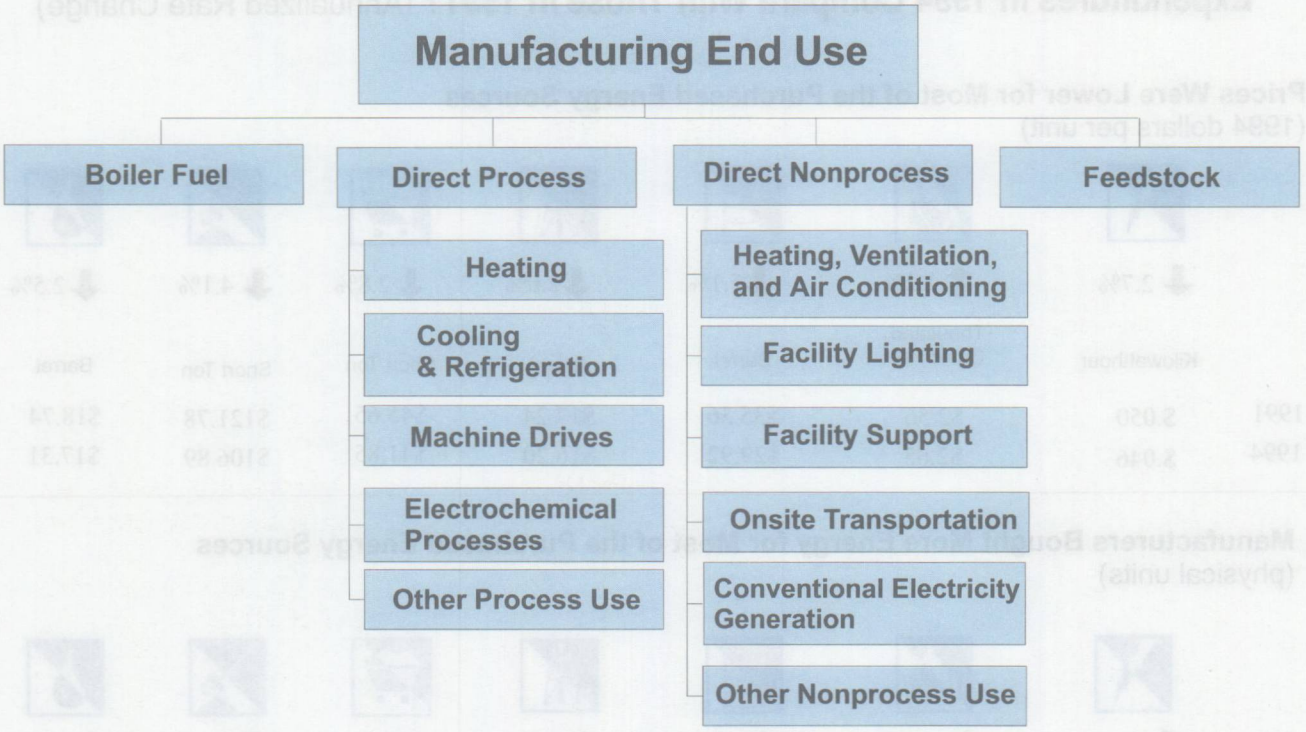
	Electricity	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coke and Breeze	Liquefied Petroleum Gas
	↑ 1.3%	↑ 5.9%	↓ 3.4%	↑ 1.0%	↑ .05%	↑ 14.5%	↓ 3.3%
1991	$34,638	$14,630	$864	$1,060	$3,589	$1,137	$6,311
1994	$35,970	$17,216	$776	$1,091	$3,638	$1,631	$5,681

Legend: Electricity, Natural Gas, Distillate Fuel Oil, Residual Fuel Oil, Coal, Coke and Breeze, Liquefied Petroleum Gas

Notes: ●All percents were calculated at an annualized rate change. ●Nominal dollars were converted to real 1994 dollars using the chain-type indexes for Gross Domestic Product (1992=1.0) as published by the U.S. Department of Commerce, Bureau of Economic Analysis. See the glossary for a detailed definition of "real dollars."

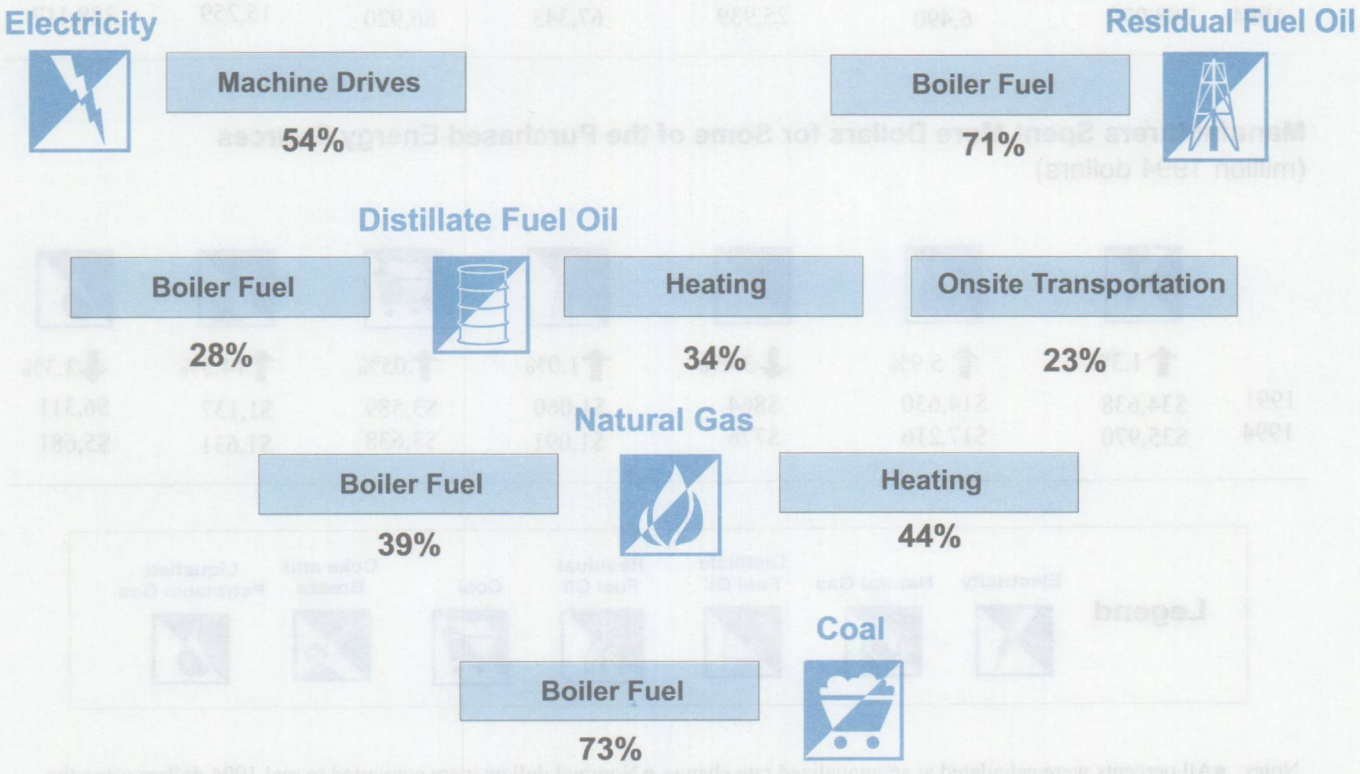
Source: Energy Information Administration, 1991 and 1994 Manufacturing Energy Consumption Surveys.

How Do Manufacturers Use Energy?



Major End Uses of Some Common Energy Sources

(Percent of the Energy Source Used for the Particular End Use)



Note: Calculations are based on the energy measure "Total Inputs of Energy for Heat, Power, and Electricity Generation."

What Important Changes Took Place From 1991 to 1994?

Electricity Use Increased

12% All Manufacturing

17%

Chemical Industry

13%

Petroleum Refining Industry

Trends in Onsite-Electricity Generation

Cogeneration
(Energy sources used include fossil fuels, wood, and other biomass.) 12%

Renewables Used To Generate Electricity by Means Other Than Cogeneration 34%

Trends in Feedstock Energy Use

Residual Fuel Oil

20%

Natural Gas

18%

Use of the Byproduct Petroleum Coke Grew

40% All Manufacturing

Net Electricity Increased

Between 1991 and 1994, the manufacturing sector increased use of net electricity by 12 percent. Most of this increase was in two industries--the chemical and petroleum refining industries. Leading the 17-percent growth in the chemical industry was an increase in the use of machine drives. Net electricity for machine drives increased by 9 percent. The petroleum refining industry displayed similar results. Leading the 13-percent growth in net electricity was a 9-percent growth in the use of electricity for its machine drives.

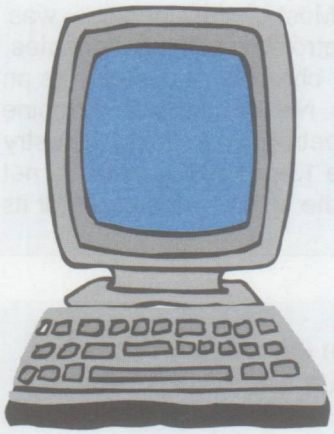
Onsite-Electricity Generation Increased, While the Use of Renewables to Generate Electricity Declined

In both 1991 and 1994, 84 percent of manufacturing electricity demand was produced outside of the establishments, while the other 16 percent was generated onsite. What did change was the mix in the sources and the amount of onsite-generated electricity. The manufacturing sector experienced a sizable decline (34 percent) in the amount of electricity generated onsite using renewable energy (excluding wood and other biomass which is represented in cogeneration). During the same time, total onsite-generated electricity increased by 10 percent. The increase was driven by a 12-percent rise in the amount of cogenerated electricity--the dominant subcategory of onsite-generated electricity, although the share of cogenerated electricity in electricity demand remained at 14 percent.

The paper industry has historically been dominant in using renewable energy (mainly hydropower) to generate electricity onsite. In fact, the paper industry's share of manufacturing self-generation from renewables rose from 64 percent in 1991 to 85 percent in 1994, even though the amount of renewables-based generation in the paper industry dropped by 13 percent during that period. Obviously, the estimated amount of renewables-based electricity decreased drastically in other industries. However, data suppression for confidentiality protection prevents analysis of those other industries.

The MECS does not provide data on the reasons for the decline in hydropower. However, several legal and market developments during the 1991 to 1994 period may have caused some existing operations to be shut down and prevented new investments in hydropower. During that time period, there was an unusual number of hydropower projects up for license renewal by the Federal Energy Regulatory Commission; hydropower generators were aging, and low-priced imported electricity became readily available along the Great Lakes. In May 1994, the U.S. Supreme Court held that States may impose conditions on hydroelectric operations as part of their authority under the Clean Water Act of 1977 and new water quality initiatives were anticipated such as the Great Lakes Water Quality Initiative (officially released in March 1995--6 years after the start of negotiations). Additionally, earlier this decade, wood supply was severely constricted in the Northwest. As a result, some paper industry establishments moved to the South where there are very limited amounts of hydropower.

What Are Some of the Most Important Changes That Took Place in Energy Management Activities From 1991 to 1994?



Computer Control of the Building Environment (e.g., lights, air conditioning)

This technology was used in establishments that accounted for 5.1 quadrillion Btu in 1994.

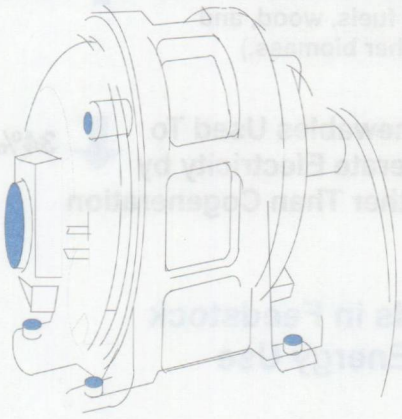
↑ 65%

Computer Control of Processes or Major Energy-Using Equipment (e.g., boilers)

This technology was used in establishments that accounted for 12.1 quadrillion Btu in 1994.

↑ 18%

Adjustable-Speed Motors



This technology was used in establishments that accounted for 11.3 quadrillion Btu in 1994.

↑ 31%

Participation in at Least One Energy Management Program (e.g., utility, government, or self sponsorship)

Establishments participating accounted for 12.6 quadrillion Btu in 1994.

↑ 17%

Participation in at Least One Equipment Rebate

Establishments participating accounted for 2.5 quadrillion Btu in 1994.

↑ 220%

1. Introduction

Manufacturing Consumption of Energy 1994 provides estimates on energy consumption in the manufacturing sector of the U.S. economy.[1] The estimates are based on data from the 1994 Manufacturing Energy Consumption Survey (MECS). The MECS, administered by the Energy Information Administration (EIA), is the most comprehensive source of national-level data on energy-related information about the manufacturing industries.

Manufacturing Energy Consumption Surveys

To determine how energy is used in the manufacturing sector, EIA gathers information from a national representative sample of the manufacturing establishments that transform input materials or substances into new products, assemble components, or perform blending operations.[2] In 1994, of the approximately 380 thousand manufacturing establishments in the United States, the MECS sample represented about 250 thousand of the largest establishments. Those establishments account for approximately 98 percent of U.S. economic output from manufacturing and an expected similar proportion of manufacturing energy use. The amount of energy an establishment uses is collected for all of its operations and not solely for the amount of energy used in manufacturing its product.

The 1994 MECS is EIA's fourth survey of the manufacturing sector. Previous manufacturing surveys were conducted in 1986, 1989, and 1992 (for reporting years 1985, 1988, and 1991, respectively). The next manufacturing survey will be conducted for reporting year 1998, with subsequent surveys being conducted every 4 years thereafter.

The sample design of the 1985, 1991, and 1994 surveys differed somewhat from that of the 1988 survey, which necessitates that care be exercised when comparing estimates from the four surveys. The 1988 sample represented 100 percent of manufacturing energy use, but it included statistical adjustments to account for 2 percent of the population, namely the smallest manufacturing establishments. The 1985, 1991, and 1994 samples represented 98 percent of the population, without any statistical adjustment.

The MECS is conducted under the authority of the Federal Energy Administration Act of 1974, Public Law 93-275, as amended, and Section 205 of the Department of Energy Organization Act, Public Law 95-91, as amended by Section 3102 of the Omnibus Budget Reconciliation Act of 1986, Public Law 99-509.[3]

On behalf of EIA, the Manufacturing and Construction Division of the Bureau of the Census collects and compiles the data. All data reported to the Bureau of the Census are confidential under the provisions of Section 9, Title 13, of the U.S. Code. EIA gratefully acknowledges the cooperation of the respondents in supplying the information used to produce the estimates in this report.

Organization of This Report

This introductory chapter is followed by three more chapters:

- Chapter 2 presents the reader with a brief summary of what is new in the 1994 MECS, along with four questions that demonstrate how the new data can be used to analyze energy consumption by the manufacturing sector.

- Chapter 3 presents profiles for the four major energy-consuming manufacturing industries: the petroleum refining, chemical, paper, and primary metal industries.

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[1]The energy data used in this report do not reflect adjustments for losses in electricity generation or transmission.

[2]The manufacturing sector is composed of establishments classified in Standard Industrial Classification 20 through 39 of the U.S. economy as defined by the Office of Management and Budget. The manufacturing sector is a part of the industrial sector, which also includes mining; construction; and agriculture, forestry, and fishing.

[3]The EIA also conducts energy consumption surveys in the residential, commercial buildings, and residential transportation sectors: the Residential Energy Consumption Survey (RECS); the Commercial Buildings Energy Consumption Survey (CBECS); and, until recently, the Residential Transportation Energy Consumption Survey (RTECS).

- Chapter 4 presents "How Changing Energy Markets Affect Manufacturing," a feature article analyzing the effects of changes in the natural gas and electricity markets on the manufacturing sector.

Seven appendices follow the chapters:

- Appendix A presents detailed statistical tables that provide measures of data reliability (relative standard errors) as factors in the rows and columns of the data tables.[4]

  The tables presented in this publication have been enhanced in two ways. First, additional data have been incorporated into tables that were present in 1991. Most of the time, those additional data are "the number of establishments," collected for the first time in the 1994 MECS. An example is Table A1: a Part 5 has been added to present the number of establishments.

  Secondly, new tables have been added. New tables are A7, "floorspace"; A29, "demand-side management"; A32, A34-A36, A38-A40, and A45, "fuel switching"; and A47, "wood used as energy."

- Appendix B explains the sample design of and the estimation and implementation procedures for the MECS.

- Appendix C discusses the quality of the data.

- Appendix D provides copies of the forms used to collect the MECS data, Forms EIA-846 A through C, on which the estimates in this report are based, unless otherwise noted.

- Appendix E provides a map of the U.S. Census Regions and Divisions.

- Appendix F describes the major industrial groups and selected industries.

- Appendix G presents metric conversion factors.

- Appendix H lists related energy consumption publications for readers interested in earlier MECS publications or consumption reports for other sectors.

A glossary of statistical and engineering terms used in this report follows the appendices.

A Guide to the Tables in This Report

	Table
Energy	
Consumption	A1-A6
End Use	A9, A10
Management	A24, A25
Operating Ratios	A23
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Motors	A41, A42
Wood	A43

[4]To better serve the user community, EIA has made those tables and other, more detailed, tables available electronically at http://www.eia.doe.gov/emeu/mecs/contents.html.

2. New in the 1994 MECS

1994 MECS Sample

In 1994, the MECS sample size was increased by roughly 40 percent. The increase allows the Energy Information Administration (EIA) to publish separate estimates for 52 industries and industry groups, nine more than in the 1991 MECS. The larger sample also provided reliable data for energy consumption at the geographic level of nine Census divisions.

New 1994 Data

In addition to the new data analyzed on these two pages, cogeneration technologies, biomass, number of establishments, and square footage, other new data are available from the 1994 MECS. For the first time, data on actual fuel switching between natural gas and fuel oil are available. Other newly available data cover methods that manufacturers most commonly used to purchase and make modifications to electric motor systems, participation in the U.S. Department of Energy's Motor Challenge Program, and participation in the Environmental Protection Agency's Green Lights and Energy Star programs.

What Type of Cogeneration Technologies Did the Largest Cogenerator Use in 1994?

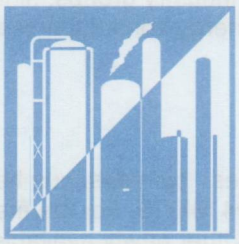
Paper Industry

The largest cogenerator, the paper industry, cogenerated 51 billion kilowatthours of electricity in 1994 (Table A12). The cogeneration technology most used was the steam turbine supplied by bed boilers (61 percent of the cogenerated electricity). Twenty-three percent of the paper industry's cogeneration occurred in establishments where two or more different types of cogeneration technologies were used (Table A13).

What Types of Biomass Are Used as an Energy Source, How Much Is Used, and by Whom?

In the manufacturing sector, biomass, used as an energy source, consists of agricultural wastes, wood directly harvested from trees, wood residues from mill processing, and wood-related and paper-related refuse. In 1994, biomass accounted for 831 trillion Btu of energy used for heat, power, and electricity generation, and wood residues from mill processing accounted for 61 percent of that amount. The paper industry used the most biomass, 49 percent in 1994. The next largest user, the lumber industry, accounted for 33 percent, followed by the food industry, which accounted for 13 percent (Table A43).

Do the Industries That Consume the Most Energy Also Have the Largest Number of Establishments?



Petroleum Refining Industry

No, there is not necessarily a correlation between the amount of energy used and the number of establishments. In 1994, the petroleum refining industry used 29 percent of all the energy but accounted for only 1 percent of the establishments. In contrast, the printing industry had the largest percent of establishments, but used less than 1 percent of the energy (Table A1, Part 1 and Part 5).

Do the Industries That Have the Most Square Footage Also Have High Energy Intensities?

Chemical Industry

No, in the manufacturing sector, there is not necessarily a correlation between square footage and the intensity of energy use. The chemical industry had the largest amount of floorspace of any of the major users of energy (808 million square feet). That amount of floorspace was only about 67 percent as much as the industry with the most floorspace--the fabricated metal industries. The energy intensity for the chemical industry was 21 times higher than the energy intensity for the fabricated metal industries (6.6 million Btu per square foot versus .31 million Btu per square foot). The chemical industry accounted for almost 25 percent of manufacturing energy use, while the fabricated metal industries accounted for only 2 percent (Tables A7 and A1, Part 1).

3. Industry Profiles: Major Energy Consumers

In 1994, there were 246,855 manufacturing establishments in the manufacturing population covered by the MECS that used at least one energy source. Just 9 percent of the establishments accounted for almost 78 percent of all of the energy used in the manufacturing sector as measured by "Total First Use of Energy for All Purposes." Those establishments belong to only four major industry groups, defined by 2-digit Standard Industrial Classification (SIC) codes. This chapter presents individual profiles of each of the four major energy-consuming industries.

The Four Major Energy Consumers in the Manufacturing Sector

Petroleum and Coal Products (SIC 29). The petroleum refining industry is the largest consumer of energy in the manufacturing sector. Large amounts of energy are used to produce energy. Establishments in this group are engaged primarily in refining petroleum, manufacturing paving and roofing materials, and compounding lubricating oils and greases from purchased materials.

Chemicals and Allied Products (SIC 28). The chemical industry includes establishments producing basic chemicals. It also includes establishments that use predominately chemical processes to manufacture products used in further manufacture, producing such products as synthetic fibers and plastics; or as a final product for consumption, such as drugs and cosmetics; or as materials and supplies, such as paints and fertilizers.

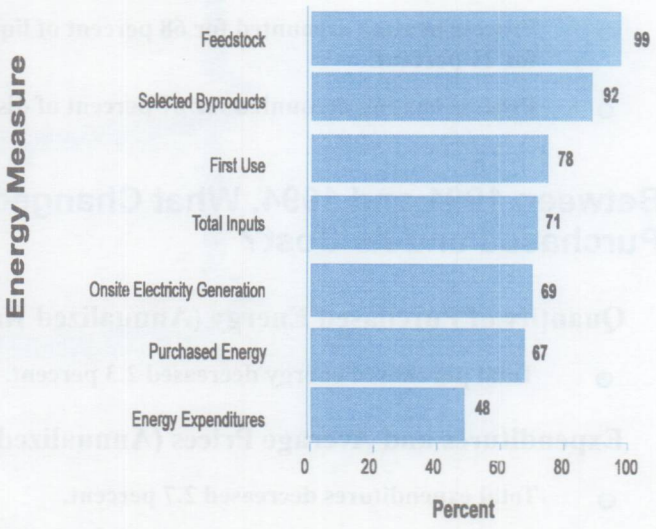
Paper and Allied Products (SIC 26). The paper industry includes establishments called pulp mills that are engaged primarily in the manufacture of pulps from wood and other cellulose fibers, rags, wastepaper, and straw. It also includes paper and paperboard mills, which manufacture paper and convert paper into products such as napkins and paperboard.

Primary Metal Industries (SIC 33). The metal industries include establishments engaged in smelting and refining ferrous and nonferrous metals from ore, pig, or scrap. Also, refined metals, such as steel, iron, and aluminum, are rolled and turned into basic shapes, such as plates, sheets, strips, rods, bars, and tubing. Establishments participating in the manufacture of alloys and copper smelting also belong to this group.

Quantities of Energy and Expenditures for the Four Major Energy Consumers

In 1994, the four major energy consumers accounted for 99 percent of all energy consumed as feedstock and 92 percent of the byproduct energy (a secondary product from the feedstock use of energy or from the processing of nonenergy materials) (Figure 3.1). With feedstock excluded, these four industries accounted for 71 percent of the measure "Total Inputs of Energy for Heat, Power, and Electricity Generation." Although they purchased 67 percent of all purchased energy, they spent only 48 percent of all of the dollars spent on energy in the manufacturing sector. The four industries also generated the most electricity--69 percent of all electricity generated by the manufacturing sector.

Figure 3.1. Percent of Total Energy Measure by the Four Major Energy Consumers, 1994



Source: Energy Information Administration, 1994 Manufacturing Energy Consumption Survey.

Petroleum and Coal Products (SIC 29)

How Much Energy Did the Petroleum Refining Industry Use in 1994?

First Use of Energy for All Purposes:

- The petroleum refining industry used 6,339 trillion Btu of energy--29 percent of total manufacturing energy use.
- It used 50 percent as feedstock (a nonenergy use).

For Which Energy Sources Did the Petroleum Refining Industry Spend the Most Dollars?

Energy Expenditures:

- Forty-seven percent of the expenditures were for natural gas, with an average price of $2.26 per 1,000 cubic feet--25 percent lower than the average price for the rest of the manufacturing sector.
- Most of the remaining expenditures were for electricity--38 percent in 1991 (the most recent year for which data were available).

What Were the Most Important Energy End Uses?

End Use of Total Inputs of Energy for Heat, Power, and Electricity Generation:

- Machine drives accounted for 80 percent of net electricity use.
- Boiler fuel accounted for 52 percent of residual fuel oil use; process heating accounted for 40 percent.
- Process heating accounted for 68 percent of liquefied petroleum gas use; boiler fuel accounted for 21 percent.
- Process heating accounted for 67 percent of distillate fuel oil use.

Between 1991 and 1994, What Changed in the Amount of Energy Purchased and Its Cost?

Quantity of Purchased Energy (Annualized Rates):

- Total purchased energy decreased 2.3 percent.

Expenditures and Average Prices (Annualized Rates):

- Total expenditures decreased 2.7 percent.
- Natural gas expenditures grew 2.1 percent and average prices grew 1.2 percent.

Chemicals and Allied Products (SIC 28)

How Much Energy Did the Chemical Industry Use in 1994?

First Use of Energy for All Purposes:

- The chemical industry used 5,328 trillion Btu of energy--25 percent of total manufacturing energy use.
- It used 46 percent as feedstock (a nonenergy use).
- Ninety-five percent of all liquefied petroleum gas (LPG) used in the manufacturing sector was used by this industry, mostly as feedstock.

For Which Energy Sources Did the Chemical Industry Spend the Most Dollars?

Energy Expenditures:

- In 1994, the chemical industry accounted for 26 percent of all energy expenditures in the manufacturing sector.
- Of total expenditures, electricity accounted for 30 percent, LPG accounted for 30 percent, and natural gas accounted for 30 percent..

What Were the Most Important Energy End Uses?

End Use of Total Inputs of Energy for Heat, Power, and Electricity Generation:

- Machine drives accounted for 62 percent of net electricity use.
- Boiler fuel accounted for 62 percent of residual fuel oil use.
- Boiler fuel accounted for 49 percent of natural gas use; process heating accounted for 33 percent.
- Boiler fuel accounted for 95 percent of coal use.

Between 1991 and 1994, What Changed in the Amount of Energy Purchased and Its Cost?

Quantity of Purchased Energy (Annualized Rates):

- Total purchased energy increased 6.7 percent.
- Purchased electricity increased 6.2 percent.
- Purchased natural gas increased 5.7 percent.

Expenditures and Average Prices (Annualized Rates):

- Total expenditures grew 1.7 percent, while average prices fell 4.2 percent.
- Electricity expenditures grew 3.7 percent, while average prices fell 2.1 percent.
- Natural gas expenditures grew 9.7 percent and average prices increased 3.4 percent.

Paper and Allied Products (SIC 26)

How Much Energy Did the Paper Industry Use in 1994?

First Use of Energy for All Purposes:

- The paper industry used 2,665 trillion Btu of energy--12 percent of total manufacturing energy use.
- It used 35 percent of all residual fuel oil used in the manufacturing sector.

For Which Energy Sources Did the Paper Industry Spend the Most Dollars?

Energy Expenditures:

- Almost half of the expenditures were for electricity, with an average price of 4.1 cents per kilowatthour--8 percent lower than the average price paid by the rest of the manufacturing sector.
- Twenty-three percent of the expenditures were for natural gas with an average price of $2.61 per 1,000 cubic feet--11 percent lower than the average price for the rest of the manufacturing sector.

What Were the Most Important End Uses?

End Use of Total Inputs of Energy for Heat, Power, and Electricity Generation:

- Machine drives accounted for 80 percent of net electricity use.
- Boiler fuel accounted for 80 percent of residual fuel oil use.
- Boiler fuel accounted for 70 percent of natural gas use.
- Boiler fuel accounted for 98 percent of coal use.

Between 1991 and 1994, What Changed in the Amount of Energy Purchased and Its Cost?

Quantity of Purchased Energy (Annualized Rates):

- Purchased electricity increased 4.1 percent.
- Residual fuel oil purchases increased 4.2 percent.

Expenditures and Average Prices (Annualized Rates):

- Total expenditures grew 1.2 percent.
- Electricity expenditures grew 1.0 percent, while average prices fell 2.7 percent.

Primary Metal Industries (SIC 33)

How Much Energy Did the Metal Industries Use in 1994?

First Use of Energy for All Purposes:

- The metal industries used 2,462 trillion Btu of energy--11 percent of total manufacturing energy use.
- It used 39 percent as feedstock (a nonenergy use).
- Ninety-five percent of all coke and breeze used in the manufacturing sector was used by this industry.
- Forty percent of coal used in the manufacturing sector was used by the metal industries, mostly as feedstock.

For Which Energy Sources Did the Metal Industries Spend the Most Dollars?

Energy Expenditures:

- Sixteen percent of all energy expenditures for the manufacturing sector were in this industry.
- Almost two-thirds of the expenditures in this industry occurred in the blast furnace and steel mills industry (SIC 331).

What Were the Most Important End Uses?

End Use of Total Inputs of Energy for Heat, Power, and Electricity Generation:

- Process heating accounted for 24 percent, machine drives accounted for 30 percent, and electrochemical processes accounted for 36 percent.
- Boiler fuel accounted for 70 percent of residual fuel oil use; process heating accounted for 30 percent.
- Boiler fuel accounted for 83 percent of coal use.
- Process heating accounted for 76 percent of natural gas use.

Between 1991 and 1994, What Changed in the Amount of Energy Purchased and Its Cost?

Quantity of Purchased Energy (Annualized Rates):

- Purchased coal increased by 7.7 percent.
- Purchased coke and breeze increased 25.2 percent.

Expenditures and Average Prices (Annualized Rates):

- Total expenditures grew 2.1 percent.
- Coal expenditures grew 3.3 percent, while average prices fell 3.6 percent.
- Coke and breeze expenditures grew 16.8 percent, while average prices fell 4.8 percent.

4. Feature Article: How Changing Energy Markets Affect Manufacturing

Introduction

The market for natural gas has been changing for quite some time. As part of natural gas restructuring, gas pipelines were opened to multiple users. Manufacturers or their representatives could go directly to the wellhead to purchase their natural gas, arrange the transportation, and have the natural gas delivered either by the local distribution company or directly through a connecting pipeline.

More recently, the electricity markets have been undergoing change. When Congress passed the Energy Policy Act of 1992, requirements were included not only to open access to the ownership of electricity generation, but also to open access to the transmission lines so that wholesale trade in electricity would be possible. Now several States, including California and Pennsylvania, have passed laws opening electricity markets to retail competition. Other States are considering similar laws while the U.S. Congress debates proposed Federal legislation.

Manufacturers spend a lot of their dollars on energy--approximately $69.2 billion in 1994. Most of their energy expenditures were used to purchase electricity and natural gas (77 percent). What happens in those two energy markets affects the manufacturing sector. In turn, the manufacturing sector's high market share for both energy sources affects the natural gas and electricity markets.

This chapter takes a brief look at the natural gas and electricity markets. It is organized into three sections with a view to answering the following questions.

Natural Gas Market. Why did the natural gas market undergo restructuring? How did the market change? Did natural gas restructuring affect the way manufacturers obtain their natural gas, the amount they purchase, or the prices they pay for their natural gas?

Electricity Market. Why is the electricity market changing? How is it changing? How did manufacturers obtain their electricity in 1994? How much did they pay for electricity and how much did they use? What did they use the electricity for? What changes might take place in the manufacturing sector in response to the present restructuring of the electricity market?

Lessons From Natural Gas Restructuring. Will manufacturers be able to look at how natural gas restructuring has affected them and whether they can expect similar results in a restructured electricity market? What are the implications of the restructured energy markets for Energy Information Administration (EIA) data collections from manufacturing establishments?

Natural Gas Market

Impetus for Change in the Natural Gas Market

The natural gas market faced by manufacturers today is significantly different from that of 20 years ago. At that time, rising natural gas prices and difficulty in obtaining supplies gave the impression that natural gas had become a scarce resource. Early Federal action to deal with those problems resulted in legislation in the late 1970's. The legislation discouraged the use of natural gas (and petroleum products) in large industrial boilers[5] and established pricing categories for wellhead gas production[6] that did not allow the sending of competitive price signals in the marketplace.

In the past, manufacturers had one source of natural gas supply, the gas utility (local distribution company). Because gas distribution was such an expensive effort, distribution companies were regulated monopolies with exclusive rights to provide gas service in their franchise areas. Thus, there were few opportunities for manufacturers to save on their gas bills by seeking out different sources of natural gas supply.

Change in the Natural Gas Market

Market forces and a new regulatory initiative brought about significant changes in the options manufacturers had for getting natural gas. In 1985, the Federal Energy Regulatory Commission (FERC) issued Order 436, which allowed interstate pipeline companies to become "open-access" transporters. A "spot" market in natural gas also developed as producers made gas that was not already dedicated to the pipeline companies available for purchase by any buyer.[7]

Prior to becoming open-access transporters, interstate pipeline companies generally purchased natural gas from producers, transported it, and sold it to local distribution companies (LDCs), who then sold and transported the gas to manufacturers. An LDC's bill for a gas sale includes the cost of the natural gas itself and the cost of transporting it to the manufacturer. The cost of the gas is the weighted average cost of gas purchased by the LDC from all sources. This same average cost is passed on to all of the LDC's sales customers—manufacturers, commercial establishments, residential users, and others.

When interstate pipeline companies became transporters, manufacturers then had the option, with regulatory approval, of bypassing their gas utilities through a direct connection with the pipeline company. Manufacturers could purchase natural gas at the wellhead and become shippers on an interstate pipeline, paying to have the gas they purchased transported on the pipeline and delivered to their site. Manufacturers must compare the cost of constructing the pipeline connection and paying separately for transportation on the pipeline with the savings they can achieve by purchasing gas at the wellhead at a lower price than the weighted average price their LDCs would charge them.

Such arrangements are usually economical only for large-volume gas users. However, even smaller manufacturers, or those at great distances from interstate pipeline systems, generally benefit from this changed role of the pipeline companies. Gas utilities themselves were able to contract independently for natural gas supplies and use the pipeline company only for transportation. As a result, many LDCs were able to reduce their weighted average cost of purchasing natural gas, benefiting all classes of LDC customers.[8]

[5]Powerplant and Industrial Fuel Use Act of 1978 (PIFUA).

[6]Natural Gas Policy Act of 1978 (NGPA).

[7]See the Glossary for definitions of open-access transportation service and spot market.

[8]Energy Information Administration (EIA), *Natural Gas 1992: Issues and Trends*, DOE/EIA-0560(92) (Washington, DC, March 1993), Chapter 5, "Trends in End-Use Prices."

Many manufacturers have been able to use the threat of bypassing their local distribution company to negotiate more favorable terms with the LDC. Some LDCs offer large gas customers the option of purchasing only transportation service from the LDC. This enables the manufacturer to make its own purchases of natural gas and have the gas transported through the existing distribution network, rather than investing in a direct connection with the interstate pipeline. The LDC benefits by maintaining the transportation volume on its system and earning revenues from this service. This method of obtaining natural gas has been used by an increasing number of manufacturers since the late 1980's.

Most major interstate pipeline companies had become open-access transporters by the late 1980's; FERC's Order 636, which became effective on November 1, 1993, made it mandatory for all of them.

Along with greater options for manufacturers in obtaining natural gas came greater responsibilities related to transportation. When pipeline companies owned the gas moving through their systems, they were able to use the gas as needed for operating the pipeline system and to divert gas or make exchanges with other pipeline companies in order to respond quickly to changing customer demand. Now, the transportation contracts that manufacturers have with pipeline companies spell out the responsibilities the manufacturer has as a shipper on the pipeline. Some examples of those responsibilities are scheduling the amount of pipeline capacity required, balancing the flow of gas into and out of the pipeline, and arranging for the use of storage. All of these details must be agreed upon mutually between the manufacturer and the pipeline company so that the pipeline system remains operationally sound.

These complicating factors, along with the effort needed to find and negotiate for lower-cost supplies from producers, mean that it is usually only LDCs or companies like the larger manufacturers that are able to complete all their own arrangements to acquire natural gas today. These changes in the industry were one of the moving forces behind the appearance of a new player in the mid-1980's, the natural gas marketer.

Marketers may be independent or, as is increasingly the case, may be affiliated with a traditional natural gas company, such as a producer or a pipeline company. Marketers generally operate on low profit margins per unit of gas sold but make money by aggregating the needs of many customers and moving large amounts of natural gas. They enable smaller manufacturers (and even smaller LDCs, such as municipally owned utilities) to benefit from restructuring in the natural gas industry.

Today, a manufacturer has several options for obtaining natural gas. With a direct connection to a major pipeline, it may seek out the best purchase and transportation arrangements from the production area to its delivery point on the pipeline. It may continue to rely only on the LDC, but the LDC may, in turn, make all its own arrangements or may rely on a marketer to do so. Also, a manufacturer may directly contract with a marketer to make all arrangements from gas purchase to final delivery. The manufacturer's decision depends on its experience in the new natural gas market and the price and quality of service it can expect to receive from the many entities offering to provide it with natural gas.

Natural Gas Usage in the Manufacturing Sector

How Much Natural Gas Did Manufacturers Use? Manufacturers consumed 6.6 trillion cubic feet of natural gas in 1994, providing 32 percent of manufacturers' total first use of energy. Natural gas use by manufacturers increased an average 3.9 percent per year from the 5.9 trillion cubic feet consumed in 1991.

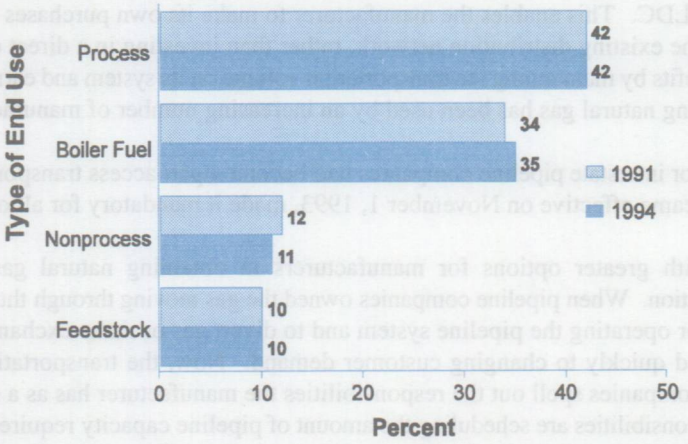
How Did Manufacturers Use Natural Gas? Manufacturers used natural gas in processes, in boilers, for nonprocess uses, and as feedstock. In 1991 and 1994, the proportions of total gas used in each area were almost identical (Figure 4.1).[9]

[9]For natural gas, the total quantity shown in Table A1, Total First Use of Energy for All Purposes, is equal to the sum of natural gas in Table A3, Total First Use of Combustible Energy for Nonfuel Purposes (i.e., feedstocks), and in Table A10 (A39 in 1991), Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity. The percentage for each type of natural gas use is the result of dividing the quantity for the type of use by total natural gas used, from Table A1.

Process use, most of it in the form of process heating, accounted for more manufacturing consumption of natural gas than any other application. In 1994, process use accounted for 42 percent of natural gas consumption. The second largest use was boiler fuel, which accounted for 35 percent of natural gas consumption in 1994. The use of natural gas for boiler fuel increased 4.5 percent annually between 1991 and 1994, reaching 2.3 trillion cubic feet.

Nonprocess uses of natural gas, which are split almost evenly between facility space heating and conventional electricity generation, increased only slightly between 1991 and 1994, resulting in a smaller share of total manufacturing consumption of gas in 1994, 11 percent. The use of natural gas as a feedstock showed stronger growth, increasing 5.5 percent annually between 1991 and 1994, and accounted for 10 percent of total consumption in both years.

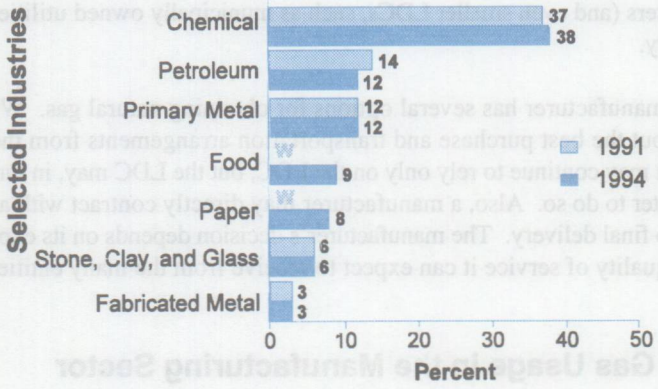
Figure 4.1 Percent of Total Natural Gas Consumption by Type of End Use, 1991 and 1994



Notes: Percentages were calculated using natural gas data in Table A1. That total is equal to the totals in Table A3 and Table A39 in 1991 MECS and Table A3 and Table A12 in 1994 MECS. In both 1991 and 1994, the type of end use was not reported for 2 percent of first-use quantities.
Sources: Energy Information Administration, 1991 and 1994 Manufacturing Energy Consumption Surveys.

Among the different types of manufacturers, the chemical industry consumed more than triple the amount of natural gas used by any other industry in 1994. The 2.5 trillion cubic feet of gas used by chemical establishments accounted for 38 percent of 1994 consumption (Figure 4.2). The petroleum and primary metal industries tied for second in 1994, each consuming 0.8 trillion cubic feet of gas and accounting for 12 percent of manufacturing consumption. The same three industries were the top consumers in 1991, when the shares of total consumption were 37 percent for the chemical industry, 14 percent for petroleum, and 12 percent for primary metal.

Figure 4.2. Percent of Total Natural Gas Consumption for Selected Industries, 1991 and 1994



W = 1991 data were withheld.
Note: Industries shown are the seven industries that consumed the most natural gas in 1994.
Sources: Energy Information Administration, 1991 and 1994 Manufacturing Energy Consumption Surveys.

The increase in natural gas consumption by the chemical industry between 1991 and 1994 drove the increase in consumption by manufacturers as a whole. The chemical industry consumed 333 billion cubic feet more natural gas in 1994 than in 1991, accounting for 46 percent of the increase by all manufacturing. The second largest contributor was the primary metal industry, which consumed 99 billion cubic feet more in 1994 than in 1991, or 14 percent of the total manufacturing increase. These changes correspond to 4.9 percent and 4.6 percent annual growth for these industries, respectively.

Does the EIA Manufacturing Energy Consumption Survey (MECS) Show Changes in Manufacturers' Sources of Natural Gas? By the early 1990's, manufacturers had many more ways of obtaining natural gas than they had even a decade earlier. In an attempt to capture these changes, the MECS, in both 1991 and 1994, asked manufacturers to identify the source of their natural gas. In 1991, the options were the utility, transmission pipelines, or other. In 1994, the options were the utility or a nonutility (for example, a pipeline company or a marketer).

In 1991, manufacturers reported that they purchased 37 percent of their natural gas from utilities. In the 1994 MECS, this share increased. The increase was unexpected, given the variety of options that manufacturers now have for obtaining natural gas. Marketers and other nonutility providers have been successful in luring customers away from the natural gas utilities because, as traditional utility contracts expire, they have been able to offer natural gas services at competitive prices. Large manufacturers in particular have the resources to seek out the best deals for natural gas from among their local distribution company and other natural gas providers.

After a preliminary investigation by EIA, there is evidence that a misclassification might have taken place in the 1994 MECS. Natural gas that was purchased from a source other than the LDC may have been classified as utility natural gas. Under these circumstances, EIA has decided to withhold all data that show a differentiation between utility and nonutility sources of gas, including quantities, expenditures, and average prices. Because of the restructuring of the natural gas market, the MECS is potentially the only source for nonutility expenditures and average prices. The value of such data is recognized and EIA plans to study why the potential misclassification may have taken place and what can be done to correct the situation before the 1998 MECS is fielded.

Does the EIA Supplier Survey Show Changes in Manufacturers' Sources of Natural Gas? EIA conducts a separate, annual survey of natural gas suppliers[10] that indirectly provides some insight into the natural gas purchasing patterns of manufacturers. In the supplier survey, the respondents are companies that physically deliver natural gas to the end user and are composed largely of local distribution companies and natural gas pipeline companies. These companies report the amount of gas they deliver by end-use sector: residential, commercial, industrial, and electric utility. It is the industrial sector that is relevant here because manufacturers are a subset of this sector and consume most of the natural gas that is delivered to the sector. In both 1991 and 1994, natural gas purchases reported in the MECS were 79 percent of the industrial deliveries reported in the supplier survey.

The MECS and the supplier survey differ in several important ways (Table 4.1), one being how they reflect changes in natural gas purchasing patterns.[11] The MECS attempted to have manufacturers identify the source of their natural gas (utility or nonutility). In the supplier survey, suppliers separate total natural gas deliveries into the amount they sold to the end user (onsystem gas) and the amount they simply transported for the end user (offsystem gas). The latter case occurs when a manufacturer purchases gas from a source other than the delivering company, for example, from a producer or a marketer.

The definition of utility and nonutility gas purchases in the MECS is different from that of onsystem and offsystem gas deliveries in the industrial sector,[12] yet the purchasing and delivery *trends* shown in the two surveys are expected to be similar. The same market forces that drive manufacturers away from utility purchases are the ones that drive them and other industrial consumers to offsystem suppliers, such as marketers. While the MECS results show an increase in the proportion of natural gas purchased from utilities, the supplier survey shows that the onsystem proportion of natural gas deliveries in the industrial sector has declined, from 33 percent in 1991 to 26 percent in 1994 (Figure 4.3). In fact, the

[10]Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." Data appear in EIA's *Natural Gas Annual*, DOE/EIA-0131.

[11]Further details can be found in EIA, *Manufacturing Consumption of Energy 1991*, DOE/EIA-0512(91) (Washington, DC, December 1994), Appendix D and EIA, *Natural Gas Monthly*, DOE/EIA 0130(94/11) (Washington, DC, November 1994), "Highlights: Comparability of Supply- and Consumption-Derived Estimates of Manufacturing Consumption of Natural Gas," pp. vii-ix.

[12]Consider the case of a pipeline company selling natural gas to a manufacturer. The pipeline company would report the sale as an onsystem delivery in the supplier survey, but that manufacturer would report its purchase as coming from a nonutility source in the MECS because the pipeline company is not the local gas utility.

Table 4.1. Comparing EIA's Surveys of Manufacturing Energy Consumption and Natural Gas Suppliers

Item	Manufacturing Survey	Supplier Survey
Respondents	Manufacturing establishments	Companies that make final delivery of natural gas (LDCs and pipelines)
End-User Classification	Manufacturers by SIC code	End-use sector: residential, commercial, industrial, and electric utility
Differences in Manufacturing and Industrial Coverage	Manufacturing • only nonutility generators of electricity at the manufacturing site	Industrial Sector • manufacturing • mining • construction • all nonutility generators of electricity
Sources of Natural Gas	Utility/LDC Nonutility/NonLDC	Onsystem (respondent owned and sold the gas to the end user) Offsystem (respondent only transported the gas for the end user; did not own or sell the gas)

SIC = Standard Industrial Classification.
LDC = Local Distribution Company.
Source: Energy Information Administration, Office of Energy Markets and End Use.

supplier survey shows a continuous decline in the onsystem proportion of industrial deliveries, from 85 percent in 1982 (the first year such data were available) to only 19 percent in 1996.[13]

How Much Did Manufacturers Pay for Natural Gas? The average price of natural gas paid by manufacturers was $2.65 per thousand cubic feet in 1994, a 1.1-percent real annual average increase from the 1991 level. During the same period, the national average wellhead price for natural gas showed 1.5 percent real annual growth, reaching $1.85 per thousand cubic feet in 1994.[14] The total growth in wellhead prices during the 1991 to 1994 period would have been stronger had the price not fallen by $0.24 per thousand cubic feet from 1993 to 1994. This drop at the end of the period probably helped to moderate the price of natural gas to manufacturers in 1994.

Regionally, average natural gas prices paid by manufacturers in 1994 were $2.40 per thousand cubic feet in the South, $2.64 in the West, $2.91 in the Midwest, and $3.64 in the Northeast. It is not surprising that the South had the lowest average price and the Northeast had the highest. Manufacturers in the South are much closer to the major gas-producing areas of the United States, while the Northeast is not only far from these areas, but also far from Canadian supplies, which are located mainly in the province of Alberta. The regional price spread in 1994 is somewhat more narrow than the one seen in 1991 when the prices per thousand cubic feet, in 1994 dollars, ranged from $2.20 in the South to $3.76 in the Northeast.

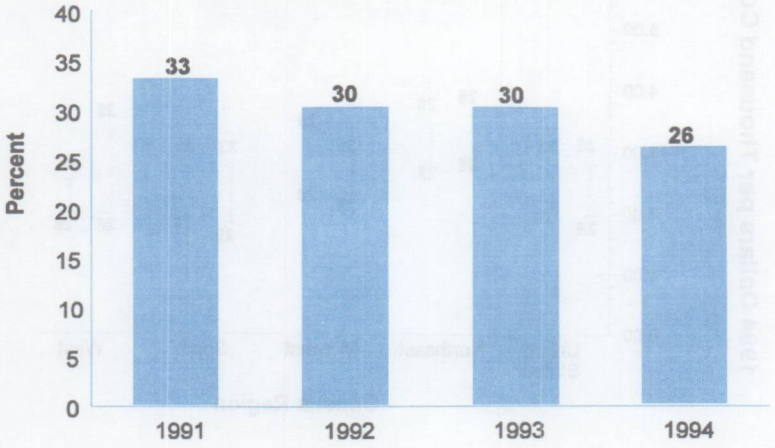
[13]Energy Information Administration (EIA), *Natural Gas Annual*, 1982-1996, DOE/EIA-0131 (Washington, DC).

[14]Natural gas wellhead price data are found in EIA, *Natural Gas Annual 1995*, DOE/EIA-0131(95) (Washington, DC, November 1996), Table 1. Data from the same source show that onsystem industrial prices also increased in real terms between 1991 and 1994, by 1.7 percent annually.

When considering regional natural gas prices across the different types of manufacturers, the range of prices is remarkably similar in 1991 and 1994, even after adjusting for inflation (Figure 4.4). In all but one case, either the chemical industry or the petroleum refining industry has the lowest price in the range, while the highest prices are accounted for by the furniture, rubber, leather, and miscellaneous industries.

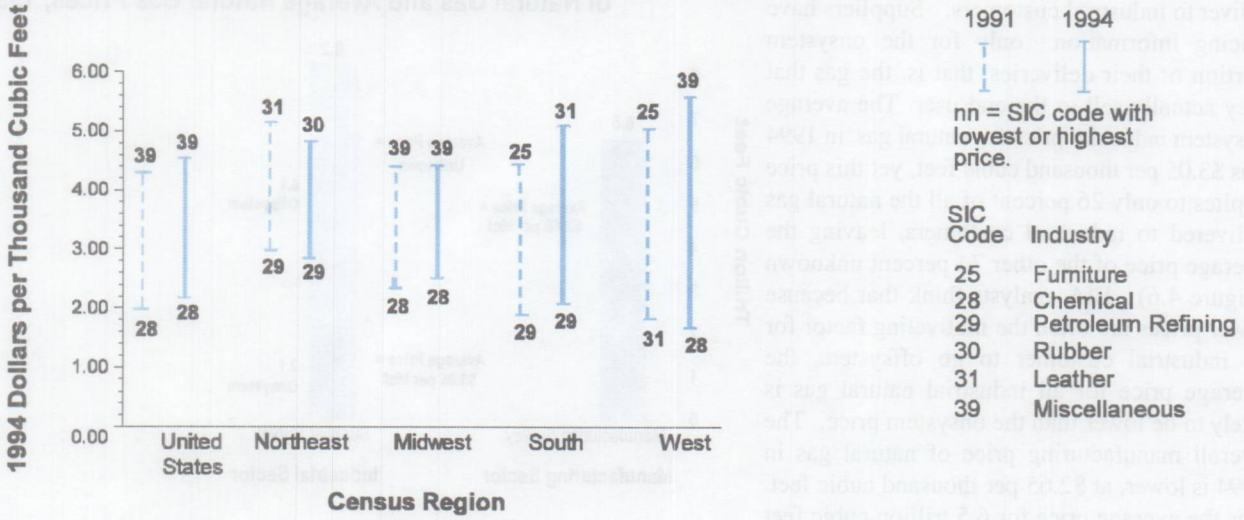
When only the top three gas-consuming industries are considered (chemical, petroleum refining, and primary metal industries in Figure 4.5), the range of prices seen in both 1991 and 1994 is much smaller than the range across all industries (compare Figures 4.5 and 4.4). The highest prices in the range for the top three industries are much lower than those for all industries, reflecting the ability of the major consuming industries to make the best arrangements for obtaining natural gas. It remains difficult, however, to discern any overall pattern in the price ranges between 1991 and 1994.

Figure 4.3. Onsystem Percent of Industrial Deliveries of Natural Gas, 1991-1994



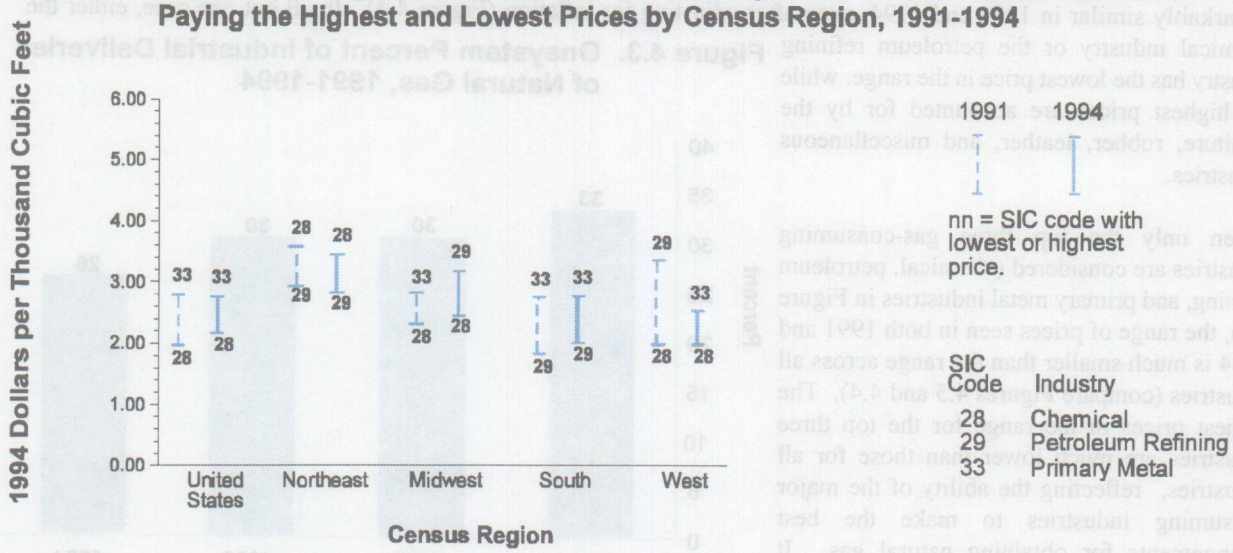
Source: Energy Information Administration, *Natural Gas Monthly*, DOE/EIA-0130(97/07) (Washington, DC, July 1997), Table 4.

Figure 4.4. Range of Average Natural Gas Prices and Industries Paying the Highest and Lowest Prices by Census Region, 1991 and 1994



SIC = Standard Industrial Classification.
Sources: Energy Information Administration, 1991 and 1994 Manufacturing Energy Consumption Surveys.

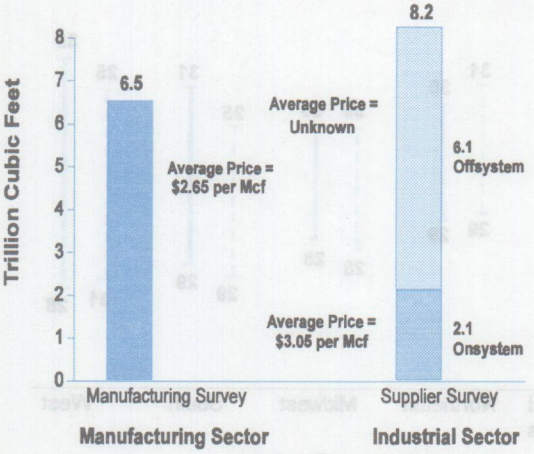
Figure 4.5. Range of Average Natural Gas Prices for the Top Three Consumers and Industries Paying the Highest and Lowest Prices by Census Region, 1991-1994



SIC = Standard Industrial Classification.
Sources: Energy Information Administration, 1991 and 1994 Manufacturing Energy Consumption Surveys.

What Have Been the Effects of Restruc-turing on Information on the Price of Natural Gas? Data on the price of natural gas from utilities and nonutilities turned out to be difficult to obtain in the 1994 MECS. However, the overall average price paid by manufacturers is still of value, considering that EIA's supplier survey also lacks data on prices. As mentioned earlier, natural gas suppliers may either sell or merely transport the gas that they deliver to industrial customers. Suppliers have pricing information only for the onsystem portion of their deliveries, that is, the gas that they actually sell to the end user. The average onsystem industrial price for natural gas in 1994 was $3.05 per thousand cubic feet, yet this price applies to only 26 percent of all the natural gas delivered to industrial customers, leaving the average price of the other 74 percent unknown (Figure 4.6). EIA analysts think that because lower prices are often the motivating factor for an industrial customer to go offsystem, the average price for all industrial natural gas is likely to be lower than the onsystem price. The overall manufacturing price of natural gas in 1994 is lower, at $2.65 per thousand cubic feet. It is the average price for 6.5 trillion cubic feet of natural gas purchased by manufacturers, which is equivalent to 79 percent of industrial consumption.

Figure 4.6. Manufacturing Purchases and Industrial Deliveries of Natural Gas and Average Natural Gas Prices, 1994



Mcf = Thousand cubic feet.
Notes: The industrial sector includes consumers of natural gas that are not included among manufacturers. Onsystem industrial deliveries are those for which the natural gas supplier has price information because the supplier sold the gas to the consumer. Otherwise, the delivery was only transported by the supplier and is referred to as offsystem.
Sources: Energy Information Administration (EIA), **Manufacturing Sector:** 1994 Manufacturing Energy Consumption Survey. **Industrial Sector**: EIA *Natural Gas Monthly*, DOE/EIA-0130(97/07) (Washington, DC, July 1997), Tables 3 and 4.

Data collection and interpretation problems with respect to natural gas in the 1994 MECS all revolve around the attempt to quantify activities

in the natural gas market place that have arisen as a result of restructuring. The natural gas industry is more than a decade into this process, and with retail activities being the next restructuring target, manufacturers can expect to have even more options, and therefore more decision making, related to their natural gas purchases.

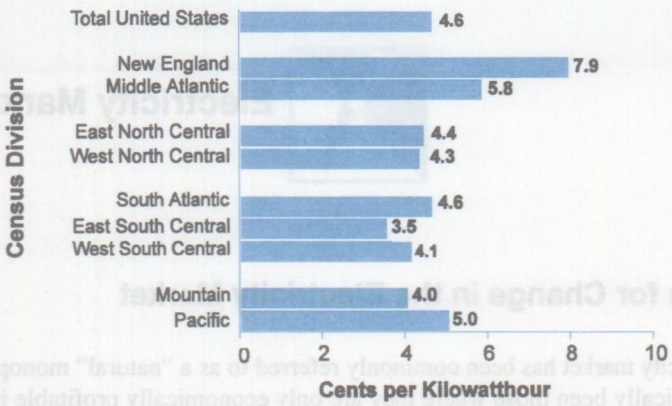
Electricity generation and transmission are entering a new phase of federally mandated restructuring. This report provides the most detailed information available from EIA on how manufacturers used electricity before implementation of the new structure. The next section reviews the highlights of these data.

Tables (Continued)

Change in the Electricity Market

In 1978, the Public Utility Regulations Policy Act of 1978 (PURPA), a Federal law, was passed. One section of PURPA required utilities to buy electricity from independent power suppliers who generated electricity using renewable energy or cogenerated the electricity. These new suppliers had to meet certain qualifying criteria set by the Federal Energy Regulatory Commission (FERC). PURPA and other legislation and regulatory policies started affecting the market structure earlier on. The Energy Policy Act of 1992 (EPACT) changed the market structure. No longer would the electricity market be looked upon as a natural monopoly. The Federal legislation promoted the competitive wholesale market for electricity and granted open access to the transmission lines similarly to what had earlier taken place in the natural gas and telecommunications markets. In Order 888, issued in April 1996, FERC carried out EPACT requirements by presenting the guidelines for access to transmission lines to promote competition in the wholesale market for electricity.

Figure 4.7. Average Price of Electricity by Census Division, 1994



Source: Energy Information Administration, 1994 Manufacturing Energy Consumption Survey.

In 1994, less than 3 percent of the purchased electricity used in the manufacturing sector came from a source other than the local utility. Now, retail competition is coming to the electricity market. Manufacturers and other customers will be able to choose their supplier of electricity.

As of July 7, 1997, Tennessee was the only State that had no activity on the path to electricity restructuring.[17] Restructuring bills have been passed in seven States (California, Maine, Montana, New Hampshire, Pennsylvania, Rhode Island, and Oklahoma). In 11 States, restructuring bills have been vetoed or have failed in State legislatures. Thirty-eight States have held public forums on the topic--most States have undertaken legislative study. Restructuring bills are still pending in the following States: Alabama, Arkansas, Delaware, Georgia, Hawaii, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Mississippi, New Mexico, New York, North Dakota, Ohio, Oregon, South Carolina, Utah, Vermont, and Virginia.

Electricity Usage in the Manufacturing Sector

How Much Electricity Did Manufacturers Use and Where Did They Get It? In 1994, manufacturers purchased 788 billion kilowatthours of electricity, either from their local utility (97 percent) or from a nonutility (i.e., independent power producer, small producer, or a cogenerator not at the establishment). Another 143 billion kilowatthours (90 percent of which was cogenerated) were generated on site. Only 2 percent of the generation was through the use of renewables. The transfer of electricity from central company offices to establishments added another 16 billion kilowatthours.

[17]National Regulatory Research Institute. Online (http://www.nrri.ohio-state.edu/restruct/summary.txt) (July 7, 1997).

Manufacturers generated or purchased more electricity than they could use, so they sold or transferred offsite 28 million kilowatthours. In sum, 918 billion kilowatthours of electricity was actually used in the manufacturing sector in 1994, almost the same amount used by all U.S. households in 1993.[18]

Another source of manufacturers' additional electricity is what is commonly called "negawatts"--kilowatthours saved through the use of energy management programs. In 1994, almost 45 thousand establishments participated in at least one energy management program.

How Much Did Electricity Cost?[19] Electricity expenditures, as other energy expenditures for the most part, are a small amount of the cost of producing a product. Energy costs, though, are very important to manufacturers. Although a company may incur only a small percentage of its total cost of production as costs of electricity, a particular establishment in that company may have electricity and other energy costs that are substantial, and the amount of expenditures may determine whether or not the establishment makes a profit.[20]

Therefore, manufacturers do indeed pay attention to the price of electricity. In 1994, manufacturers spent a total of $36 billion on electricity at an average price of 4.6 cents per kilowatthours. Unlike an individual household, a manufacturer may be the largest buyer of electricity from a local utility and may even be able to generate its own electricity. This position is one factor leading to lower electricity prices in the manufacturing sector than in the residential sector. In 1993, if all U.S. households had been able to purchase electricity at 1994 manufacturing prices, they would have paid $44.3 billion, instead of the $81.1 billion they actually paid.[21]

How Did Manufacturers Use Electricity? Most of the electricity used in the manufacturing sector is used in the process of manufacturing a product. Very little is used for heating the buildings, air conditioning, office equipment, or other nonprocess end uses. In fact, in 1994, 80 percent of all the electricity used in the sector--including onsite generation--was used in the process itself. Of all of the electricity used, 54 percent was used solely for machine drives (motors).

Similar statistics pertain to two of the three largest users of electricity--the paper and chemical industries. In 1994, the paper industry used 85 percent of its electricity in the manufacturing process (80 percent for motors). The percentage was even higher for the chemical industry. That industry used 90 percent of its electricity for process usage, but only 62 percent for motors. Some of the electricity is used for process heating and the electrochemical process. Although the third largest user of electricity, the primary metal industries, also used most of its electricity directly for the process (91 percent in 1994), only 29 percent of that amount was for motors. That industry also used 24 percent for process heating and 36 percent for the electrochemical process (Figure 4.8).

How Electricity Restructuring Might Affect Manufacturing

In summary, most electricity used by manufactures is purchased. The two exceptions are the paper and chemical industries, which produce a large portion of their electricity onsite. Additionally, most of the electricity is used directly for the manufacturing process, and mostly for motors. These characteristics need to be considered in any discussion of potential effects that electricity restructuring may have on the manufacturing sector. A few of the major areas that might be affected are: future prices, participation in energy management programs, and onsite generation.

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[18]Energy Information Administration, *Household Energy Consumption and Expenditures 1993*, DOE/EIA-0321(93) (Washington, DC, October 1995), Tables 5.2 and 5.4.

[19]In August 1997, the Energy Information Administration published the report *Electricity Prices in a Competitive Environment*, DOE/EIA-0614 (Washington, DC, August 1997). The report ". . . provides price projections as 'illustrations' of the potential effects of changes in certain parameters on the price of electricity that may emerge under competition," p. iii.

[20]Based on the author's conversations with various manufacturers and various manufacturing seminar discussions.

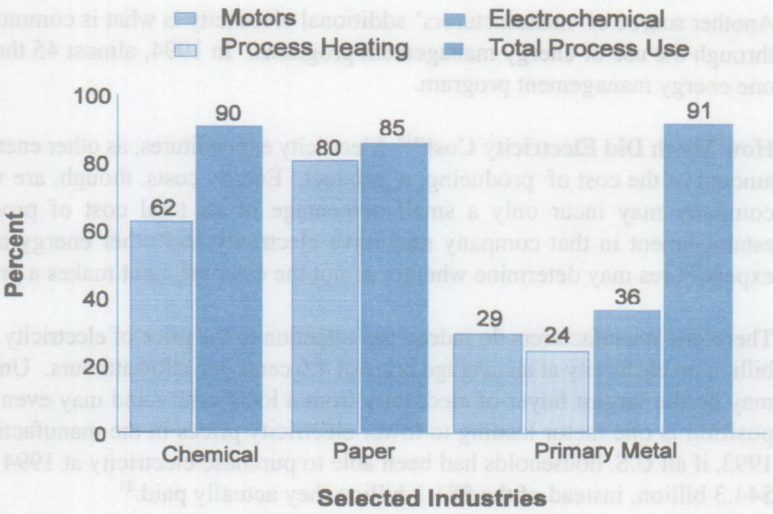
[21]Energy Information Administration, *Household Energy Consumption and Expenditures 1993*, DOE/EIA-0321(93) (Washington, DC, October 1995), Tables 5.2 and 5.4.

What Might Happen to Prices? At the present time, as discussed earlier, manufacturers face variable pricing depending on a number of factors such as location, amount, use, and even the manufacturing process itself. Most studies show that electricity restructuring should bring about more uniform pricing because manufacturers will be able to purchase electricity from many different sellers of electricity. In 1994, manufacturers purchased less than 3 percent of their electricity from a supplier other than a utility.

Whether the manufacturers will face lower prices will be limited by a number of factors. One of these factors may be flexibility--do they need a constant supply during peak times? Presently, the more flexible a manufacturer is in terms of time and ability to switch to another energy source, the better the prices they face in the electricity market.

Also, if a manufacturer is one of a utility's largest customers, this manufacturer is in a good position to demand lower electricity prices. This might not be the case under restructuring. The manufacturer's market power might not be as strong. The local utility will have the option to sell its electricity to whomever it wishes.

Figure 4.8. Electricity Demand for Three Industries by Each Industry's Major End Uses, 1994



Note: Percents are based on total electricity demand for the selected industries.

Source: Energy Information Administration, 1994 Manufacturing Energy Consumption Survey.

Will Energy Management Programs Be Important? Many large establishments use energy managers to monitor their energy usage. Some even have the technology to control loads, use electricity during off-peak times of day, and improve the technologies used in their processes, motors, lighting, etc. Many perform their own energy audits.

In 1994, 54 percent of the electricity used by manufacturing establishments was used to run motors. Fifteen percent of the establishments evaluated all expected costs, including electricity, over the lifetime of the system before deciding on new motor purchases or modifications to existing motors. The percentages climb to 27 percent, 27 percent, and 28 percent for the largest users of electricity, the paper, chemical, and primary metal industries, respectively.

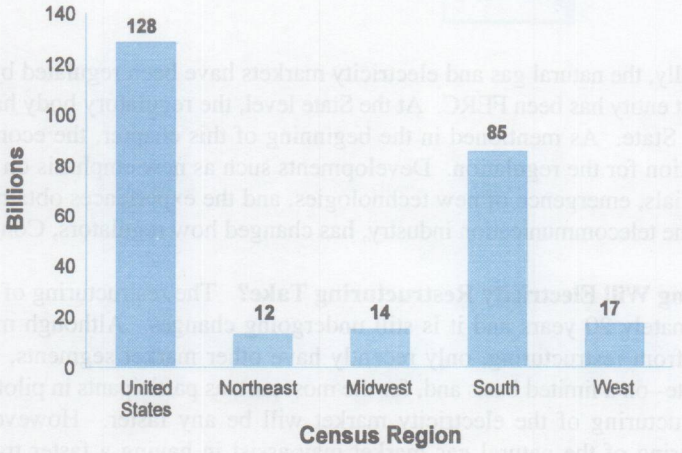
Under electricity industry restructuring, manufacturing energy management programs might diminish or might even grow. In industries such as the chemical industry that have cogeneration technologies similar to those used by independent power producers, the market may be such that electricity savings may be important--excess electricity could be sold in the market.

Electric utilities work with both large and small establishments by offering such programs as audits, equipment rebates, assistance with special rate schedules, and load controls. In 1994, over 29 thousand establishments participated in at least one electric utility energy management program. Under restructuring, this will change--energy management may become, in a competitive market, a commodity. Programs may be sold by the utilities as they are today by the energy service companies or they may become a product of good will to maintain customer relationships.

What Will Happen to Onsite Electricity Generation? In 1994, manufacturers generated on site 142.5 billion kilowatthours of electricity, 90 percent of which was cogenerated. Cogeneration was found mainly in those industries that have large steam requirements for process heating. It is economically more efficient to use the energy twice, mainly

as a source of both thermal heat and electricity. Additionally, many of the establishments that use cogeneration technologies have a large supply of byproducts such as bark, wood chips, black liquor, or different forms of gas. Those establishments usually use the most common technology, boiler/steam turbines, because multiple kinds of energy inputs can be used with that technology. Most cogeneration takes place in establishments located in the South Census Region (Figure 4.9).

Figure 4.9. Cogeneration of Electricity by Census Region, 199 (billion kilowatthours)



Source: Energy Information Administration, 1994 Manufacturing Energy Consumption Survey.

In 1994, as in other years, the paper industry had large amounts of usable byproducts, such as wood chips and black liquor. Approximately 40 percent of all cogenerated electricity took place in the paper industry, where 61 percent of the electricity was cogenerated using boiler/steam turbines. In 1994, most of the paper industry's cogeneration took place in the South (62 percent).

The chemical industry was the next largest cogenerator (35 percent). That industry also is located primarily in the South, where, in 1994, 90 percent of the industry's cogeneration took place. The MECS data show that the industry used at least two different cogeneration technologies.[22] Because the chemical industry is the largest user of natural gas as feedstock and for process heating, it would be reasonable to assume that some of the 1994 cogenerated electricity came from the use of combined-cycle turbine systems, which can burn both natural gas and byproduct gases. Additionally, in 1994, the chemical industry was the second largest seller of electricity (7.7 billion kilowatthours). It may be reasonable to assume that some of the electricity was cogenerated using the conventional combustion turbine that also burns natural gas. The conventional combustion system is the one used more frequently when there is excess capacity and electricity is sold.

How cogenerating industries will change under electricity restructuring is unknown at this time. Some industries might face lower market prices for electricity, which would dampen the incentives for cogeneration. Other industries, especially smaller establishments lacking large electricity loads and facing relatively high prices, might have increased incentives to cogenerate. There are some industries that need a reliable supply of electricity. Risk aversion might cause those industries to use the best technology and to generate their own electricity, possibly through cogeneration. Industries such as the chemical industry have the technology, and thus the ability, to cogenerate excess electricity to sell if the price is right.

[22]This paragraph includes cogeneration technology information from the Gas Research Institute, *Current Status and Projected Trends in Industrial Cogeneration* (GRI-93/0467) (Washington, DC, December 1993), pp. 2.1 - 2.12. The cogeneration technology data used are from Table A13 in this report.

Lessons From Natural Gas Restructuring

Historically, the natural gas and electricity markets have been regulated by some of the same entities.[23] At the Federal level, that entity has been FERC. At the State level, the regulatory body has usually been the public utility commission for each State. As mentioned in the beginning of this chapter, the economic theory of "natural monopoly" was the justification for the regulation. Developments such as new emphasis on the economic benefits of competition, price differentials, emergence of new technologies, and the experiences obtained from the deregulation of other industries, such as the telecommunication industry, has changed how regulators, Congress, and customers look at energy markets.

How Long Will Electricity Restructuring Take? The restructuring of the natural gas market has been going on for approximately 20 years and it is still undergoing changes. Although manufacturers have long been able to benefit directly from restructuring, only recently have other market segments, such as residential customers, been able to participate--on a limited basis and, for the most part, as participants in pilot projects. There is no reason to believe that the restructuring of the electricity market will be any faster. However, lessons that have been learned from the restructuring of the natural gas market may assist in having a faster transition to a competitive environment and a smoother one. As in the natural gas market, the first participants to benefit from restructuring most likely will be manufacturing establishments. As was noted earlier, manufacturers who use large amounts of electricity already can and do receive rate concessions from their local utility. Reasons include the potential competition of onsite-generated electricity and other factors such as desirable load characteristics not present in other sectors.

Will the Structure of Electricity Markets Remain the Same? Historically, the natural gas market had a structure where gas owners, transporters, and distributors (the local utility) were different entities. Local utilities purchased the gas at the city gate and then distributed the gas to their customers. Under restructuring, however, gas utilities, manufacturers, and others may purchase the gas at the wellhead.

In contrast, electric utilities had, for the most part, generated their own electricity, transported it, and distributed it to customers, including manufacturing establishments. The utility or its affliate owned all three stages--electricity production, transportation, and delivery to the ultimate customer.[24] Under restructuring, each of the three stages is accomplished by independently owned units. Unlike natural gas, for which production points are geologically fixed, electricity can be generated wherever facilities are put in place. Thus, in the emerging competitive market, manufacturing establishments--especially chemical or paper establishments, as noted earlier--could become generators of electricity for the sole purpose of sales, including sales to customers other than electric utilities.

Will the Electricity Market Have New Entrants--Brokers and Marketers? Manufacturing establishments may now go to the wellhead to buy gas or hire gas brokers to buy it for them. Many of the gas marketers or brokers are entering the electricity market. New entities are being created specifically to market electricity. The new entities can also arrange for the purchase and delivery of large quantities of gas for sale to each of the many small establishments located in the same region. This strategy of combining small establishments to create market power could take place for electricity as well. This strategy can, and likely will, be used in market segments other than manufacturing.

Are There Energy-Plus Companies on the Horizon? In the past, manufacturers in many of the regions of the country have been able to purchase both gas and electricity from the same utility. In the future, manufacturers may be buying

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[23]For a discussion of the similarities of and differences between the natural gas and electricity markets, see Energy Information Administration, *Natural Gas Monthly*, "Restructuring Energy Markets: Lessons from Natural Gas," DOE/EIA-013(97/05) (Washington, DC, May 1997).

[24]There are some exceptions, most notably are cooperatives or municipal utilities that purchase most, some, or all of the electricity they sell. Also, some utilities purchase electricity from entities such as independent power producers.

their natural gas, electricity, energy-management, cable, internet, and telecommunications services from the same company.[25]

How Will Restructuring Affect Data Collections? In many States such as California, utilities have been required to collect data that different States' public utility commissions used to support some of their regulatory decisions. In a more competitive environment, these types of data might not be readily available. Additionally, survey respondents may find it difficult to report information on the supplies and prices for natural gas and electricity. The arrangements have become very complex and the individuals responding to the surveys may not have been involved in the actual purchases.

The misclassification of utility and nonutility natural gas quantities and the consequent effect on the natural gas prices in the 1994 MECS may be just the beginning in the difficulties data collectors such as EIA will face because of restructured energy markets. As noted in this chapter, respondents to EIA's supplier survey are able to report quantities but have not been able to report prices for offsystem gas. This difficulty will only be compounded when consumer choice for electricity becomes more than a pilot test. It is very important that EIA thoroughly examine the results of the 1994 MECS before the 1998 MECS is fielded, at which time some manufacturers may be purchasing electricity from several electricity providers.

Electric power analysts and data collectors at EIA have been engaging in extensive redesign efforts for many of the electric power data collections. Changing roles of electric utilities, direct consumer purchases from nonutility generators, uncertainty in transmission maintenance and responsibility, and greater uncertainty in electricity prices affect data collection. Some institutions will no longer exist, while new ones will arise. Data traditionally found at electric utilities might be dispersed to many different types of entities. Data once thought to be discloseable due to the regulated nature of electric utilities might now be thought of as proprietary by the data providers. EIA has been in contact with industry representatives, consumer groups, media, government officials, and other potential EIA data customers to better understand the implications that the restructuring of energy markets may have on data collections.

[25]Electricity and natural gas markets are merging their resources with nontraditional entities. UtiliCorp United Inc. and Peco Energy Company recently formed a partnership with AT&T and ADT Security Services. The Oil Daily Company, *Natural Gas Week*, July 14, 1997, p. 1.

Important Changes
Affecting the Detailed Tables

1. In previous MECS, the term "primary energy" was used to denote the "first use" of energy. However, many of our customers use the term primary energy to mean a quantity of energy that includes the energy losses incurred in generating and transmitting electricity. So, in response:

"Primary Energy for All Purposes" is now "First Use of Energy for All Purposes."

2. "Shell storage capacity" no longer appears in this report. The capacity data are available electronically at http://www.eia.doe.gov/emeu/mecs/contents.html.

3. Manufacturers often produce more energy as a byproduct or from the use of a nonenergy source than they use. They sell or transfer the excess. In past MECS, those shipments from the establishments were counted in all of the MECS estimates. In the 1994 MECS, the "shipment" estimates are removed from the "total" column Table A1. The estimates for the "shipments" are in the last column of the same table. The estimates for the energy sources remain the same as in previous MECS. Therefore:

When comparing total energy (Table A1) in this report with total energy (Table A1) in the 1991 MECS report, shipments in the 1994 table must be added to total energy for 1994. It is also possible to add shipments to the 1991 total estimate. See Appendix B in *Manufacturing Consumption of Energy 1991* for a complete discussion and shipment estimates for 1991.

4. The previous report, *Manufacturing Consumption of Energy 1991* includes estimates on quantities, expenditures, and average prices for natural gas by type of supplier (utility, transmission pipeline, and other supplier). The categorization of natural gas supplier was changed in the 1994 MECS. In theory, the 1994 MECS categorization should have also provided a clean breakdown of natural gas from utility and nonutility sources that would sum to total gas inputs. However, after a preliminary investigation, EIA finds evidence that a misclassification might have taken place. Natural gas that might have been purchased through a source other than the local utility might have been classified as utility natural gas. Chapter 4 describes this situation in detail. Under these circumstances:

EIA has withheld all data, including data on quantities, expenditures, and average prices, that show a differentiation between utility and nonutility suppliers of natural gas. In addition, EIA is presently developing plans to investigate further whether a misclassification occurred and, if so, why it occurred.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Census Region and Industry Group, 1994: Part 1

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total[b] (trillion Btu)	Net Electricity[c] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[d] (1000 bbl)	Natural Gas[e] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[f] (trillion Btu)	Shipments[g] (trillion Btu)	RSE Row Factors
		Total United States										
	RSE Column Factors:	0.5	0.4	1.2	1.2	0.5	1.1	1.4	1.9	1.1	2.3	
20	Food and Kindred Products	1,193	58,004	4,785	3,181	613	W	7,500	W	141	0	5.9
21	Tobacco Products	W	842	133	W	W	W	W	0	W	0	27.2
22	Textile Mill Products	310	32,614	2,680	1,274	113	999	1,821	0	14	0	13.9
23	Apparel and Other Textile Products	W	7,735	W	106	25	W	W	0	W	0	22.9
24	Lumber and Wood Products	491	19,836	389	4,314	47	W	W	0	341	0	9.9
25	Furniture and Fixtures	69	6,590	60	154	23	211	115	0	18	0	14.3
26	Paper and Allied Products	2,665	65,479	27,444	1,564	558	1,334	13,812	0	1,373	0	3.8
27	Printing and Publishing	112	17,409	W	264	46	W	0	0	2	0	11.5
28	Chemicals and Allied Products	5,328	152,482	17,457	2,324	2,495	435,926	13,239	449	442	166	6.4
29	Petroleum and Coal Products[h]	6,339	35,440	11,234	3,821	788	11,729	W	W	5,344	87	7.9
30	Rubber and Misc. Plastics Products	287	43,749	1,600	620	107	920	221	0	6	0	8.2
31	Leather and Leather Products	W	828	250	W	W	W	0	0	*	0	23.8
32	Stone, Clay and Glass Products	944	36,018	1,187	3,970	419	1,062	12,423	320	73	0	7.9
33	Primary Metal Industries	2,462	144,466	6,871	2,190	787	1,488	34,888	17,238	85	334	6.3
34	Fabricated Metal Products	367	33,819	W	749	214	1,341	W	W	Q	0	14.1
35	Industrial Machinery and Equipment	246	32,037	W	698	108	907	484	W	5	0	10.0
36	Electronic and Other Electric Equipment	243	33,148	415	296	85	629	W	W	Q	0	13.3
37	Transportation Equipment	363	38,773	1,781	1,159	153	934	1,245	69	23	0	10.9
38	Instruments and Related Products	107	13,490	589	237	28	W	W	0	3	0	18.8
39	Misc. Manufacturing Industries	W	5,575	142	209	19	166	37	0	W	0	23.3
	Total	21,663	778,335	78,010	27,196	6,635	461,028	88,349	18,252	7,926	587	3.7
		Northeast Census Region										
	RSE Column Factors:	0.5	0.4	0.9	1.0	0.6	1.2	1.7	2.0	1.1	1.8	
20	Food and Kindred Products	93	6,215	1,496	W	50	W	W	0	4	0	14.6
21	Tobacco Products	W	20	W	W	W	W	0	0	W	0	39.8
22	Textile Mill Products	32	1,666	1,055	W	13	234	W	0	3	0	17.2
23	Apparel and Other Textile Products	W	2,035	W	W	5	W	0	0	W	0	46.3
24	Lumber and Wood Products	W	1,198	W	W	3	W	0	0	W	0	25.8
25	Furniture and Fixtures	6	421	Q	77	2	20	0	0	1	0	26.9
26	Paper and Allied Products	W	9,397	11,849	416	46	W	1,965	0	W	0	8.1
27	Printing and Publishing	21	3,156	W	141	8	W	0	0	W	0	19.0
28	Chemicals and Allied Products	163	11,230	3,381	W	57	W	W	0	18	W	10.2
29	Petroleum and Coal Products[h]	502	2,990	2,079	1,333	39	W	W	0	422	0	12.0
30	Rubber and Misc. Plastics Products	W	6,474	W	W	13	W	64	0	1	0	15.7
31	Leather and Leather Products	W	243	155	W	W	17	0	0	W	0	30.1
32	Stone, Clay and Glass Products	128	5,271	W	W	65	221	1,500	W	2	0	14.1
33	Primary Metal Industries	344	17,781	W	W	103	W	W	W	14	W	14.2
34	Fabricated Metal Products	W	5,072	309	409	31	W	W	W	W	0	17.5
35	Industrial Machinery and Equipment	37	4,525	190	253	15	176	0	0	2	0	15.6
36	Electronic and Other Electric Equipment	70	7,358	W	164	21	232	W	W	W	0	24.2
37	Transportation Equipment	41	3,524	992	280	13	W	W	0	2	0	17.3
38	Instruments and Related Products	52	3,757	554	202	9	W	W	0	1	0	21.3
39	Misc. Manufacturing Industries	21	1,673	115	104	6	52	W	0	W	0	27.1
	Total	1,964	94,006	24,229	7,179	503	9,158	18,040	366	622	191	6.1

See footnotes at end of table.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total[b] (trillion Btu)	Net Electricity[c] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[d] (1000 bbl)	Natural Gas[e] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[f] (trillion Btu)	Shipments[g] (trillion Btu)	RSE Row Factors
		Midwest Census Region										
	RSE Column Factors:	0.5	0.5	1.6	1.2	0.5	1.2	1.1	1.4	1.2	1.9	
20	Food and Kindred Products	492	23,442	1,176	372	258	W	5,491	W	14	0	9.6
21	Tobacco Products	W	W	0	W	W	0	0	0	W	0	54.3
22	Textile Mill Products	6	W	0	W	4	W	0	0	W	0	30.3
23	Apparel and Other Textile Products	7	785	0	W	4	W	0	0	W	0	32.7
24	Lumber and Wood Products	W	2,975	W	W	12	270	W	0	W	0	20.8
25	Furniture and Fixtures	27	2,151	4	10	12	65	57	0	Q	0	22.7
26	Paper and Allied Products	W	15,397	810	164	113	W	W	0	W	0	7.1
27	Printing and Publishing	42	5,975	*	W	19	W	0	0	1	0	15.5
28	Chemicals and Allied Products	573	40,332	675	189	270	15,039	W	W	50	9	11.3
29	Petroleum and Coal Products[h]	1,054	7,528	3,739	W	85	1,279	W	0	910	Q	9.9
30	Rubber and Misc. Plastics Products	112	16,256	W	W	48	240	W	0	2	0	14.0
31	Leather and Leather Products	W	W	W	W	W	W	0	0	W	0	33.2
32	Stone, Clay and Glass Products	261	9,722	W	W	114	W	3,050	W	34	0	15.7
33	Primary Metal Industries	1,271	50,730	4,833	665	413	W	13,437	W	41	56	9.2
34	Fabricated Metal Products	198	17,128	W	103	126	658	213	W	W	0	19.5
35	Industrial Machinery and Equipment	130	14,850	176	319	60	398	484	0	2	0	14.6
36	Electronic and Other Electric Equipment	63	8,569	W	W	30	W	W	0	2	0	18.1
37	Transportation Equipment	182	17,542	W	452	84	379	959	W	8	0	17.3
38	Instruments and Related Products	19	2,476	W	4	W	W	0	0	Q	0	23.2
39	Misc. Manufacturing Industries	10	966	0	W	6	W	W	0	W	0	37.9
	Total	4,873	237,676	12,403	4,228	1,670	19,951	30,388	12,396	1,204	66	6.1
		South Census Region										
	RSE Column Factors:	0.5	0.4	1.4	1.3	0.5	1.1	1.3	2.2	1.0	1.8	
20	Food and Kindred Products	362	19,282	1,495	W	158	W	W	W	100	0	9.6
21	Tobacco Products	19	W	W	W	3	W	W	0	W	0	27.3
22	Textile Mill Products	267	30,046	1,625	963	93	W	W	0	11	0	16.7
23	Apparel and Other Textile Products	31	4,262	W	W	13	W	W	0	W	0	23.1
24	Lumber and Wood Products	242	9,387	W	2,062	17	W	W	0	178	0	13.5
25	Furniture and Fixtures	32	3,354	49	66	8	107	58	0	11	0	15.1
26	Paper and Allied Products	1,632	28,425	12,971	892	286	464	7,443	0	988	0	5.3
27	Printing and Publishing	36	6,096	W	W	13	103	0	0	1	0	19.9
28	Chemicals and Allied Products	4,372	87,941	W	W	2,045	416,309	9,252	154	357	157	7.2
29	Petroleum and Coal Products[h]	3,705	17,958	2,910	W	537	W	W	W	3,123	Q	10.6
30	Rubber and Misc. Plastics Products	113	17,270	835	353	40	358	73	0	2	0	9.9
31	Leather and Leather Products	1	W	W	W	*	W	0	0	W	0	43.7
32	Stone, Clay and Glass Products	382	14,618	W	1,167	178	W	4,958	W	26	0	11.7
33	Primary Metal Industries	620	47,575	1,050	660	201	411	7,491	4,438	14	82	9.9
34	Fabricated Metal Products	73	8,293	W	195	40	297	W	0	W	0	16.4
35	Industrial Machinery and Equipment	58	8,813	W	97	25	281	0	W	1	0	15.2
36	Electronic and Other Electric Equipment	80	11,194	54	98	26	206	67	25	11	0	18.0
37	Transportation Equipment	90	11,221	W	277	35	379	W	W	7	0	16.9
38	Instruments and Related Products	20	4,049	W	W	5	12	0	0	1	0	29.4
39	Misc. Manufacturing Industries	14	1,959	27	W	5	W	0	0	W	0	32.1
	Total	12,150	332,754	35,521	10,069	3,726	422,755	32,656	4,785	4,833	301	5.0

See footnotes at end of table.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total[b] (trillion Btu)	Net Electricity[c] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[d] (1000 bbl)	Natural Gas[e] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[f] (trillion Btu)	Shipments[g] (trillion Btu)	RSE Row Factors
		West Census Region										
	RSE Column Factors:	0.5	0.4	1.3	1.2	0.6	1.1	1.3	1.3	0.9	3.2	
20	Food and Kindred Products	245	9,065	618	1,195	148	W	1,146	W	24	0	9.9
21	Tobacco Products	0	0	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	5	W	0	0	3	W	0	0	W	0	33.7
23	Apparel and Other Textile Products	W	654	0	0	2	W	0	0	*	0	38.2
24	Lumber and Wood Products	156	6,276	W	1,612	14	W	0	0	109	0	15.8
25	Furniture and Fixtures	4	664	0	*	2	20	0	0	*	0	31.4
26	Paper and Allied Products	366	12,260	1,814	92	113	W	W	0	184	0	9.0
27	Printing and Publishing	14	2,182	0	W	5	W	0	0	W	0	22.5
28	Chemicals and Allied Products	221	12,979	W	W	123	W	1,148	W	17	W	18.8
29	Petroleum and Coal Products[h]	1,077	6,963	2,506	1,122	127	W	W	0	888	24	10.2
30	Rubber and Misc. Plastics Products	W	3,749	W	W	6	W	W	0	*	0	23.6
31	Leather and Leather Products	W	W	0	0	W	Q	0	0	W	0	74.3
32	Stone, Clay and Glass Products	173	6,407	W	929	63	191	2,915	W	11	0	15.5
33	Primary Metal Industries	227	28,379	W	W	71	W	W	W	16	W	8.7
34	Fabricated Metal Products	W	3,326	0	41	17	W	0	W	W	0	23.2
35	Industrial Machinery and Equipment	21	3,849	0	30	7	53	0	0	*	0	22.1
36	Electronic and Other Electric Equipment	30	6,027	0	W	8	W	0	0	W	0	20.4
37	Transportation Equipment	51	6,487	W	150	21	W	0	0	6	0	22.5
38	Instruments and Related Products	17	3,208	0	W	W	W	0	0	*	0	19.2
39	Misc. Manufacturing Industries	W	978	0	W	2	W	0	0	*	0	44.0
	Total	2,676	113,899	5,856	5,719	737	9,163	7,265	705	1,266	29	6.0

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Total" is the sum of all of the listed energy sources, including "Other," minus the shipments of energy sources produced onsite. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.

[c] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[d] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[e] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[f] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs. See also Footnote "h".

[g] "Shipments" are shipments of energy sources produced onsite, which are those shipments produced or transformed onsite from the nonfuel use of other energy sources. For example, at an establishment that processes coal to make coke for later use, the entire quantity of coal is counted as first use. Any onsite consumption of coke is not counted as first use because it would duplicate the coal use. If some of the coke is then sold to another establishment, then that second establishment will consider this coke to be a shipment of an offsite-produced energy source. Hence, the second establishment will count this coke as its first use, thereby resulting in double counting. In order to eliminate the double counting, the energy equivalent of the coke shipment must be subtracted from first use.

[h] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. The remaining columns for the petroleum refining industry include only energy that was consumed for the production of heat and power. The "Other" column also includes net steam and other energy that respondents indicated was used in the production of heat and power. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy for heat and power and as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total[b] (trillion Btu)	Net Electricity[c] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[d] (1000 bbl)	Natural Gas[e] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[f] (trillion Btu)	Shipments[g] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.5	0.5	1.2	1.1	0.6	1.1	1.2	1.5	1.1	1.8	
20	Food and Kindred Products	1,193	58,004	4,785	3,181	613	W	7,500	W	141	0	5.7
2011	*Meat Packing Plants*	53	3,924	138	101	35	W	W	0	2	0	16.0
2033	*Canned Fruits and Vegetables*	51	1,432	241	119	42	W	W	0	*	0	15.7
2037	*Frozen Fruits and Vegetables*	42	2,901	204	62	27	76	0	0	2	0	18.0
2046	*Wet Corn Milling*	173	5,662	169	10	67	9	3,556	6	5	0	20.4
2051	*Bread, Cake, and Related Products*	37	2,436	Q	131	26	89	0	0	*	0	21.8
2061	*Cane Sugar, Except Refining*	111	W	W	220	2	W	W	0	105	0	19.1
2062	*Cane Sugar Refining*	23	125	313	97	16	4	0	0	4	0	29.6
2063	*Beet Sugar*	64	425	270	W	18	W	1,790	W	*	0	3.5
2075	*Soybean Oil Mills*	57	1,845	147	W	30	W	682	0	3	0	1.4
2082	*Malt Beverages*	51	2,311	W	21	21	W	789	0	*	0	8.1
21	Tobacco Products	W	842	133	W	W	W	W	0	W	0	25.5
22	Textile Mill Products	310	32,614	2,680	1,274	113	999	1,821	0	14	0	13.1
23	Apparel and Other Textile Products	W	7,735	W	106	25	W	W	0	W	0	20.9
24	Lumber and Wood Products	491	19,836	389	4,314	47	W	W	0	341	0	9.3
2421	*Sawmills and Planing Mills, General*	201	6,556	W	1,206	11	W	0	0	160	0	14.3
2436	*Softwood Veneer and Plywood*	74	2,517	Q	251	3	168	0	0	61	0	15.3
2493	*Reconstituted Wood Products*	98	4,453	198	128	17	W	W	0	60	0	14.2
25	Furniture and Fixtures	69	6,590	60	154	23	211	115	0	18	0	13.4
2511	*Wood Furniture, Except Upholstered*	24	2,146	47	62	2	59	56	0	13	0	15.6
26	Paper and Allied Products	2,665	65,479	27,444	1,564	558	1,334	13,812	0	1,373	0	3.6
2611	*Pulp Mills*	W	2,190	3,583	178	21	W	328	0	W	0	13.5
2621	*Paper Mills*	1,297	34,419	14,942	746	264	476	8,783	0	612	0	5.5
2631	*Paperboard Mills*	954	13,512	7,914	314	194	119	4,552	0	556	0	2.9
27	Printing and Publishing	112	17,409	W	264	46	W	0	0	2	0	10.6
28	Chemicals and Allied Products	5,328	152,482	17,457	2,324	2,495	435,926	13,239	449	442	166	6.4
2812	*Alkalies and Chlorine*	135	13,424	W	53	52	W	W	0	16	0	9.1
2813	*Industrial Gases*	104	23,525	0	W	23	W	15	29	1	W	25.9
2816	*Inorganic Pigments*	51	2,393	159	W	21	W	W	W	11	0	10.1
2819	*Industrial Inorganic Chemicals, nec.*	377	42,239	W	264	145	W	W	352	28	*	14.6
2821	*Plastics Materials and Resins*	642	16,408	542	153	234	89,084	875	0	26	21	9.1
2822	*Synthetic Rubber*	102	2,276	W	W	53	6,899	190	0	9	0	26.2
2823	*Cellulosic Manmade Fibers*	28	419	0	23	W	W	W	0	W	0	1.2
2824	*Organic Fibers, Noncellulosic*	116	7,093	1,435	88	39	W	W	0	W	W	8.3
2861	*Gum and Wood Chemicals*	28	211	*	W	4	W	164	W	19	0	7.4
2865	*Cyclic Crudes and Intermediates*	206	4,789	W	204	98	W	152	0	35	0	19.5
2869	*Industrial Organic Chemicals, nec.*	2,369	18,786	795	319	1,037	282,371	W	W	250	142	9.8
2873	*Nitrogenous Fertilizers*	622	3,817	0	30	589	4	0	0	2	0	14.0
2874	*Phosphatic Fertilizers*	46	1,131	W	W	13	3	W	0	25	0	6.4
2895	*Carbon Black*	80	W	9,344	W	19	W	0	0	*	0	13.3
29	Petroleum and Coal Products	6,339	35,440	11,234	3,821	788	11,729	W	W	5,344	87	7.9
2911	*Petroleum Refining*[h]	6,263	33,335	10,891	1,159	734	W	W	0	5,271	0	5.5
30	Rubber and Misc. Plastics Products	287	43,749	1,600	620	107	920	221	0	6	0	7.7
3011	*Tires and Inner Tubes*	49	4,664	720	115	22	95	81	0	2	0	9.9
308	*Miscellaneous Plastics Products, nec.*	192	33,961	497	267	62	725	82	0	3	0	11.6
31	Leather and Leather Products	W	828	250	W	W	W	0	0	*	0	21.9
32	Stone, Clay and Glass Products	944	36,018	1,187	3,970	419	1,062	12,423	320	73	0	7.7
3211	*Flat Glass*	52	1,468	244	11	44	20	0	0	1	0	20.3
3221	*Glass Containers*	83	4,268	336	75	64	98	0	0	*	0	8.3
3229	*Pressed and Blown Glass, nec.*	63	3,233	W	57	49	W	0	0	*	0	11.1
3241	*Cement, Hydraulic*	327	10,784	158	856	24	9	9,174	150	53	0	12.6
3274	*Lime*	96	1,151	105	251	12	5	2,980	82	9	0	20.8
3296	*Mineral Wool*	51	3,401	W	16	36	W	0	86	*	0	15.0
33	Primary Metal Industries	2,462	144,466	6,871	2,190	787	1,488	34,888	17,238	85	334	6.3
331	*Blast Furnace and Basic Steel Prod.*	1,747	53,269	6,680	W	511	W	34,211	15,673	33	334	9.2
3312	*Blast Furnaces and Steel Mills*	1,649	43,520	6,659	W	469	W	33,609	15,628	26	334	7.7
3313	*Electrometallurgical Products*	38	4,796	0	21	2	5	588	Q	5	0	40.7
3321	*Gray and Ductile Iron Foundries*	94	8,820	Q	113	32	141	35	1,166	1	*	13.0
3331	*Primary Copper*	32	1,581	W	W	21	W	W	0	W	0	1.1
3334	*Primary Aluminum*	241	53,552	W	125	16	W	W	W	40	0	1.4
3339	*Primary Nonferrous Metals, nec.*	45	4,151	W	W	12	17	435	W	2	0	15.0
3353	*Aluminum Sheet, Plate, and Foil*	73	4,835	0	W	51	54	W	0	3	0	6.9

See footnotes at end of table.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Industry Group and Selected Industries, 1994: Part 2 (Continued)
(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total[b] (trillion Btu)	Net Electricity[c] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[d] (1000 bbl)	Natural Gas[e] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[f] (trillion Btu)	Shipments[g] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.5	0.5	1.2	1.1	0.6	1.1	1.2	1.5	1.1	1.8	
34	Fabricated Metal Products	367	33,819	W	749	214	1,341	W	W	Q	0	13.7
35	Industrial Machinery and Equipment	246	32,037	W	698	108	907	484	W	5	0	9.4
357	*Computer and Office Equipment*	20	4,179	W	23	5	W	0	0	*	0	28.6
36	Electronic and Other Electric Equip.	243	33,148	415	296	85	629	W	W	Q	0	13.0
37	Transportation Equipment	363	38,773	1,781	1,159	153	934	1,245	69	23	0	10.7
3711	*Motor Vehicles and Car Bodies*	107	8,845	300	86	52	92	571	0	8	0	22.0
3714	*Motor Vehicle Parts and Accessories*	119	13,417	W	146	54	384	444	W	3	0	18.1
38	Instruments and Related Products	107	13,490	589	237	28	W	W	0	3	0	17.7
3841	*Surgical and Medical Instruments*	7	1,347	16	13	2	30	0	0	*	0	24.0
39	Misc. Manufacturing Industries	W	5,575	142	209	19	166	37	0	W	0	21.8
	Total	21,663	778,335	78,010	27,196	6,635	461,028	88,349	18,252	7,926	587	3.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Total" is the sum of all of the listed energy sources, including "Other," minus the shipments of energy sources produced onsite. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.
[c] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).
[d] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[e] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[f] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs. See also Footnote "h".
[g] "Shipments" are shipments of energy sources produced onsite, which are those shipments produced or transformed onsite from the nonfuel use of other energy sources. For example, at an establishment that processes coal to make coke for later use, the entire quantity of coal is counted as first use. Any onsite consumption of coke is not counted as first use because it would duplicate the coal use. If some of the coke is then sold to another establishment, then that second establishment will consider this coke to be a shipment of an offsite-produced energy source. Hence, the second establishment will count this coke as its first use, thereby resulting in double counting. In order to eliminate the double counting, the energy equivalent of the coke shipment must be subtracted from first use.
[h] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. The remaining columns for the petroleum refining industry include only energy that was consumed for the production of heat and power. The "Other" column also includes net steam and other energy that respondents indicated was used in the production of heat and power. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy for heat and power and as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Census Region and Industry Group, 1994: Part 3

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	Shipments[g]	RSE Row Factors
		Total United States										
	RSE Column Factors:	0.5	0.4	1.2	1.2	0.5	1.1	1.4	1.9	1.1	2.3	
20	Food and Kindred Products	1,193	198	30	19	631	W	165	W	141	0	5.9
21	Tobacco Products	W	3	1	W	W	W	W	0	W	0	27.2
22	Textile Mill Products	310	111	17	7	117	4	40	0	14	0	13.8
23	Apparel and Other Textile Products	W	26	W	1	25	W	W	0	W	0	22.8
24	Lumber and Wood Products	491	68	2	25	48	W	W	0	341	0	9.9
25	Furniture and Fixtures	69	22	*	1	24	1	3	0	18	0	14.3
26	Paper and Allied Products	2,665	223	173	9	575	5	307	0	1,373	0	3.8
27	Printing and Publishing	112	59	W	2	48	W	0	0	2	0	11.5
28	Chemicals and Allied Products	5,328	520	110	14	2,569	1,535	293	11	442	166	6.4
29	Petroleum and Coal Products[h]	6,339	121	71	22	811	47	W	W	5,344	87	8.1
30	Rubber and Misc. Plastics Products	287	149	10	4	110	3	5	0	6	0	8.2
31	Leather and Leather Products	W	3	2	W	W	W	0	0	*	0	23.7
32	Stone, Clay and Glass Products	944	123	7	23	432	4	274	8	73	0	7.9
33	Primary Metal Industries	2,462	493	43	13	811	5	922	424	85	334	6.3
34	Fabricated Metal Products	367	115	W	4	220	5	W	W	Q	0	14.1
35	Industrial Machinery and Equipment	246	109	W	4	111	3	11	W	5	0	10.0
36	Electronic and Other Electric Equipment	243	113	3	2	88	2	W	W	Q	0	13.4
37	Transportation Equipment	363	132	11	7	157	3	28	2	23	0	10.9
38	Instruments and Related Products	107	46	4	1	29	W	W	0	3	0	18.8
39	Misc. Manufacturing Industries	W	19	1	1	19	1	1	0	W	0	23.3
	Total	21,663	2,656	490	158	6,835	1,631	2,105	449	7,926	587	3.7
		Northeast Census Region										
	RSE Column Factors:	0.5	0.4	0.9	1.0	0.6	1.2	1.7	2.0	1.1	1.8	
20	Food and Kindred Products	93	21	9	W	51	W	W	0	4	0	14.6
21	Tobacco Products	W	*	W	W	W	W	0	0	W	0	39.7
22	Textile Mill Products	32	6	7	W	14	1	W	0	3	0	17.2
23	Apparel and Other Textile Products	W	7	W	W	6	W	0	0	W	0	46.2
24	Lumber and Wood Products	W	4	W	W	3	W	0	0	W	0	25.8
25	Furniture and Fixtures	6	1	*	*	2	*	0	0	1	0	26.9
26	Paper and Allied Products	W	32	74	2	48	W	45	0	W	0	8.0
27	Printing and Publishing	21	11	W	1	9	W	0	0	W	0	19.0
28	Chemicals and Allied Products	163	38	21	W	59	W	W	0	18	W	10.1
29	Petroleum and Coal Products[h]	502	10	13	8	40	W	W	0	422	0	11.9
30	Rubber and Misc. Plastics Products	W	22	W	W	14	W	1	0	1	0	15.7
31	Leather and Leather Products	W	1	1	W	W	*	0	0	W	0	30.0
32	Stone, Clay and Glass Products	128	18	W	W	67	1	33	W	2	0	14.1
33	Primary Metal Industries	344	61	W	W	106	W	W	W	14	W	14.2
34	Fabricated Metal Products	W	17	2	2	32	W	W	W	W	0	17.5
35	Industrial Machinery and Equipment	37	15	1	1	16	1	0	0	2	0	15.6
36	Electronic and Other Electric Equipment	70	25	W	1	22	1	W	W	W	0	24.1
37	Transportation Equipment	41	12	6	2	13	W	W	0	2	0	17.2
38	Instruments and Related Products	52	13	3	1	10	W	W	0	1	0	21.3
39	Misc. Manufacturing Industries	21	6	1	1	6	*	W	0	W	0	27.1
	Total	1,964	321	152	42	518	34	458	9	622	191	6.1

See footnotes at end of table.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	Shipments[g]	RSE Row Factors
		Midwest Census Region										
	RSE Column Factors:	0.5	0.5	1.6	1.2	0.5	1.2	1.2	1.4	1.2	1.9	
20	Food and Kindred Products	492	80	7	2	265	W	121	W	14	0	9.6
21	Tobacco Products	W	W	0	W	W	0	0	0	W	0	54.3
22	Textile Mill Products	6	W	0	W	4	W	0	0	W	0	30.3
23	Apparel and Other Textile Products	7	3	0	W	4	W	0	0	W	0	32.7
24	Lumber and Wood Products	W	10	W	W	13	1	W	0	W	0	20.8
25	Furniture and Fixtures	27	7	*	*	12	*	1	0	Q	0	22.7
26	Paper and Allied Products	W	53	5	1	117	W	W	0	W	0	7.1
27	Printing and Publishing	42	20	*	W	20	W	0	0	1	0	15.5
28	Chemicals and Allied Products	573	138	4	1	278	52	W	W	50	9	11.3
29	Petroleum and Coal Products[h]	1,054	26	24	W	88	5	W	0	910	Q	9.9
30	Rubber and Misc. Plastics Products	112	55	W	W	50	1	W	0	2	0	14.0
31	Leather and Leather Products	W	W	W	W	W	W	0	0	W	0	33.2
32	Stone, Clay and Glass Products	261	33	W	W	117	W	67	W	34	0	15.7
33	Primary Metal Industries	1,271	173	30	4	425	W	352	W	41	56	9.2
34	Fabricated Metal Products	198	58	W	1	130	2	5	W	W	0	19.5
35	Industrial Machinery and Equipment	130	51	1	2	62	1	11	0	2	0	14.6
36	Electronic and Other Electric Equipment	63	29	W	W	31	W	W	0	2	0	18.1
37	Transportation Equipment	182	60	W	3	86	1	21	W	8	0	17.4
38	Instruments and Related Products	19	8	W	*	W	W	0	0	Q	0	23.2
39	Misc. Manufacturing Industries	10	3	0	W	7	W	W	0	W	0	37.9
	Total	4,873	811	78	25	1,720	70	727	306	1,204	66	6.0
		South Census Region										
	RSE Column Factors:	0.5	0.4	1.4	1.3	0.5	1.1	1.3	2.2	1.0	1.8	
20	Food and Kindred Products	362	66	9	W	163	W	W	W	100	0	9.6
21	Tobacco Products	19	W	W	W	3	W	W	0	W	0	27.2
22	Textile Mill Products	267	103	10	6	96	W	W	0	11	0	16.6
23	Apparel and Other Textile Products	31	15	W	W	14	W	W	0	W	0	23.1
24	Lumber and Wood Products	242	32	W	12	18	W	W	0	178	0	13.5
25	Furniture and Fixtures	32	11	*	*	8	*	1	0	11	0	15.1
26	Paper and Allied Products	1,632	97	82	5	294	2	165	0	988	0	5.3
27	Printing and Publishing	36	21	W	W	13	*	0	0	1	0	19.9
28	Chemicals and Allied Products	4,372	300	W	W	2,106	1,467	205	4	357	157	7.2
29	Petroleum and Coal Products[h]	3,705	61	18	W	553	W	W	W	3,123	Q	10.6
30	Rubber and Misc. Plastics Products	113	59	5	2	41	1	2	0	2	0	9.9
31	Leather and Leather Products	1	W	W	W	*	W	0	0	W	0	43.7
32	Stone, Clay and Glass Products	382	50	W	7	183	W	109	W	26	0	11.7
33	Primary Metal Industries	620	162	7	4	207	2	198	109	14	82	9.9
34	Fabricated Metal Products	73	28	W	1	41	1	W	0	W	0	16.4
35	Industrial Machinery and Equipment	58	30	W	1	25	1	0	W	1	0	15.2
36	Electronic and Other Electric Equipment	80	38	*	1	27	1	1	1	11	0	18.0
37	Transportation Equipment	90	38	W	2	36	1	W	W	7	0	16.9
38	Instruments and Related Products	20	14	W	W	5	*	0	0	1	0	29.4
39	Misc. Manufacturing Industries	14	7	*	W	5	W	0	0	W	0	32.1
	Total	12,150	1,135	223	59	3,838	1,490	754	117	4,833	301	5.1

See footnotes at end of table.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	Shipments[g]	RSE Row Factors
		West Census Region										
	RSE Column Factors:	0.5	0.4	1.3	1.2	0.6	1.1	1.3	1.3	0.9	3.2	
20	Food and Kindred Products	245	31	4	7	152	W	25	W	24	0	9.9
21	Tobacco Products	0	0	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	5	W	0	0	3	W	0	0	W	0	33.6
23	Apparel and Other Textile Products	W	2	0	0	2	W	0	0	*	0	38.3
24	Lumber and Wood Products	156	21	W	9	14	W	0	0	109	0	16.1
25	Furniture and Fixtures	4	2	0	*	2	*	0	0	*	0	31.4
26	Paper and Allied Products	366	42	11	1	116	W	W	0	184	0	9.0
27	Printing and Publishing	14	7	0	W	6	W	0	0	W	0	22.5
28	Chemicals and Allied Products	221	44	W	W	126	W	25	W	17	W	18.7
29	Petroleum and Coal Products[h]	1,077	24	16	7	131	W	W	0	888	24	10.3
30	Rubber and Misc. Plastics Products	W	13	W	W	6	W	W	0	*	0	23.6
31	Leather and Leather Products	W	W	0	0	W	*	0	0	W	0	74.4
32	Stone, Clay and Glass Products	173	22	W	5	65	1	64	W	11	0	15.5
33	Primary Metal Industries	227	97	W	W	73	W	W	W	16	W	8.7
34	Fabricated Metal Products	W	11	0	*	17	W	0	W	W	0	23.2
35	Industrial Machinery and Equipment	21	13	0	*	8	*	0	0	*	0	22.1
36	Electronic and Other Electric Equipment	30	21	0	W	8	W	0	0	W	0	20.4
37	Transportation Equipment	51	22	W	1	22	W	0	0	6	0	22.5
38	Instruments and Related Products	17	11	0	W	W	W	0	0	*	0	19.2
39	Misc. Manufacturing Industries	W	3	0	W	2	W	0	0	*	0	44.0
	Total	2,676	389	37	33	759	37	166	17	1,266	29	6.0

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Total" is the sum of all of the listed energy sources, including "Other," minus the shipments of energy sources produced onsite. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.

[c] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[d] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[e] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[f] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs. See also Footnote "h".

[g] "Shipments" are shipments of energy sources produced onsite, which are those shipments produced or transformed onsite from the nonfuel use of other energy sources. For example, at an establishment that processes coal to make coke for later use, the entire quantity of coal is counted as first use. Any onsite consumption of coke is not counted as first use because it would duplicate the coal use. If some of the coke is then sold to another establishment, then that second establishment will consider this coke to be a shipment of an offsite-produced energy source. Hence, the second establishment will count this coke as its first use, thereby resulting in double counting. In order to eliminate the double counting, the energy equivalent of the coke shipment must be subtracted from first use.

[h] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. The remaining columns for the petroleum refining industry include only energy that was consumed for the production of heat and power. The "Other" column also includes net steam and other energy that respondents indicated was used in the production of heat and power. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy for heat and power and as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Industry Group and Selected Industries, 1994: Part 4

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	Ship-ments[g]	RSE Row Factors
	RSE Column Factors:	0.5	0.5	1.2	1.1	0.6	1.1	1.2	1.5	1.1	1.8	
20	Food and Kindred Products	1,193	198	30	19	631	W	165	W	141	0	5.7
2011	*Meat Packing Plants*	53	13	1	1	36	W	W	0	2	0	16.0
2033	*Canned Fruits and Vegetables*	51	5	2	1	43	W	W	0	*	0	15.7
2037	*Frozen Fruits and Vegetables*	42	10	1	*	28	*	0	0	2	0	18.0
2046	*Wet Corn Milling*	173	19	1	*	68	*	78	*	5	0	20.4
2051	*Bread, Cake, and Related Products*	37	8	*	1	27	*	0	0	*	0	21.8
2061	*Cane Sugar, Except Refining*	111	W	W	1	2	W	W	0	105	0	19.1
2062	*Cane Sugar Refining*	23	*	2	1	16	*	0	0	4	0	29.6
2063	*Beet Sugar*	64	1	2	W	19	W	39	W	*	0	3.5
2075	*Soybean Oil Mills*	57	6	1	W	31	W	15	0	3	0	1.4
2082	*Malt Beverages*	51	8	W	*	22	W	17	0	*	0	8.1
21	Tobacco Products	W	3	1	W	W	W	W	0	W	0	25.5
22	Textile Mill Products	310	111	17	7	117	4	40	0	14	0	13.1
23	Apparel and Other Textile Products	W	26	W	1	25	W	W	0	W	0	20.9
24	Lumber and Wood Products	491	68	2	25	48	W	W	0	341	0	9.3
2421	*Sawmills and Planing Mills, General*	201	22	W	7	11	W	0	0	160	0	14.3
2436	*Softwood Veneer and Plywood*	74	9	*	1	3	1	0	0	61	0	15.3
2493	*Reconstituted Wood Products*	98	15	1	1	18	W	W	0	60	0	14.2
25	Furniture and Fixtures	69	22	*	1	24	1	3	0	18	0	13.4
2511	*Wood Furniture, Except Upholstered*	24	7	*	*	2	*	1	0	13	0	15.6
26	Paper and Allied Products	2,665	223	173	9	575	5	307	0	1,373	0	3.6
2611	*Pulp Mills*	W	7	23	1	22	W	7	0	W	0	13.5
2621	*Paper Mills*	1,297	117	94	4	272	2	195	0	612	0	5.5
2631	*Paperboard Mills*	954	46	50	2	199	*	101	0	556	0	2.9
27	Printing and Publishing	112	59	W	2	48	W	0	0	2	0	10.6
28	Chemicals and Allied Products	5,328	520	110	14	2,569	1,535	293	11	442	166	6.4
2812	*Alkalies and Chlorine*	135	46	W	*	54	W	W	0	16	0	9.1
2813	*Industrial Gases*	104	80	0	W	23	W	*	1	1	W	25.9
2816	*Inorganic Pigments*	51	8	1	W	22	W	W	W	11	0	10.0
2819	*Industrial Inorganic Chemicals, nec.*	377	144	W	2	150	W	W	9	28	*	14.5
2821	*Plastics Materials and Resins*	642	56	3	1	241	317	19	0	26	21	9.1
2822	*Synthetic Rubber*	102	8	W	W	55	25	4	0	9	0	26.2
2823	*Cellulosic Manmade Fibers*	28	1	0	*	W	W	W	0	W	0	1.2
2824	*Organic Fibers, Noncellulosic*	116	24	9	1	40	W	W	0	W	W	8.3
2861	*Gum and Wood Chemicals*	28	1	*	W	4	W	4	W	19	0	7.4
2865	*Cyclic Crudes and Intermediates*	206	16	W	1	101	W	3	0	35	0	19.5
2869	*Industrial Organic Chemicals, nec.*	2,369	64	5	2	1,068	1,008	W	W	250	142	9.8
2873	*Nitrogenous Fertilizers*	622	13	0	*	606	*	0	0	2	0	14.0
2874	*Phosphatic Fertilizers*	46	4	W	W	14	*	W	0	25	0	6.4
2895	*Carbon Black*	80	W	59	W	20	W	0	0	*	0	13.2
29	Petroleum and Coal Products	6,339	121	71	22	811	47	W	W	5,344	87	8.1
2911	*Petroleum Refining*[h]	6,263	114	68	7	756	W	W	0	5,271	0	5.6
30	Rubber and Misc. Plastics Products	287	149	10	4	110	3	5	0	6	0	7.7
3011	*Tires and Inner Tubes*	49	16	5	1	23	*	2	0	2	0	9.9
308	*Miscellaneous Plastics Products, nec.*	192	116	3	2	64	3	2	0	3	0	11.6
31	Leather and Leather Products	W	3	2	W	W	W	0	0	*	0	21.9
32	Stone, Clay and Glass Products	944	123	7	23	432	4	274	8	73	0	7.7
3211	*Flat Glass*	52	5	2	*	45	*	0	0	1	0	20.3
3221	*Glass Containers*	83	15	2	*	66	*	0	0	*	0	8.3
3229	*Pressed and Blown Glass, nec.*	63	11	W	*	51	W	0	0	*	0	11.1
3241	*Cement, Hydraulic*	327	37	1	5	25	*	202	4	53	0	12.6
3274	*Lime*	96	4	1	1	13	*	66	2	9	0	20.8
3296	*Mineral Wool*	51	12	W	*	37	W	0	2	*	0	15.0
33	Primary Metal Industries	2,462	493	43	13	811	5	922	424	85	334	6.3
331	*Blast Furnace and Basic Steel Products*	1,747	182	42	W	526	W	906	386	33	334	9.3
3312	*Blast Furnaces and Steel Mills*	1,649	148	42	W	484	W	893	385	26	334	7.7
3313	*Electrometallurgical Products*	38	16	0	*	3	*	13	Q	5	0	40.7
3321	*Gray and Ductile Iron Foundries*	94	30	*	1	33	1	1	29	1	*	13.0
3331	*Primary Copper*	32	5	W	W	22	W	W	0	W	0	1.1
3334	*Primary Aluminum*	241	183	W	1	17	W	W	W	40	0	1.4
3339	*Primary Nonferrous Metals, nec.*	45	14	W	W	12	*	10	W	2	0	15.0
3353	*Aluminum Sheet, Plate, and Foil*	73	16	0	W	53	*	W	0	3	0	6.9

See footnotes at end of table.

Table A1. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Industry Group and Selected Industries, 1994: Part 4 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	Shipments[g]	RSE Row Factors
	RSE Column Factors:	0.5	0.5	1.2	1.1	0.6	1.1	1.2	1.5	1.1	1.8	
34	Fabricated Metal Products	367	115	W	4	220	5	W	W	Q	0	13.7
35	*Industrial Machinery and Equipment*	246	109	W	4	111	3	11	W	5	0	9.4
357	*Computer and Office Equipment*	20	14	W	*	5	W	0	0	*	0	28.6
36	Electronic and Other Electric Equipment	243	113	3	2	88	2	W	W	Q	0	13.0
37	Transportation Equipment	363	132	11	7	157	3	28	2	23	0	10.6
3711	*Motor Vehicles and Car Bodies*	107	30	2	*	53	*	13	0	8	0	22.0
3714	*Motor Vehicle Parts and Accessories*	119	46	W	1	56	1	10	W	3	0	18.1
38	Instruments and Related Products	107	46	4	1	29	W	W	0	3	0	17.7
3841	*Surgical and Medical Instruments*	7	5	*	*	2	*	0	0	*	0	24.0
39	Misc. Manufacturing Industries	W	19	1	1	19	1	1	0	W	0	21.9
	Total	21,663	2,656	490	158	6,835	1,631	2,105	449	7,926	587	3.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Total" is the sum of all of the listed energy sources, including "Other," minus the shipments of energy sources produced onsite. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.

[c] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[d] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[e] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[f] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs. See also Footnote "h".

[g] "Shipments" are shipments of energy sources produced onsite, which are those shipments produced or transformed onsite from the nonfuel use of other energy sources. For example, at an establishment that processes coal to make coke for later use, the entire quantity of coal is counted as first use. Any onsite consumption of coke is not counted as first use because it would duplicate the coal use. If some of the coke is then sold to another establishment, then that second establishment will consider this coke to be a shipment of an offsite-produced energy source. Hence, the second establishment will count this coke as its first use, thereby resulting in double counting. In order to eliminate the double counting, the energy equivalent of the coke shipment must be subtracted from first use.

[h] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. The remaining columns for the petroleum refining industry include only energy that was consumed for the production of heat and power. The "Other" column also includes net steam and other energy that respondents indicated was used in the production of heat and power. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy for heat and power and as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A1. Number of Establishments by Total First Use (formerly Primary Consumption) of Energy for All Purposes, by Industry Group and Selected Industries, 1994: Part 5

SIC Code[a]	Industry Group and Industry	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	RSE Row Factors
	RSE Column Factors:	0.2	0.2	2.4	1.5	0.7	1.4	2.2	2.5	1.4	
20	Food and Kindred Products	14,695	14,637	575	3,255	11,208	3,898	173	32	2,365	4.4
2011	*Meat Packing Plants*	759	759	21	144	528	121	W	0	107	9.7
2033	*Canned Fruits and Vegetables*	531	531	53	99	507	287	W	0	121	7.4
2037	*Frozen Fruits and Vegetables*	232	231	Q	Q	195	Q	0	0	Q	8.6
2046	*Wet Corn Milling*	58	58	4	20	48	16	20	W	17	5.9
2051	*Bread, Cake, and Related Products*	1,303	1,303	13	250	1,011	179	0	0	162	12.5
2061	*Cane Sugar, Except Refining*	43	43	12	26	25	6	W	0	39	4.7
2062	*Cane Sugar Refining*	20	20	8	15	11	11	0	0	8	7.3
2063	*Beet Sugar*	41	41	13	30	36	28	28	W	25	1.2
2075	*Soybean Oil Mills*	95	92	13	40	88	14	18	0	38	1.1
2082	*Malt Beverages*	140	140	47	35	133	80	33	0	61	4.6
21	Tobacco Products	121	121	42	42	94	48	31	0	48	4.6
22	Textile Mill Products	4,427	4,427	441	679	2,517	1,295	85	0	635	9.1
23	Apparel and Other Textile Products	18,019	17,754	20	876	8,885	1,330	5	0	584	10.5
24	Lumber and Wood Products	21,425	18,896	114	9,280	7,561	5,089	8	0	6,024	7.4
2421	*Sawmills and Planing Mills, General*	3,406	3,191	Q	2,045	657	447	0	0	1,391	10.1
2436	*Softwood Veneer and Plywood*	182	182	W	158	67	160	0	0	174	3.6
2493	*Reconstituted Wood Products*	246	246	Q	101	132	129	W	0	109	19.8
25	Furniture and Fixtures	7,686	7,535	43	584	5,109	2,681	85	0	863	9.3
2511	*Wood Furniture, Except Upholstered*	1,543	1,543	25	240	776	460	62	0	394	12.3
26	Paper and Allied Products	5,582	5,547	382	876	4,291	2,343	173	0	949	4.8
2611	*Pulp Mills*	55	55	26	38	40	38	7	0	41	3.1
2621	*Paper Mills*	310	310	153	166	232	200	80	0	211	1.8
2631	*Paperboard Mills*	219	219	101	102	189	121	57	0	116	1.2
27	Printing and Publishing	37,384	37,335	82	1,857	22,688	3,601	0	0	850	8.9
28	Chemicals and Allied Products	9,552	9,555	355	2,701	6,795	2,752	150	24	2,162	5.3
2812	*Alkalies and Chlorine*	44	44	3	23	33	15	3	0	30	2.8
2813	*Industrial Gases*	613	617	0	10	152	12	W	W	35	9.6
2816	*Inorganic Pigments*	81	81	7	32	66	47	7	3	30	2.8
2819	*Industrial Inorganic Chemicals, nec.*	568	568	27	286	497	172	17	6	268	6.7
2821	*Plastics Materials and Resins*	456	456	49	161	395	250	15	0	224	5.2
2822	*Synthetic Rubber*	63	63	6	20	53	28	4	0	24	6.0
2823	*Cellulosic Manmade Fibers*	11	11	0	6	6	3	4	0	7	1.3
2824	*Organic Fibers, Noncellulosic*	73	73	23	33	62	39	13	0	25	2.3
2861	*Gum and Wood Chemicals*	60	60	W	38	22	22	13	W	41	2.9
2865	*Cyclic Crudes and Intermediates*	187	187	39	73	178	82	7	0	107	5.4
2869	*Industrial Organic Chemicals, nec.*	631	631	40	250	551	211	25	W	218	7.0
2873	*Nitrogenous Fertilizers*	118	117	0	52	79	28	0	0	48	4.2
2874	*Phosphatic Fertilizers*	66	68	5	46	51	13	4	0	31	2.0
2895	*Carbon Black*	23	23	17	12	23	W	0	0	10	4.0
29	Petroleum and Coal Products	1,948	1,960	115	826	1,148	696	15	W	448	8.4
2911	*Petroleum Refining*[g]	246	246	72	82	218	99	5	0	187	1.9
30	Rubber and Misc. Plastics Products	11,952	11,942	208	1,051	8,990	4,240	23	0	1,718	6.3
3011	*Tires and Inner Tubes*	112	112	32	69	112	88	8	0	69	4.7
308	*Miscellaneous Plastics Products, nec.*	9,967	9,957	114	617	7,422	3,726	6	0	1,389	6.7
31	Leather and Leather Products	1,356	1,356	54	108	975	158	0	0	127	11.8
32	Stone, Clay and Glass Products	11,891	11,815	76	3,914	7,017	2,335	235	46	2,563	6.0
3211	*Flat Glass*	68	68	W	43	62	47	0	0	39	3.9
3221	*Glass Containers*	78	78	11	30	78	45	0	0	35	2.9
3229	*Pressed and Blown Glass, nec.*	163	163	W	39	163	36	0	0	101	10.1
3241	*Cement, Hydraulic*	190	190	11	157	127	72	150	13	144	6.3
3274	*Lime*	84	83	3	68	53	23	46	5	53	5.6
3296	*Mineral Wool*	174	174	W	103	169	115	0	25	107	3.2
33	Primary Metal Industries	5,171	5,117	91	1,299	4,652	2,273	146	266	1,882	4.9
331	*Blast Furnace and Basic Steel Products*	981	981	43	318	931	495	83	56	369	5.2
3312	*Blast Furnaces and Steel Mills*	284	284	26	155	261	103	61	51	149	2.1
3313	*Electrometallurgical Products*	36	36	0	18	32	18	11	Q	22	10.8
3321	*Gray and Ductile Iron Foundries*	517	517	Q	289	488	291	Q	171	316	7.4
3331	*Primary Copper*	20	20	W	8	18	5	W	0	7	1.1
3334	*Primary Aluminum*	44	44	W	36	42	28	10	W	36	3.6
3339	*Primary Nonferrous Metals, nec.*	88	88	W	25	72	32	6	7	36	8.5
3353	*Aluminum Sheet, Plate, and Foil*	55	55	0	38	53	35	W	0	37	2.5

See footnotes at end of table.

Table A1. Number of Establishments by Total First Use (formerly Primary Consumption) of Energy for All Purposes, by Industry Group and Selected Industries, 1994: Part 5 (Continued)

SIC Code[a]	Industry Group and Industry	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	RSE Row Factors
	RSE Column Factors:	0.2	0.2	2.4	1.5	0.7	1.4	2.2	2.5	1.4	
34	Fabricated Metal Products	26,262	26,251	94	2,968	20,061	8,370	68	12	7,202	7.6
35	Industrial Machinery and Equipment	33,837	33,655	97	2,793	24,479	9,290	Q	W	8,891	5.8
357	*Computer and Office Equipment*	1,410	1,381	W	54	1,037	Q	0	0	14	15.0
36	Electronic and Other Electric Equipment	11,254	11,254	65	748	7,536	1,920	12	4	1,593	7.8
37	Transportation Equipment	7,240	7,240	46	816	4,460	2,742	32	6	2,256	8.2
3711	*Motor Vehicles and Car Bodies*	322	322	W	Q	261	Q	Q	0	Q	12.0
3714	*Motor Vehicle Parts and Accessories*	2,062	2,062	5	145	1,603	901	22	4	707	9.8
38	Instruments and Related Products	7,059	7,059	Q	869	4,785	858	Q	0	513	10.4
3841	*Surgical and Medical Instruments*	878	878	3	24	578	198	0	0	47	14.5
39	Misc. Manufacturing Industries	9,994	9,994	161	856	6,644	1,352	3	0	1,234	10.4
	Total	246,855	243,452	3,146	36,398	159,896	57,271	1,496	394	42,906	3.1

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Any Energy Source" represents the non-duplicative total of establishments identified with any of the listed energy sources. This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

[c] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[d] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[e] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[f] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs. See also Footnote "g".

[g] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. The remaining columns for the petroleum refining industry include only energy that was consumed for the production of heat and power. The "Other" column also includes net steam and other energy that respondents indicated was used in the production of heat and power. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy for heat and power and as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A2. Total Consumption of LPG, Distillate Fuel Oil, and Residual Fuel Oil for Selected Purposes by Census Region and Industry Group, 1994: Part 1

(Estimates in Barrels per Day)

SIC Code[a]	Industry Group	First Use of Energy for All Purposes			Inputs for Heat, Power, and Generation of Electricity			First Use of Energy for Nonfuel Purposes			RSE Row Factors
		LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	
		Total United States									
	RSE Column Factors:	0.7	0.8	0.8	0.7	0.8	0.8	1.9	1.9	1.6	
20	Food and Kindred Products	W	8,714	13,111	4,676	8,711	13,111	W	11	0	13.1
21	Tobacco Products	W	W	366	W	W	366	0	0	0	37.7
22	Textile Mill Products	2,737	3,490	7,343	W	W	7,343	W	*	0	22.6
23	Apparel and Other Textile Products	W	289	W	W	289	W	0	0	0	42.6
24	Lumber and Wood Products	W	11,819	1,064	W	10,392	W	W	1,427	W	18.2
25	Furniture and Fixtures	578	421	164	578	419	164	*	Q	0	20.6
26	Paper and Allied Products	3,655	4,285	75,190	3,603	4,274	75,190	W	16	0	6.2
27	Printing and Publishing	W	725	W	W	715	W	0	W	0	21.2
28	Chemicals and Allied Products	1,194,319	6,368	47,828	W	6,031	26,212	1,191,380	W	21,616	7.8
29	Petroleum and Coal Products[c]	32,135	10,468	30,777	32,107	10,006	31,172	W	Q	0	9.4
30	Rubber and Misc. Plastics Products	2,520	1,697	4,384	2,257	1,480	4,384	W	Q	0	12.6
31	Leather and Leather Products	W	W	685	W	W	685	0	*	0	31.4
32	Stone, Clay and Glass Products	2,908	10,878	3,251	2,896	10,732	3,251	W	146	0	14.7
33	Primary Metal Industries	4,077	6,001	18,826	4,032	5,825	18,823	W	176	W	12.3
34	Fabricated Metal Products	3,675	2,052	W	3,656	2,046	1,308	W	W	W	22.1
35	Industrial Machinery and Equipment	2,485	1,914	W	2,426	1,841	W	59	72	0	15.4
36	Electronic and Other Electric Equip.	1,724	811	1,138	1,704	794	1,138	W	W	0	19.7
37	Transportation Equipment	2,560	3,175	4,880	W	3,077	4,880	W	Q	0	18.5
38	Instruments and Related Products	W	651	1,615	W	652	1,615	Q	W	0	23.0
39	Misc. Manufacturing Industries	456	573	389	W	573	389	W	0	0	32.8
	Total	1,263,090	74,509	213,725	71,094	71,525	192,086	1,192,052	3,218	22,033	5.3
		Northeast Census Region									
	RSE Column Factors:	0.9	0.8	0.7	1.0	0.8	0.7	1.8	2.1	0.0	
20	Food and Kindred Products	W	W	4,097	W	W	4,097	*	0	0	19.0
21	Tobacco Products	W	W	W	W	W	W	0	0	0	47.4
22	Textile Mill Products	640	W	2,891	640	W	2,891	W	0	0	18.4
23	Apparel and Other Textile Products	W	W	W	W	W	W	0	0	0	53.9
24	Lumber and Wood Products	W	W	W	W	677	W	16	W	0	32.5
25	Furniture and Fixtures	54	212	Q	54	212	Q	0	0	0	33.6
26	Paper and Allied Products	W	1,139	32,462	1,206	1,135	32,462	W	W	0	11.3
27	Printing and Publishing	W	388	W	W	376	W	0	W	0	27.7
28	Chemicals and Allied Products	W	W	9,263	W	2,054	9,263	12,117	W	0	14.5
29	Petroleum and Coal Products[c]	W	3,652	5,695	W	3,630	6,089	W	W	0	15.4
30	Rubber and Misc. Plastics Products	W	W	W	W	604	W	W	W	0	20.2
31	Leather and Leather Products	46	W	424	46	W	424	0	*	0	35.3
32	Stone, Clay and Glass Products	605	W	W	605	2,440	W	0	W	0	20.9
33	Primary Metal Industries	W	W	W	1,357	W	W	W	W	0	21.9
34	Fabricated Metal Products	W	1,121	846	727	1,121	831	W	0	W	27.5
35	Industrial Machinery and Equipment	482	692	520	460	687	520	W	5	0	19.1
36	Electronic and Other Electric Equip.	636	449	W	636	443	W	W	W	0	26.3
37	Transportation Equipment	W	767	2,717	W	745	2,717	W	W	0	22.1
38	Instruments and Related Products	W	552	1,517	W	552	1,517	*	0	0	26.4
39	Misc. Manufacturing Industries	142	284	316	W	284	316	W	0	0	26.8
	Total	25,091	19,669	66,382	12,776	19,496	66,761	12,315	W	W	7.7

See footnotes at end of table.

Table A2. Total Consumption of LPG, Distillate Fuel Oil, and Residual Fuel Oil for Selected Purposes by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Barrels per Day)

SIC Code[a]	Industry Group	First Use of Energy for All Purposes			Inputs for Heat, Power, and Generation of Electricity			First Use of Energy for Nonfuel Purposes			RSE Row Factors
		LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	
		Midwest Census Region									
	RSE Column Factors:	0.7	0.8	0.9	0.7	0.8	0.9	1.4	1.5	1.8	
20	Food and Kindred Products	W	1,020	3,222	W	W	3,222	W	W	0	19.7
21	Tobacco Products	0	W	0	0	W	0	0	0	0	50.5
22	Textile Mill Products	W	W	0	W	W	0	W	W	0	43.3
23	Apparel and Other Textile Products	W	W	0	W	W	0	0	0	0	0.0
24	Lumber and Wood Products	740	W	W	737	770	W	W	W	W	30.6
25	Furniture and Fixtures	177	28	10	177	27	10	*	W	0	34.4
26	Paper and Allied Products	W	449	2,219	W	448	2,219	W	W	0	11.9
27	Printing and Publishing	W	W	*	W	W	*	0	0	0	29.4
28	Chemicals and Allied Products	41,203	518	1,850	699	W	W	40,504	W	W	18.0
29	Petroleum and Coal Products[c]	3,503	W	10,244	W	W	10,244	Q	W	0	13.7
30	Rubber and Misc. Plastics Products	657	W	W	613	W	W	W	Q	0	20.9
31	Leather and Leather Products	W	W	W	W	W	W	0	0	0	47.2
32	Stone, Clay and Glass Products	W	W	W	W	2,656	W	W	W	0	35.3
33	Primary Metal Industries	W	1,822	13,242	W	W	13,242	W	W	0	16.2
34	Fabricated Metal Products	1,801	283	W	W	277	W	W	W	0	30.4
35	Industrial Machinery and Equipment	1,089	873	483	1,069	819	483	21	54	0	25.1
36	Electronic and Other Electric Equip.	W	W	W	W	W	W	W	W	0	33.3
37	Transportation Equipment	1,039	1,239	W	1,019	1,186	W	W	W	0	33.7
38	*Instruments and Related Products*	W	10	W	W	8	W	*	W	0	40.5
39	Misc. Manufacturing Industries	W	W	0	W	W	0	W	0	0	58.0
	Total	54,661	11,584	33,982	13,981	11,051	32,791	40,680	723	1,190	11.9
		South Census Region									
	RSE Column Factors:	0.7	0.8	0.9	0.7	0.8	0.9	1.4	1.9	1.5	
20	Food and Kindred Products	W	W	4,097	1,891	W	4,097	W	W	0	17.6
21	Tobacco Products	W	W	W	W	W	W	0	0	0	36.3
22	Textile Mill Products	W	2,638	4,452	W	2,638	4,452	W	W	0	29.1
23	Apparel and Other Textile Products	W	W	W	W	W	W	0	0	0	47.1
24	Lumber and Wood Products	W	5,649	W	1,002	4,540	W	W	W	0	23.7
25	Furniture and Fixtures	292	180	135	292	180	135	0	W	0	23.3
26	Paper and Allied Products	1,270	2,444	35,538	1,261	2,446	35,538	W	W	0	8.7
27	*Printing and Publishing*	283	W	W	283	W	W	0	0	0	31.2
28	Chemicals and Allied Products	1,140,572	W	W	1,865	3,184	16,039	1,138,759	W	W	8.4
29	Petroleum and Coal Products[c]	W	W	7,971	W	2,436	7,971	Q	Q	0	16.6
30	Rubber and Misc. Plastics Products	981	967	2,288	853	764	2,288	128	Q	0	16.2
31	Leather and Leather Products	W	W	W	W	W	W	0	0	0	55.5
32	Stone, Clay and Glass Products	W	3,196	W	W	3,112	W	6	W	0	22.9
33	Primary Metal Industries	1,127	1,809	2,878	W	1,785	W	W	25	W	20.0
34	Fabricated Metal Products	813	535	W	812	535	W	Q	*	0	29.1
35	Industrial Machinery and Equipment	769	266	W	W	262	W	14	Q	0	26.8
36	Electronic and Other Electric Equip.	563	269	149	548	259	149	W	W	0	27.3
37	Transportation Equipment	1,039	758	W	W	746	W	13	11	0	24.0
38	Instruments and Related Products	33	W	W	W	W	W	Q	0	0	35.2
39	Misc. Manufacturing Industries	W	W	74	W	W	74	W	0	0	56.7
	Total	1,158,234	27,586	97,318	19,266	25,930	76,720	1,139,023	W	W	6.9

See footnotes at end of table.

Table A2. Total Consumption of LPG, Distillate Fuel Oil, and Residual Fuel Oil for Selected Purposes by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Barrels per Day)

SIC Code[a]	Industry Group	First Use of Energy for All Purposes			Inputs for Heat, Power, and Generation of Electricity			First Use of Energy for Nonfuel Purposes			RSE Row Factors
		LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	
		West Census Region									
	RSE Column Factors:	0.8	0.9	1.0	0.8	0.9	1.0	1.0	1.2	1.8	
20	Food and Kindred Products	W	3,273	1,694	W	3,268	1,694	*	*	0	21.0
21	Tobacco Products	0	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	0	W	0	0	0	0	0	55.5
23	Apparel and Other Textile Products	W	0	0	W	0	0	0	0	0	0.0
24	Lumber and Wood Products	W	4,415	W	W	4,405	W	*	W	W	20.8
25	Furniture and Fixtures	55	*	0	55	*	0	0	0	0	38.7
26	Paper and Allied Products	W	253	4,971	W	244	4,971	W	W	0	9.7
27	Printing and Publishing	W	W	0	W	W	0	0	W	0	52.4
28	Chemicals and Allied Products	W	W	W	W	W	W	0	W	W	23.9
29	Petroleum and Coal Products[c]	W	3,073	6,867	W	W	6,867	W	W	0	10.6
30	Rubber and Misc. Plastics Products	W	W	W	W	W	W	W	W	0	35.8
31	Leather and Leather Products	Q	0	0	Q	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	524	2,546	W	W	2,524	W	4	22	0	26.7
33	Primary Metal Industries	W	W	W	W	W	519	W	0	W	7.6
34	Fabricated Metal Products	W	112	0	W	112	0	*	0	0	33.0
35	*Industrial Machinery and Equipment*	145	83	0	W	73	0	W	Q	0	25.3
36	Electronic and Other Electric Equip.	W	W	0	W	W	0	*	*	0	30.5
37	Transportation Equipment	W	411	W	W	399	W	Q	12	0	36.4
38	Instruments and Related Products	W	W	0	W	W	0	*	0	0	28.0
39	Misc. Manufacturing Industries	W	W	0	W	W	0	Q	0	0	47.7
	Total	25,105	15,669	16,044	25,072	15,048	15,813	33	W	W	8.4

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] For the petroleum refining industry only, the column of "Primary Consumption for All Purposes" includes only energy consumed for heat, power, and generation of electricity. See Appendix B for more information.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the "First Use (formerly Primary Consumption) of Energy for All Purposes" which are presented in Table A1 and divided by 365; "Inputs for Heat, Power, and Generation of Electricity" which are presented in Table A4 and divided by 365; and "First Use *(formerly Primary Consumption) of Energy for Nonfuel Purposes*" which are presented in Table A3 and divided by 365. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A2. Total Consumption of LPG, Distillate Fuel Oil, and Residual Fuel Oil for Selected Purposes by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Barrels per Day)

SIC Code[a]	Industry Group and Industry	First Use of Energy for All Purposes			Inputs for Heat, Power, and Generation of Electricity			First Use of Energy for Nonfuel Purposes			RSE Row Factors
		LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	
	RSE Column Factors:	0.8	0.8	0.9	0.8	0.8	0.9	1.6	1.6	1.4	
20	Food and Kindred Products	W	8,714	13,111	4,676	8,711	13,111	W	11	0	12.8
2011	*Meat Packing Plants*	W	277	378	W	277	378	0	0	0	28.8
2033	*Canned Fruits and Vegetables*	W	327	659	W	326	659	*	*	0	19.8
2037	*Frozen Fruits and Vegetables*	208	169	558	203	169	558	W	0	0	31.2
2046	*Wet Corn Milling*	24	27	463	24	27	463	0	0	0	32.3
2051	*Bread, Cake, and Related Products*	243	359	Q	243	359	Q	0	0	0	40.0
2061	*Cane Sugar, Except Refining*	W	604	W	W	604	W	0	0	0	18.1
2062	*Cane Sugar Refining*	11	267	858	11	267	858	0	0	0	36.3
2063	*Beet Sugar*	W	W	738	W	W	738	0	0	0	4.1
2075	*Soybean Oil Mills*	W	W	402	W	W	402	W	W	0	1.5
2082	*Malt Beverages*	W	56	W	W	56	W	0	0	0	6.1
21	Tobacco Products	W	W	366	W	W	366	0	0	0	34.4
22	Textile Mill Products	2,737	3,490	7,343	W	W	7,343	W	*	0	21.4
23	Apparel and Other Textile Products	W	289	W	W	289	W	0	0	0	38.9
24	Lumber and Wood Products	W	11,819	1,064	W	10,392	W	W	1,427	W	17.8
2421	*Sawmills and Planing Mills, General*	W	3,304	W	W	3,304	W	0	*	0	24.5
2436	*Softwood Veneer and Plywood*	460	687	Q	460	687	Q	W	W	0	15.1
2493	*Reconstituted Wood Products*	W	351	542	W	W	W	W	W	W	18.2
25	Furniture and Fixtures	578	421	164	578	419	164	*	Q	0	18.8
2511	*Wood Furniture, Except Upholstered*	161	170	128	161	170	128	0	*	0	23.3
26	Paper and Allied Products	3,655	4,285	75,190	3,603	4,274	75,190	W	16	0	6.1
2611	*Pulp Mills*	W	488	9,816	W	W	9,816	W	W	0	17.2
2621	*Paper Mills*	1,304	2,043	40,938	1,275	2,039	40,938	W	W	0	9.4
2631	*Paperboard Mills*	326	859	21,683	W	W	21,683	W	W	0	4.2
27	Printing and Publishing	W	725	W	W	715	W	0	W	0	20.2
28	Chemicals and Allied Products	1,194,319	6,368	47,828	W	6,031	26,212	1,191,380	W	21,616	7.6
2812	*Alkalies and Chlorine*	W	144	W	4	141	W	W	4	0	11.0
2813	*Industrial Gases*	W	W	0	W	W	0	0	0	0	46.7
2816	*Inorganic Pigments*	W	W	435	W	W	W	W	0	W	11.7
2819	*Industrial Inorganic Chemicals, nec.*	W	723	W	W	W	1,611	W	W	W	14.8
2821	*Plastics Materials and Resins*	244,067	419	1,484	W	509	1,484	243,843	W	0	11.6
2822	*Synthetic Rubber*	18,902	W	W	W	42	W	18,891	W	0	27.6
2823	*Cellulosic Manmade Fibers*	W	62	0	W	62	0	0	0	0	1.3
2824	*Organic Fibers, Noncellulosic*	W	241	3,932	W	241	3,932	W	0	0	9.6
2861	*Gum and Wood Chemicals*	W	W	1	W	W	1	W	0	0	11.7
2865	*Cyclic Crudes and Intermediates*	W	559	W	764	559	W	W	W	0	30.4
2869	*Industrial Organic Chemicals, nec.*	773,620	873	2,179	726	869	2,179	772,894	W	0	12.0
2873	*Nitrogenous Fertilizers*	11	82	0	11	81	0	0	1	0	16.0
2874	*Phosphatic Fertilizers*	9	W	W	9	320	W	0	W	W	7.6
2895	*Carbon Black*	W	W	25,601	W	W	W	0	*	W	16.1
29	Petroleum and Coal Products	32,135	10,468	30,777	32,107	10,006	31,172	W	Q	0	8.9
2911	*Petroleum Refining*[c]	W	3,174	29,838	W	3,174	29,838	0	0	0	7.8
30	Rubber and Misc. Plastics Products	2,520	1,697	4,384	2,257	1,480	4,384	W	Q	0	12.0
3011	*Tires and Inner Tubes*	261	315	1,973	261	315	1,973	0	0	0	17.0
308	*Miscellaneous Plastics Products, nec.*	1,987	731	1,361	1,731	717	1,361	W	W	0	16.9
31	Leather and Leather Products	W	W	685	W	W	685	0	*	0	28.7
32	Stone, Clay and Glass Products	2,908	10,878	3,251	2,896	10,732	3,251	W	146	0	14.4
3211	*Flat Glass*	56	30	667	56	30	667	0	0	0	29.4
3221	*Glass Containers*	269	204	920	269	204	920	0	0	0	11.7
3229	*Pressed and Blown Glass, nec.*	W	157	W	W	156	W	*	*	0	18.6
3241	*Cement, Hydraulic*	24	2,345	432	24	2,247	432	*	98	0	21.2
3274	*Lime*	15	688	287	15	688	287	*	0	0	32.6
3296	*Mineral Wool*	W	43	W	W	25	W	W	W	0	16.7
33	Primary Metal Industries	4,077	6,001	18,826	4,032	5,825	18,823	W	176	W	12.3
331	*Blast Furnace and Basic Steel Prod.*	W	W	18,300	W	W	18,300	*	174	0	16.3
3312	*Blast Furnaces and Steel Mills*	W	W	18,245	W	W	18,245	*	174	0	10.6
3313	*Electrometallurgical Products*	13	57	0	13	57	0	*	*	0	43.3
3321	*Gray and Ductile Iron Foundries*	386	310	Q	385	310	Q	*	*	0	16.9
3331	*Primary Copper*	W	W	W	W	W	W	W	0	0	1.1
3334	*Primary Aluminum*	W	343	W	W	343	W	W	0	0	1.4
3339	*Primary Nonferrous Metals, nec.*	48	W	W	48	W	W	0	0	1	18.5
3353	*Aluminum Sheet, Plate, and Foil*	149	W	0	149	W	0	0	0	0	6.4

See footnotes at end of table.

Table A2. Total Consumption of LPG, Distillate Fuel Oil, and Residual Fuel Oil for Selected Purposes by Industry Group and Selected Industries, 1994: Part 2 (Continued)

(Estimates in Barrels per Day)

SIC Code[a]	Industry Group and Industry	First Use of Energy for All Purposes			Inputs for Heat, Power, and Generation of Electricity			First Use of Energy for Nonfuel Purposes			RSE Row Factors
		LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	LPG	Distillate[b]	Residual	
	RSE Column Factors:	0.8	0.8	0.9	0.8	0.8	0.9	1.6	1.6	1.4	
34	Fabricated Metal Products	3,675	2,052	W	3,656	2,046	1,308	W	W	W	20.9
35	Industrial Machinery and Equipment	2,485	1,914	W	2,426	1,841	W	59	72	0	15.0
357	*Computer and Office Equipment*	W	63	W	W	63	W	0	0	0	41.4
36	Electronic and Other Electric Equip.	1,724	811	1,138	1,704	794	1,138	W	W	0	18.7
37	Transportation Equipment	2,560	3,175	4,880	W	3,077	4,880	W	Q	0	17.5
3711	*Motor Vehicles and Car Bodies*	252	234	823	240	223	823	W	W	0	35.6
3714	*Motor Vehicle Parts and Accessories*	1,053	400	W	W	455	W	W	W	0	35.4
38	Instruments and Related Products	W	651	1,615	W	652	1,615	Q	W	0	21.1
3841	*Surgical and Medical Instruments*	83	35	45	83	35	45	0	0	0	49.3
39	Misc. Manufacturing Industries	456	573	389	W	573	389	W	0	0	31.1
	Total	1,263,090	74,509	213,725	71,094	71,525	192,086	1,192,052	3,218	22,033	5.3

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] For the petroleum refining industry only, the column of "Primary Consumption for All Purposes" includes only energy consumed for heat, power, and generation of electricity. See Appendix B for more information.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the "First Use (formerly Primary Consumption) of Energy for All Purposes" which are presented in Table A1 and divided by 365; "Inputs for Heat, Power, and Generation of Electricity" which are presented in Table A4 and divided by 365; and "First Use (formerly Primary Consumption) of Energy for Nonfuel Purposes" which are presented in Table A3 and divided by 365. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Census Region and Industry Group, 1994: Part 1

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total (trillion Btu)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
		Total United States								
	RSE Column Factors:	0.7	1.2	1.1	1.2	1.0	1.2	0.9	0.8	
20	Food and Kindred Products	10	0	4	2	W	0	W	8	23.1
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	*	W	W	0	0	*	45.2
23	Apparel and Other Textile Products	W	0	0	W	0	0	0	*	45.4
24	Lumber and Wood Products	57	W	521	*	W	0	0	53	34.2
25	Furniture and Fixtures	Q	0	Q	*	*	0	0	Q	0.0
26	Paper and Allied Products	33	0	6	W	W	*	0	32	16.7
27	Printing and Publishing	W	0	W	*	0	0	0	W	35.3
28	Chemicals and Allied Products	2,463	7,890	W	655	434,854	1,642	W	162	10.9
29	Petroleum and Coal Products[e]	3,168	0	Q	W	W	0	0	3,167	35.9
30	Rubber and Misc. Plastics Products	2	0	Q	*	W	W	0	1	30.4
31	Leather and Leather Products	W	0	*	*	0	0	0	W	55.5
32	Stone, Clay and Glass Products	2	0	53	1	W	W	W	1	26.1
33	Primary Metal Industries	955	W	64	9	W	32,561	578	62	13.6
34	Fabricated Metal Products	1	W	W	*	W	W	0	W	25.0
35	Industrial Machinery and Equipment	1	0	26	1	22	0	0	*	28.6
36	Electronic and Other Electric Equipment	13	0	W	1	W	0	W	11	30.7
37	Transportation Equipment	5	0	Q	3	W	*	W	1	38.8
38	Instruments and Related Products	Q	0	W	*	Q	0	0	W	42.5
39	Misc. Manufacturing Industries	W	0	0	*	W	0	0	W	34.5
	Total	6,717	8,042	1,175	673	435,099	34,206	958	3,505	9.3
		Northeast Census Region								
	RSE Column Factors:	0.9	0.0	1.2	1.2	1.1	0.8	1.1	0.9	
20	Food and Kindred Products	W	0	0	*	*	0	0	W	45.8
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	*	0	0	0	W	0	0	W	34.3
23	Apparel and Other Textile Products	W	0	0	W	0	0	0	W	0.0
24	Lumber and Wood Products	W	0	W	0	6	0	0	W	32.8
25	Furniture and Fixtures	W	0	0	0	0	0	0	W	51.9
26	Paper and Allied Products	W	0	W	W	W	0	0	W	20.8
27	Printing and Publishing	W	0	W	*	0	0	0	W	37.0
28	Chemicals and Allied Products	18	0	W	*	4,423	W	0	1	19.9
29	Petroleum and Coal Products[e]	282	0	W	0	W	0	0	282	40.0
30	Rubber and Misc. Plastics Products	W	0	W	W	W	0	0	*	0.0
31	Leather and Leather Products	W	0	*	*	0	0	0	W	0.0
32	Stone, Clay and Glass Products	*	0	W	W	0	0	0	W	37.0
33	Primary Metal Industries	344	0	W	*	W	W	W	W	22.8
34	Fabricated Metal Products	W	W	0	W	W	0	0	W	39.4
35	Industrial Machinery and Equipment	*	0	2	W	W	0	0	W	40.7
36	Electronic and Other Electric Equipment	1	0	W	W	W	0	W	W	37.5
37	Transportation Equipment	*	0	W	*	W	0	0	W	41.6
38	Instruments and Related Products	*	0	0	W	*	0	0	W	37.2
39	Misc. Manufacturing Industries	W	0	0	*	W	0	0	W	40.0
	Total	659	W	W	1	4,495	12,265	228	307	19.3

See footnotes at end of table.

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total (trillion Btu)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
		Midwest Census Region								
	RSE Column Factors:	0.7	1.6	1.2	0.9	1.3	0.8	1.0	0.8	
20	Food and Kindred Products	W	0	W	1	W	0	W	W	11.8
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	*	0	W	0	W	0	0	W	0.0
23	Apparel and Other Textile Products	0	0	0	0	0	0	0	0	0.0
24	Lumber and Wood Products	W	W	W	0	W	0	0	W	33.1
25	Furniture and Fixtures	Q	0	W	*	*	0	0	W	0.0
26	Paper and Allied Products	2	0	W	0	W	*	0	W	18.4
27	Printing and Publishing	W	0	0	W	0	0	0	*	38.1
28	Chemicals and Allied Products	154	W	W	75	14,784	W	W	23	17.9
29	Petroleum and Coal Products[e]	545	0	W	0	Q	0	0	W	33.0
30	Rubber and Misc. Plastics Products	1	0	Q	W	W	W	0	W	32.4
31	Leather and Leather Products	*	0	0	0	0	0	0	*	49.0
32	Stone, Clay and Glass Products	W	0	W	W	W	0	0	*	32.0
33	Primary Metal Industries	351	0	W	W	W	11,926	W	26	18.4
34	Fabricated Metal Products	*	0	W	W	W	W	0	W	35.1
35	Industrial Machinery and Equipment	1	0	20	*	8	0	0	*	36.4
36	Electronic and Other Electric Equipment	1	0	W	*	W	0	0	*	47.1
37	Transportation Equipment	3	0	W	3	W	0	0	1	49.3
38	Instruments and Related Products	Q	0	W	W	*	0	0	W	39.5
39	Misc. Manufacturing Industries	*	0	0	W	W	0	0	*	0.0
	Total	1,080	435	264	82	14,848	11,970	163	617	16.6
		South Census Region								
	RSE Column Factors:	0.8	1.1	1.2	1.1	0.9	1.1	1.1	0.8	
20	Food and Kindred Products	6	0	W	1	W	0	0	W	25.8
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	W	W	W	0	0	W	53.4
23	Apparel and Other Textile Products	*	0	0	W	0	0	0	W	50.5
24	Lumber and Wood Products	23	0	W	*	W	0	0	W	44.0
25	Furniture and Fixtures	*	0	W	0	0	0	0	W	43.3
26	Paper and Allied Products	W	0	W	W	W	0	0	W	24.4
27	Printing and Publishing	W	0	0	0	0	0	0	W	54.3
28	Chemicals and Allied Products	2,236	W	W	542	415,647	W	154	127	11.3
29	Petroleum and Coal Products[e]	1,969	0	Q	0	Q	0	0	1,969	44.0
30	Rubber and Misc. Plastics Products	W	0	Q	*	47	0	0	W	40.7
31	Leather and Leather Products	W	0	0	0	0	0	0	W	0.0
32	Stone, Clay and Glass Products	W	0	W	*	2	W	W	W	31.6
33	Primary Metal Industries	212	W	9	6	W	W	188	W	20.5
34	Fabricated Metal Products	W	0	*	W	Q	0	0	W	28.9
35	Industrial Machinery and Equipment	*	0	Q	W	5	0	0	W	32.3
36	Electronic and Other Electric Equipment	10	0	W	*	W	0	W	W	38.1
37	Transportation Equipment	1	0	4	*	5	*	W	W	38.0
38	Instruments and Related Products	*	0	0	W	Q	0	0	W	48.5
39	Misc. Manufacturing Industries	W	0	0	*	W	0	0	W	42.5
	Total	4,464	W	W	551	415,743	8,670	378	2,148	11.5

See footnotes at end of table.

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total (trillion Btu)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
		West Census Region								
	RSE Column Factors:	0.7	1.9	0.8	1.1	0.6	1.4	1.5	0.7	
20	Food and Kindred Products	*	0	*	*	*	0	0	*	33.6
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	0	0	0	0	0	W	0.0
23	Apparel and Other Textile Products	0	0	0	0	0	0	0	0	0.0
24	Lumber and Wood Products	12	W	W	0	*	0	0	11	28.1
25	Furniture and Fixtures	W	0	0	0	0	0	0	W	0.0
26	Paper and Allied Products	25	0	W	0	W	0	0	W	20.8
27	Printing and Publishing	W	0	W	W	0	0	0	W	51.5
28	Chemicals and Allied Products	55	W	W	38	0	W	W	11	17.9
29	Petroleum and Coal Products[e]	373	0	W	W	W	0	0	W	55.5
30	Rubber and Misc. Plastics Products	*	0	W	W	W	0	0	*	60.9
31	Leather and Leather Products	0	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	*	0	8	*	2	0	0	*	52.3
33	Primary Metal Industries	48	W	0	W	W	W	W	13	8.6
34	Fabricated Metal Products	*	0	0	W	*	0	0	W	0.0
35	Industrial Machinery and Equipment	*	0	Q	W	W	0	0	*	39.1
36	Electronic and Other Electric Equipment	*	0	*	W	*	0	0	W	33.9
37	Transportation Equipment	*	0	4	*	Q	0	0	*	47.6
38	Instruments and Related Products	*	0	0	*	*	0	0	*	49.6
39	Misc. Manufacturing Industries	W	0	0	W	Q	0	0	*	59.5
	Total	514	W	W	39	12	1,301	188	433	19.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[d] "Other" includes energy that respondents indicated was used as feedstock/raw material inputs. See also Footnote "e".

[e] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.8	1.1	1.1	1.2	1.1	1.0	1.0	0.9	
20	Food and Kindred Products	10	0	4	2	W	0	W	8	22.2
2011	*Meat Packing Plants*	*	0	0	W	0	0	0	W	28.6
2033	*Canned Fruits and Vegetables*	*	0	*	0	*	0	0	*	39.6
2037	*Frozen Fruits and Vegetables*	W	0	0	W	W	0	0	*	29.8
2046	*Wet Corn Milling*	*	0	0	0	0	0	0	*	41.7
2051	*Bread, Cake, and Related Products*	*	0	0	0	0	0	0	*	35.8
2061	*Cane Sugar, Except Refining*	6	0	0	W	0	0	0	W	24.1
2062	*Cane Sugar Refining*	0	0	0	0	0	0	0	0	0.0
2063	*Beet Sugar*	W	0	0	0	0	0	W	*	11.4
2075	*Soybean Oil Mills*	W	0	W	1	W	0	0	W	2.2
2082	*Malt Beverages*	*	0	0	0	0	0	0	*	0.0
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	*	W	W	0	0	*	42.9
23	Apparel and Other Textile Products	W	0	0	W	0	0	0	*	41.5
24	Lumber and Wood Products	57	W	521	*	W	0	0	53	32.8
2421	*Sawmills and Planing Mills, General*	3	0	*	0	0	0	0	3	40.6
2436	*Softwood Veneer and Plywood*	Q	0	W	0	W	0	0	Q	0.0
2493	*Reconstituted Wood Products*	27	W	W	0	W	0	0	27	21.4
25	Furniture and Fixtures	Q	0	Q	*	*	0	0	Q	0.0
2511	*Wood Furniture, Except Upholstered*	*	0	*	0	0	0	0	*	33.4
26	Paper and Allied Products	33	0	6	W	W	*	0	32	16.6
2611	*Pulp Mills*	W	0	W	0	W	0	0	W	31.1
2621	*Paper Mills*	5	0	W	W	W	*	0	W	25.7
2631	*Paperboard Mills*	25	0	W	*	W	0	0	25	11.6
27	Printing and Publishing	W	0	W	*	0	0	0	W	33.6
28	Chemicals and Allied Products	2,463	7,890	W	655	434,854	1,642	W	162	10.8
2812	*Alkalies and Chlorine*	9	0	1	*	W	0	0	W	10.8
2813	*Industrial Gases*	7	0	0	4	0	W	W	1	42.2
2816	*Inorganic Pigments*	11	W	0	W	W	W	W	W	15.1
2819	*Industrial Inorganic Chemicals, nec.*	40	W	W	8	W	W	W	W	25.1
2821	*Plastics Materials and Resins*	W	0	W	W	89,003	0	0	4	13.8
2822	*Synthetic Rubber*	39	0	W	13	6,895	0	0	W	36.3
2823	*Cellulosic Manmade Fibers*	W	0	0	0	0	0	0	W	1.2
2824	*Organic Fibers, Noncellulosic*	W	0	0	W	W	W	0	W	15.8
2861	*Gum and Wood Chemicals*	19	0	0	0	W	W	W	15	7.9
2865	*Cyclic Crudes and Intermediates*	62	0	W	3	W	W	0	W	30.2
2869	*Industrial Organic Chemicals, nec.*	1,326	0	W	224	282,106	W	W	W	15.4
2873	*Nitrogenous Fertilizers*	340	0	1	329	0	0	0	1	19.8
2874	*Phosphatic Fertilizers*	28	W	W	W	0	0	0	W	8.2
2895	*Carbon Black*	W	W	*	2	0	0	0	0	13.6
29	Petroleum and Coal Products	3,168	0	Q	W	W	0	0	3,167	33.0
2911	*Petroleum Refining*[e]	3,110	0	0	0	0	0	0	3,110	0.0
30	Rubber and Misc. Plastics Products	2	0	Q	*	W	W	0	1	28.5
3011	*Tires and Inner Tubes*	*	0	0	0	0	0	0	*	9.5
308	*Miscellaneous Plastics Products, nec.*	1	0	W	W	W	0	0	1	32.8
31	Leather and Leather Products	W	0	*	*	0	0	0	W	50.7
32	Stone, Clay and Glass Products	2	0	53	1	W	W	W	1	26.0
3211	*Flat Glass*	*	0	0	0	0	0	0	*	19.1
3221	*Glass Containers*	*	0	0	0	0	0	0	*	28.6
3229	*Pressed and Blown Glass, nec.*	*	0	*	*	*	0	0	*	32.0
3241	*Cement, Hydraulic*	*	0	36	*	*	0	0	*	27.0
3274	*Lime*	*	0	0	*	*	0	0	*	47.0
3296	*Mineral Wool*	W	0	W	0	W	0	0	*	21.3
33	Primary Metal Industries	955	W	64	9	W	32,561	578	62	13.6
331	*Blast Furnace and Basic Steel Products*	902	0	64	8	*	32,440	363	19	16.1
3312	*Blast Furnaces and Steel Mills*	886	0	63	8	*	32,011	318	14	15.2
3313	*Electrometallurgical Products*	15	0	*	0	*	428	Q	Q	50.4
3321	*Gray and Ductile Iron Foundries*	2	0	*	*	*	31	W	W	29.3
3331	*Primary Copper*	*	0	0	0	W	0	0	W	1.1
3334	*Primary Aluminum*	40	0	0	0	W	8	W	W	1.1
3339	*Primary Nonferrous Metals, nec.*	7	*	0	0	0	75	W	W	22.5
3353	*Aluminum Sheet, Plate, and Foil*	W	0	0	0	0	0	0	W	9.5

See footnotes at end of table.

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Industry Group and Selected Industries, 1994: Part 2 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.8	1.1	1.1	1.2	1.1	1.0	1.0	0.9	
34	Fabricated Metal Products	1	W	W	*	W	W	0	W	23.5
35	Industrial Machinery and Equipment	1	0	26	1	22	0	0	*	27.4
357	*Computer and Office Equipment*	*	0	0	0	0	0	0	*	0.0
36	Electronic and Other Electric Equipment	13	0	W	1	W	0	W	11	29.3
37	Transportation Equipment	5	0	Q	3	W	*	W	1	38.0
3711	*Motor Vehicles and Car Bodies*	Q	0	W	W	W	0	0	*	40.3
3714	*Motor Vehicle Parts and Accessories*	2	0	W	1	W	*	W	*	36.3
38	Instruments and Related Products	Q	0	W	*	Q	0	0	W	42.7
3841	*Surgical and Medical Instruments*	*	0	0	W	0	0	0	W	40.7
39	Misc. Manufacturing Industries	W	0	0	*	W	0	0	W	34.0
	Total	6,717	8,042	1,175	673	435,099	34,206	958	3,505	9.3

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[d] "Other" includes energy that respondents indicated was used as feedstock/raw material inputs. See also Footnote "e".
[e] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.

NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Census Region and Industry Group, 1994: Part 3

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
		Total United States								
	RSE Column Factors:	0.7	1.2	1.1	1.2	1.0	1.2	0.9	0.8	
20	Food and Kindred Products	10	0	*	2	W	0	W	8	23.1
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	*	W	W	0	0	*	45.3
23	Apparel and Other Textile Products	W	0	0	W	0	0	0	*	45.4
24	Lumber and Wood Products	57	W	3	*	W	0	0	53	34.3
25	Furniture and Fixtures	Q	0	*	*	*	0	0	Q	0.0
26	Paper and Allied Products	33	0	*	W	W	*	0	32	16.7
27	Printing and Publishing	W	0	W	*	0	0	0	W	35.3
28	Chemicals and Allied Products	2,463	50	W	674	1,531	37	W	162	10.9
29	Petroleum and Coal Products*	3,168	0	Q	W	W	0	0	3,167	35.9
30	Rubber and Misc. Plastics Products	2	0	*	*	W	W	0	1	30.4
31	Leather and Leather Products	W	0	*	*	0	0	0	W	55.5
32	Stone, Clay and Glass Products	2	0	*	1	W	W	W	1	26.2
33	Primary Metal Industries	955	W	*	9	W	870	13	62	13.6
34	Fabricated Metal Products	1	W	W	1	W	W	0	W	25.1
35	Industrial Machinery and Equipment	1	0	*	1	*	0	0	*	28.6
36	Electronic and Other Electric Equipment	13	0	W	1	W	0	W	11	30.9
37	Transportation Equipment	5	0	*	3	W	*	W	1	38.8
38	Instruments and Related Products	Q	0	W	*	*	0	0	W	42.5
39	Misc. Manufacturing Industries	W	0	0	*	W	0	0	W	34.5
	Total	6,717	51	7	693	1,532	907	22	3,505	9.3
		Northeast Census Region								
	RSE Column Factors:	0.9	0.0	1.2	1.2	1.1	0.8	1.1	0.9	
20	Food and Kindred Products	W	0	0	*	*	0	0	W	45.7
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	*	0	0	0	W	0	0	W	34.4
23	Apparel and Other Textile Products	W	0	0	W	0	0	0	W	0.0
24	Lumber and Wood Products	W	0	W	0	*	0	0	W	32.8
25	Furniture and Fixtures	W	0	0	0	0	0	0	W	51.9
26	Paper and Allied Products	W	0	W	W	W	0	0	W	20.9
27	Printing and Publishing	W	0	W	*	0	0	0	W	36.9
28	Chemicals and Allied Products	18	0	W	*	16	W	0	1	19.5
29	Petroleum and Coal Products*	282	0	W	0	W	0	0	282	40.4
30	Rubber and Misc. Plastics Products	W	0	W	W	W	0	0	*	0.0
31	Leather and Leather Products	W	0	*	*	0	0	0	W	0.0
32	Stone, Clay and Glass Products	*	0	W	W	0	0	0	W	37.0
33	Primary Metal Industries	344	0	W	*	W	W	W	W	22.8
34	Fabricated Metal Products	W	W	0	W	W	0	0	W	39.4
35	Industrial Machinery and Equipment	*	0	*	W	W	0	0	W	40.7
36	Electronic and Other Electric Equipment	1	0	W	W	W	0	W	W	37.6
37	Transportation Equipment	*	0	W	*	W	0	0	W	41.7
38	Instruments and Related Products	*	0	0	W	*	0	0	W	37.2
39	Misc. Manufacturing Industries	W	0	0	*	W	0	0	W	40.2
	Total	659	W	W	1	16	328	5	307	19.3

See footnotes at end of table.

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
		Midwest Census Region								
	RSE Column Factors:	0.7	1.6	1.2	0.9	1.3	0.8	1.0	0.8	
20	Food and Kindred Products	W	0	W	1	W	0	W	W	11.9
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	*	0	W	0	W	0	0	W	0.0
23	Apparel and Other Textile Products	0	0	0	0	0	0	0	0	0.0
24	Lumber and Wood Products	W	W	W	0	W	0	0	W	33.5
25	Furniture and Fixtures	Q	0	W	*	*	0	0	W	0.0
26	Paper and Allied Products	2	0	W	0	W	*	0	W	18.5
27	Printing and Publishing	W	0	0	W	0	0	0	*	38.0
28	Chemicals and Allied Products	154	W	W	77	51	W	W	23	17.6
29	Petroleum and Coal Products[e]	545	0	W	0	*	0	0	W	32.9
30	Rubber and Misc. Plastics Products	1	0	*	W	W	W	0	W	32.3
31	Leather and Leather Products	*	0	0	0	0	0	0	*	48.9
32	Stone, Clay and Glass Products	W	0	W	W	W	0	0	*	32.0
33	Primary Metal Industries	351	0	W	W	W	319	W	26	18.6
34	Fabricated Metal Products	*	0	W	W	W	W	0	W	35.2
35	Industrial Machinery and Equipment	1	0	*	*	*	0	0	*	36.4
36	Electronic and Other Electric Equipment	1	0	W	1	W	0	0	*	47.0
37	Transportation Equipment	3	0	W	3	W	0	0	1	49.2
38	Instruments and Related Products	Q	0	W	W	*	0	0	W	39.8
39	Misc. Manufacturing Industries	*	0	0	W	W	0	0	*	0.0
	Total	1,080	3	2	85	51	320	4	617	16.5
		South Census Region								
	RSE Column Factors:	0.8	1.1	1.2	1.1	0.9	1.1	1.1	0.8	
20	Food and Kindred Products	6	0	W	1	W	0	0	W	25.8
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	W	W	W	0	0	W	53.2
23	Apparel and Other Textile Products	*	0	0	W	0	0	0	W	50.4
24	Lumber and Wood Products	23	0	W	*	W	0	0	W	43.9
25	Furniture and Fixtures	*	0	W	0	0	0	0	W	43.2
26	Paper and Allied Products	W	0	W	W	W	0	0	W	24.4
27	Printing and Publishing	W	0	0	0	0	0	0	W	54.1
28	Chemicals and Allied Products	2,236	W	W	558	1,464	W	4	127	11.3
29	Petroleum and Coal Products[e]	1,969	0	*	0	*	0	0	1,969	43.8
30	Rubber and Misc. Plastics Products	W	0	*	*	*	0	0	W	40.6
31	Leather and Leather Products	W	0	0	0	0	0	0	W	0.0
32	Stone, Clay and Glass Products	W	0	W	*	*	W	W	W	31.5
33	Primary Metal Industries	212	W	*	7	W	W	4	W	20.3
34	Fabricated Metal Products	W	0	*	W	*	0	0	W	28.8
35	Industrial Machinery and Equipment	*	0	*	W	*	0	0	W	32.2
36	Electronic and Other Electric Equipment	10	0	W	*	W	0	W	W	38.2
37	Transportation Equipment	1	0	*	*	*	*	W	W	38.1
38	Instruments and Related Products	*	0	0	W	*	0	0	W	48.3
39	Misc. Manufacturing Industries	W	0	0	*	W	0	0	W	42.3
	Total	4,464	W	W	567	1,465	224	9	2,148	11.4

See footnotes at end of table.

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
		West Census Region								
	RSE Column Factors:	0.7	1.9	0.8	1.1	0.6	1.4	1.4	0.7	
20	Food and Kindred Products	*	0	*	*	*	0	0	*	33.5
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	0	0	0	0	0	W	0.0
23	Apparel and Other Textile Products	0	0	0	0	0	0	0	0	0.0
24	Lumber and Wood Products	12	W	W	0	*	0	0	11	28.0
25	Furniture and Fixtures	W	0	0	0	0	0	0	W	0.0
26	Paper and Allied Products	25	0	W	0	W	0	0	W	20.7
27	Printing and Publishing	W	0	W	W	0	0	0	W	51.3
28	Chemicals and Allied Products	55	W	W	39	0	W	W	11	17.9
29	Petroleum and Coal Products[e]	373	0	W	W	W	0	0	W	55.4
30	Rubber and Misc. Plastics Products	*	0	W	W	W	0	0	*	60.8
31	Leather and Leather Products	0	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	*	0	*	*	*	0	0	*	52.2
33	Primary Metal Industries	48	W	0	W	W	W	W	13	8.5
34	Fabricated Metal Products	*	0	0	W	*	0	0	W	0.0
35	Industrial Machinery and Equipment	*	0	*	W	W	0	0	*	39.0
36	Electronic and Other Electric Equipment	*	0	*	W	*	0	0	W	33.9
37	Transportation Equipment	*	0	*	*	*	0	0	*	47.5
38	Instruments and Related Products	*	0	0	*	*	0	0	*	49.4
39	Misc. Manufacturing Industries	W	0	0	W	*	0	0	*	59.3
	Total	514	W	W	40	*	35	5	433	19.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[d] "Other" includes energy that respondents indicated was used as feedstock/raw material inputs. See also Footnote "e".

[e] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Industry Group and Selected Industries, 1994: Part 4

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
	RSE Column Factors:	0.8	1.1	1.1	1.2	1.1	1.0	1.0	0.9	
20	Food and Kindred Products	10	0	*	2	W	0	W	8	22.2
2011	*Meat Packing Plants*	*	0	0	W	0	0	0	W	28.5
2033	*Canned Fruits and Vegetables*	*	0	*	0	*	0	0	*	39.6
2037	*Frozen Fruits and Vegetables*	W	0	0	W	W	0	0	*	29.8
2046	*Wet Corn Milling*	*	0	0	0	0	0	0	*	41.7
2051	*Bread, Cake, and Related Products*	*	0	0	0	0	0	0	*	35.7
2061	*Cane Sugar, Except Refining*	6	0	0	W	0	0	0	W	24.1
2062	*Cane Sugar Refining*	0	0	0	0	0	0	0	0	0.0
2063	*Beet Sugar*	W	0	0	0	0	0	W	*	11.4
2075	*Soybean Oil Mills*	W	0	W	1	W	0	0	W	2.2
2082	*Malt Beverages*	*	0	0	0	0	0	0	*	0.0
21	Tobacco Products	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	*	W	W	0	0	*	42.9
23	Apparel and Other Textile Products	W	0	0	W	0	0	0	*	41.5
24	Lumber and Wood Products	57	W	3	*	W	0	0	53	32.8
2421	*Sawmills and Planing Mills, General*	3	0	*	0	0	0	0	3	40.6
2436	*Softwood Veneer and Plywood*	Q	0	W	0	W	0	0	Q	0.0
2493	*Reconstituted Wood Products*	27	W	W	0	W	0	0	27	21.4
25	Furniture and Fixtures	Q	0	*	*	*	0	0	Q	0.0
2511	*Wood Furniture, Except Upholstered*	*	0	*	0	0	0	0	*	33.4
26	Paper and Allied Products	33	0	*	W	W	*	0	32	16.6
2611	*Pulp Mills*	W	0	W	0	W	0	0	W	31.1
2621	*Paper Mills*	5	0	W	W	W	*	0	W	25.7
2631	*Paperboard Mills*	25	0	W	*	W	0	0	25	11.6
27	Printing and Publishing	W	0	W	*	0	0	0	W	33.6
28	Chemicals and Allied Products	2,463	50	W	674	1,531	37	W	162	10.8
2812	*Alkalies and Chlorine*	9	0	*	*	W	0	0	W	10.8
2813	*Industrial Gases*	7	0	0	5	0	W	W	1	42.3
2816	*Inorganic Pigments*	11	W	0	W	W	W	W	W	15.1
2819	*Industrial Inorganic Chemicals, nec.*	40	W	W	8	W	W	W	W	25.1
2821	*Plastics Materials and Resins*	W	0	W	W	317	0	0	4	13.8
2822	*Synthetic Rubber*	39	0	W	13	25	0	0	W	36.3
2823	*Cellulosic Manmade Fibers*	W	0	0	0	0	0	0	W	1.2
2824	*Organic Fibers, Noncellulosic*	W	0	0	W	W	W	0	W	15.8
2861	*Gum and Wood Chemicals*	19	0	0	0	W	W	W	15	7.9
2865	*Cyclic Crudes and Intermediates*	62	0	W	3	W	W	0	W	30.2
2869	*Industrial Organic Chemicals, nec.*	1,326	0	W	231	1,007	W	W	W	15.4
2873	*Nitrogenous Fertilizers*	340	0	*	339	0	0	0	1	19.8
2874	*Phosphatic Fertilizers*	28	W	W	W	0	0	0	W	8.2
2895	*Carbon Black*	W	W	*	2	0	0	0	0	13.6
29	Petroleum and Coal Products	3,168	0	Q	W	W	0	0	3,167	32.9
2911	*Petroleum Refining*[e]	3,110	0	0	0	0	0	0	3,110	0.0
30	Rubber and Misc. Plastics Products	2	0	*	*	W	W	0	1	28.5
3011	*Tires and Inner Tubes*	*	0	0	0	0	0	0	*	9.5
308	*Miscellaneous Plastics Products, nec.*	1	0	W	W	W	0	0	1	32.8
31	Leather and Leather Products	W	0	*	*	0	0	0	W	50.7
32	Stone, Clay and Glass Products	2	0	*	1	W	W	W	1	26.0
3211	*Flat Glass*	*	0	0	0	0	0	0	*	19.1
3221	*Glass Containers*	*	0	0	0	0	0	0	*	28.6
3229	*Pressed and Blown Glass, nec.*	*	0	*	*	*	0	0	*	32.0
3241	*Cement, Hydraulic*	*	0	*	*	*	0	0	*	27.0
3274	*Lime*	*	0	0	*	*	0	0	*	47.0
3296	*Mineral Wool*	W	0	W	0	W	0	0	*	21.3
33	Primary Metal Industries	955	W	*	9	W	870	13	62	13.6
331	*Blast Furnace and Basic Steel Products*	902	0	*	8	*	867	8	19	16.1
3312	*Blast Furnaces and Steel Mills*	886	0	*	8	*	858	7	14	15.0
3313	*Electrometallurgical Products*	15	0	*	0	*	9	Q	Q	50.4
3321	*Gray and Ductile Iron Foundries*	2	0	*	*	*	1	W	W	29.3
3331	*Primary Copper*	*	0	0	0	W	0	0	W	1.1
3334	*Primary Aluminum*	40	0	0	0	W	*	W	W	1.1
3339	*Primary Nonferrous Metals, nec.*	7	*	0	0	0	2	W	W	22.5
3353	*Aluminum Sheet, Plate, and Foil*	W	0	0	0	0	0	0	W	9.5

See footnotes at end of table.

Table A3. Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes by Industry Group and Selected Industries, 1994: Part 4 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
	RSE Column Factors:	0.8	1.1	1.1	1.2	1.1	1.0	1.0	0.9	
34	Fabricated Metal Products	1	W	W	1	W	W	0	W	23.5
35	Industrial Machinery and Equipment	1	0	*	1	*	0	0	*	27.4
357	*Computer and Office Equipment*	*	0	0	0	0	0	0	*	0.0
36	Electronic and Other Electric Equipment	13	0	W	1	W	0	W	11	29.4
37	Transportation Equipment	5	0	*	3	W	*	W	1	38.0
3711	*Motor Vehicles and Car Bodies*	Q	0	W	W	W	0	0	*	40.3
3714	*Motor Vehicle Parts and Accessories*	2	0	W	2	W	*	W	*	36.3
38	Instruments and Related Products	Q	0	W	*	*	0	0	W	42.7
3841	*Surgical and Medical Instruments*	*	0	0	W	0	0	0	W	40.7
39	Misc. Manufacturing Industries	W	0	0	*	W	0	0	W	34.0
	Total	6,717	51	7	693	1,532	907	22	3,505	9.3

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[d] "Other" includes energy that respondents indicated was used as feedstock/raw material inputs. See also Footnote "e".
[e] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.

NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A3. Number of Establishments by Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes, by Industry Group and Selected Industries, 1994: Part 5

SIC Code[a]	Industry Group and Industry	Any Combustible Energy Source[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
	RSE Column Factors:	0.6	1.2	1.3	1.4	1.2	1.0	1.0	0.6	
20	Food and Kindred Products	1,014	0	15	246	39	0	W	780	18.6
2011	*Meat Packing Plants*	41	0	0	W	0	0	0	39	30.0
2033	*Canned Fruits and Vegetables*	45	0	W	0	W	0	0	44	28.6
2037	*Frozen Fruits and Vegetables*	Q	0	0	W	W	0	0	Q	0.0
2046	*Wet Corn Milling*	8	0	0	0	0	0	0	8	20.6
2051	*Bread, Cake, and Related Products*	45	0	0	0	0	0	0	45	42.8
2061	*Cane Sugar, Except Refining*	12	0	0	W	0	0	0	11	15.0
2062	*Cane Sugar Refining*	W	0	0	0	0	0	0	W	61.8
2063	*Beet Sugar*	6	0	0	0	0	0	W	6	7.2
2075	*Soybean Oil Mills*	22	0	W	5	W	0	0	18	1.9
2082	*Malt Beverages*	W	0	0	0	0	0	0	W	27.0
21	Tobacco Products	W	0	0	0	0	0	0	W	39.6
22	Textile Mill Products	339	0	Q	Q	W	0	0	311	34.0
23	Apparel and Other Textile Products	399	0	0	30	0	0	0	369	45.9
24	Lumber and Wood Products	1,009	Q	142	6	190	0	0	718	24.8
2421	*Sawmills and Planing Mills, General*	194	0	Q	0	0	0	0	192	39.6
2436	*Softwood Veneer and Plywood*	29	0	W	0	W	0	0	26	24.1
2493	*Reconstituted Wood Products*	Q	W	W	0	Q	0	0	Q	50.1
25	Furniture and Fixtures	268	0	Q	W	W	0	0	243	32.0
2511	*Wood Furniture, Except Upholstered*	74	0	Q	0	0	0	0	64	40.4
26	Paper and Allied Products	355	0	16	10	31	W	0	326	16.9
2611	*Pulp Mills*	17	0	W	0	W	0	0	17	12.3
2621	*Paper Mills*	85	0	3	W	4	W	0	80	10.7
2631	*Paperboard Mills*	48	0	6	W	5	0	0	45	4.8
27	Printing and Publishing	668	0	6	Q	0	0	0	571	35.1
28	Chemicals and Allied Products	1,222	18	192	233	164	28	20	792	12.4
2812	*Alkalies and Chlorine*	23	0	5	W	3	0	0	21	4.8
2813	*Industrial Gases*	32	0	0	13	0	W	W	22	22.8
2816	*Inorganic Pigments*	20	W	0	3	W	W	3	15	10.4
2819	*Industrial Inorganic Chemicals, nec.*	74	W	3	11	3	4	3	63	21.2
2821	*Plastics Materials and Resins*	147	0	3	12	43	0	0	121	14.2
2822	*Synthetic Rubber*	19	0	W	4	5	0	0	15	18.9
2823	*Cellulosic Manmade Fibers*	7	0	0	0	0	0	0	7	1.6
2824	*Organic Fibers, Noncellulosic*	14	0	0	W	W	W	0	11	8.9
2861	*Gum and Wood Chemicals*	36	0	0	0	W	13	W	36	5.2
2865	*Cyclic Crudes and Intermediates*	71	0	W	7	13	W	0	60	19.4
2869	*Industrial Organic Chemicals, nec.*	209	0	Q	79	49	W	W	135	17.6
2873	*Nitrogenous Fertilizers*	39	0	W	32	0	0	0	11	11.1
2874	*Phosphatic Fertilizers*	13	W	W	W	0	0	0	11	5.6
2895	*Carbon Black*	17	14	W	5	0	0	0	0	7.5
29	Petroleum and Coal Products	233	0	75	3	23	0	0	153	28.9
2911	*Petroleum Refining*[f]	48	0	0	0	0	0	0	48	4.8
30	Rubber and Misc. Plastics Products	915	0	28	103	75	W	0	753	22.7
3011	*Tires and Inner Tubes*	42	0	0	0	0	0	0	42	22.2
308	*Miscellaneous Plastics Products, nec.*	781	0	24	102	69	0	0	624	25.3
31	Leather and Leather Products	W	0	W	W	0	0	0	W	65.0
32	Stone, Clay and Glass Products	1,015	0	107	72	53	W	W	844	31.7
3211	*Flat Glass*	31	0	0	0	0	0	0	31	7.9
3221	*Glass Containers*	W	0	0	0	0	0	0	W	36.5
3229	*Pressed and Blown Glass, nec.*	14	0	3	W	W	0	0	10	51.5
3241	*Cement, Hydraulic*	36	0	11	5	5	0	0	27	19.6
3274	*Lime*	5	0	0	W	W	0	0	4	39.4
3296	*Mineral Wool*	25	0	W	0	W	0	0	18	8.9
33	Primary Metal Industries	809	W	34	Q	28	76	61	657	15.0
331	*Blast Furnace and Basic Steel Products*	205	0	19	8	Q	58	33	157	13.9
3312	*Blast Furnaces and Steel Mills*	95	0	8	6	W	45	28	63	6.8
3313	*Electrometallurgical Products*	18	0	W	0	W	Q	Q	18	36.5
3321	*Gray and Ductile Iron Foundries*	71	0	4	5	5	W	11	59	25.4
3331	*Primary Copper*	5	0	0	0	W	0	0	4	1.3
3334	*Primary Aluminum*	28	0	0	0	W	10	W	28	11.7
3339	*Primary Nonferrous Metals, nec.*	11	W	0	0	0	3	W	9	28.8
3353	*Aluminum Sheet, Plate, and Foil*	16	0	0	0	0	0	0	16	4.8

See footnotes at end of table.

Table A3. Number of Establishments by Total First Use (formerly Primary Consumption) of Combustible Energy for Nonfuel Purposes, by Industry Group and Selected Industries, 1994: Part 5 (Continued)

SIC Code[a]	Industry Group and Industry	Any Combustible Energy Source[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
	RSE Column Factors:	0.6	1.2	1.3	1.4	1.2	1.0	1.0	0.6	
34	Fabricated Metal Products	2,045	W	64	97	101	W	0	1,845	27.5
35	Industrial Machinery and Equipment	3,498	0	40	175	186	0	0	3,388	21.3
357	*Computer and Office Equipment*	4	0	0	0	0	0	0	4	61.8
36	Electronic and Other Electric Equipment	698	0	32	Q	87	0	4	465	26.4
37	Transportation Equipment	938	0	22	246	137	W	W	715	35.3
3711	*Motor Vehicles and Car Bodies*	Q	0	W	W	W	0	0	Q	0.0
3714	*Motor Vehicle Parts and Accessories*	387	0	4	189	122	W	W	221	39.7
38	Instruments and Related Products	552	0	W	Q	36	0	0	354	44.1
3841	*Surgical and Medical Instruments*	4	0	0	W	0	0	0	3	42.3
39	Misc. Manufacturing Industries	666	0	0	Q	300	0	0	314	40.1
	Total	16,698	73	820	2,034	1,484	113	91	13,655	10.5

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Any Combustible Energy Source" represents the non-duplicative total of establishments identified with any of the listed energy sources. This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[e] "Other" includes energy that respondents indicated was used as feedstock/raw material inputs. See also Footnote "f".
[f] For the petroleum refining industry only, the feedstocks and raw material inputs for the production of nonenergy products (i.e., asphalt, waxes, lubricants, and solvents) and feedstock consumption at adjoining petrochemical plants are included in the "Other" column, regardless of type of energy. Those inputs and feedstocks that were converted to other energy products (e.g., crude oil converted to residual and distillate fuel oils) are excluded. See Appendix B for more information.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table are for the first use (formerly primary consumption) of energy as feedstocks or raw material inputs. First use (formerly primary consumption) is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use (formerly primary consumption) excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
		Total United States									
	RSE Column Factors:	0.5	0.5	1.3	1.3	0.5	1.2	1.5	2.3	1.1	
20	Food and Kindred Products	1,183	58,004	4,785	3,180	611	1,707	7,500	94	134	5.5
21	Tobacco Products	W	842	133	W	W	W	W	0	W	25.0
22	Textile Mill Products	310	32,614	2,680	W	113	W	1,821	0	14	12.8
23	Apparel and Other Textile Products	56	7,735	W	106	24	W	W	0	W	21.0
24	Lumber and Wood Products	435	19,836	W	3,793	47	W	W	0	290	8.8
25	Furniture and Fixtures	65	6,590	60	153	23	211	115	0	14	11.4
26	Paper and Allied Products	2,634	65,479	27,444	1,560	558	1,315	13,812	0	1,343	3.6
27	Printing and Publishing	112	17,409	W	261	46	W	0	0	2	10.6
28	Chemicals and Allied Products	3,273	152,482	9,567	2,201	1,840	W	11,597	W	521	6.1
29	Petroleum and Coal Products	3,263	35,440	11,378	3,652	W	11,719	W	W	2,181	6.7
30	Rubber and Misc. Plastics Products	286	43,749	1,600	540	107	824	219	0	6	7.7
31	Leather and Leather Products	W	828	250	W	W	W	0	0	*	22.1
32	Stone, Clay and Glass Products	945	36,018	1,187	3,917	419	1,057	12,423	319	75	7.2
33	Primary Metal Industries	2,568	144,466	6,870	2,126	778	1,472	2,327	27,854	475	6.6
34	Fabricated Metal Products	365	33,819	478	747	213	1,334	W	W	W	12.8
35	Industrial Machinery and Equipment	245	32,037	W	672	107	885	484	W	5	9.3
36	Electronic and Other Electric Equipment	230	33,148	415	290	84	622	W	W	W	12.6
37	Transportation Equipment	358	38,773	1,781	1,123	150	W	1,245	W	22	10.2
38	Instruments and Related Products	106	13,490	589	238	W	W	1,065	0	W	16.3
39	Misc. Manufacturing Industries	51	5,575	142	209	19	W	37	0	W	21.6
	Total	16,515	778,335	70,111	26,107	5,962	25,949	54,143	28,488	5,126	2.8
		Northeast Census Region									
	RSE Column Factors:	0.6	0.5	0.9	1.0	0.6	1.3	1.8	2.3	1.2	
20	Food and Kindred Products	93	6,215	1,496	W	49	W	W	0	4	13.8
21	Tobacco Products	W	20	W	W	W	W	0	0	W	37.7
22	Textile Mill Products	32	1,666	1,055	W	13	234	W	0	3	16.3
23	Apparel and Other Textile Products	W	2,035	W	W	5	W	0	0	W	44.7
24	Lumber and Wood Products	22	1,198	W	247	3	W	0	0	12	26.5
25	Furniture and Fixtures	5	421	Q	77	2	20	0	0	1	26.0
26	Paper and Allied Products	305	9,397	11,849	414	46	440	1,965	0	102	7.7
27	Printing and Publishing	21	3,156	W	137	8	W	0	0	W	18.4
28	Chemicals and Allied Products	146	11,230	3,381	750	57	W	W	0	17	9.9
29	Petroleum and Coal Products	221	2,990	2,223	1,325	39	W	W	0	140	11.3
30	Rubber and Misc. Plastics Products	43	6,474	W	220	13	W	64	0	W	14.9
31	Leather and Leather Products	W	243	155	W	W	17	0	0	W	28.6
32	Stone, Clay and Glass Products	128	5,271	W	891	65	221	1,500	W	W	13.3
33	Primary Metal Industries	317	17,781	W	W	103	495	W	W	89	14.7
34	Fabricated Metal Products	56	5,072	303	409	31	265	W	W	1	16.5
35	Industrial Machinery and Equipment	36	4,525	190	251	15	168	0	0	2	15.0
36	Electronic and Other Electric Equipment	69	7,358	W	162	21	232	W	W	W	23.2
37	Transportation Equipment	41	3,524	992	272	13	W	W	0	2	16.5
38	Instruments and Related Products	52	3,757	554	202	W	W	1,065	0	W	20.1
39	Misc. Manufacturing Industries	21	1,673	115	104	6	W	W	0	W	26.3
	Total	1,625	94,006	24,368	7,116	502	4,663	5,775	1,753	403	5.3

See footnotes at end of table.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
		Midwest Census Region									
	RSE Column Factors:	0.5	0.5	1.7	1.3	0.6	1.3	1.3	1.4	1.3	
20	Food and Kindred Products	489	23,442	1,176	W	257	W	5,491	47	12	8.4
21	Tobacco Products	W	W	0	W	W	0	0	0	W	50.3
22	Textile Mill Products	6	W	0	W	4	W	0	0	W	28.3
23	Apparel and Other Textile Products	7	785	0	W	4	W	0	0	W	30.5
24	Lumber and Wood Products	50	2,975	W	281	12	269	W	0	22	16.0
25	Furniture and Fixtures	23	2,151	4	10	12	65	57	0	2	19.1
26	Paper and Allied Products	358	15,397	810	164	113	W	W	0	95	6.5
27	Printing and Publishing	42	5,975	*	W	19	W	0	0	1	14.2
28	Chemicals and Allied Products	444	40,332	W	W	195	255	2,561	0	44	10.3
29	Petroleum and Coal Products	512	7,528	3,739	W	85	W	W	0	367	9.1
30	Rubber and Misc. Plastics Products	111	16,256	W	W	48	224	W	0	W	13.4
31	Leather and Leather Products	W	W	W	W	W	W	0	0	W	30.8
32	Stone, Clay and Glass Products	263	9,722	W	969	114	W	3,050	W	36	14.7
33	Primary Metal Industries	1,398	50,730	4,833	W	W	W	1,511	19,171	261	9.6
34	Fabricated Metal Products	198	17,128	W	101	126	W	213	W	1	18.1
35	Industrial Machinery and Equipment	129	14,850	176	299	60	390	484	0	2	13.6
36	Electronic and Other Electric Equipment	62	8,569	W	W	29	W	W	0	2	17.0
37	Transportation Equipment	179	17,542	W	433	81	372	959	W	7	16.3
38	Instruments and Related Products	17	2,476	W	3	W	W	0	0	W	21.2
39	Misc. Manufacturing Industries	10	966	0	W	W	W	W	0	W	35.2
	Total	4,303	237,676	11,969	4,034	1,587	5,103	18,418	19,387	855	5.0
		South Census Region									
	RSE Column Factors:	0.5	0.5	1.6	1.4	0.5	1.2	1.4	2.1	1.1	
20	Food and Kindred Products	356	19,282	1,495	W	158	690	W	W	94	9.0
21	Tobacco Products	19	W	W	W	3	W	W	0	W	25.4
22	Textile Mill Products	267	30,046	1,625	963	93	W	W	0	11	15.5
23	Apparel and Other Textile Products	31	4,262	W	W	13	W	W	0	W	21.7
24	Lumber and Wood Products	219	9,387	W	1,657	17	366	W	0	157	12.2
25	Furniture and Fixtures	32	3,354	49	66	8	107	58	0	11	14.0
26	Paper and Allied Products	1,629	28,425	12,971	893	285	460	7,443	0	986	4.9
27	Printing and Publishing	36	6,096	W	W	13	103	0	0	1	18.5
28	Chemicals and Allied Products	2,512	87,941	5,854	1,162	1,503	681	7,687	0	448	7.4
29	Petroleum and Coal Products	1,801	17,958	2,910	889	537	W	W	W	1,158	9.8
30	Rubber and Misc. Plastics Products	113	17,270	835	279	40	311	73	0	3	9.5
31	Leather and Leather Products	1	W	W	W	*	W	0	0	W	40.0
32	Stone, Clay and Glass Products	381	14,618	W	1,136	177	W	4,957	W	26	11.1
33	Primary Metal Industries	636	47,575	W	651	195	W	W	5,999	105	10.5
34	Fabricated Metal Products	73	8,293	W	195	40	296	W	0	W	15.5
35	Industrial Machinery and Equipment	58	8,813	W	96	24	W	0	W	W	14.4
36	Electronic and Other Electric Equipment	70	11,194	54	95	26	200	67	0	2	16.7
37	Transportation Equipment	88	11,221	W	272	35	W	W	0	7	15.7
38	Instruments and Related Products	20	4,049	W	W	5	W	0	0	W	26.0
39	Misc. Manufacturing Industries	14	1,959	27	W	5	W	0	0	W	30.2
	Total	8,357	332,754	28,003	9,464	3,176	7,032	23,986	6,156	3,012	3.9

See footnotes at end of table.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
		West Census Region									
	RSE Column Factors:	0.5	0.5	1.4	1.3	0.6	1.2	1.3	1.8	1.2	
20	Food and Kindred Products	245	9,065	618	1,193	148	W	1,146	W	23	8.7
21	Tobacco Products	0	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	5	W	0	0	3	W	0	0	W	29.3
23	Apparel and Other Textile Products	W	654	0	0	2	W	0	0	*	34.8
24	Lumber and Wood Products	144	6,276	W	1,608	14	W	0	0	98	13.4
25	Furniture and Fixtures	4	664	0	*	2	20	0	0	*	28.7
26	Paper and Allied Products	342	12,260	1,814	89	113	W	W	0	160	8.1
27	Printing and Publishing	13	2,182	0	W	5	W	0	0	W	19.6
28	Chemicals and Allied Products	171	12,979	W	W	84	W	W	W	11	15.4
29	Petroleum and Coal Products	728	6,963	2,506	W	W	W	W	0	516	9.0
30	Rubber and Misc. Plastics Products	20	3,749	W	W	6	W	W	0	W	21.1
31	Leather and Leather Products	W	W	0	0	W	Q	0	0	W	67.8
32	Stone, Clay and Glass Products	173	6,407	W	921	63	W	2,916	W	W	13.7
33	Primary Metal Industries	217	28,379	189	W	W	W	W	W	20	9.4
34	Fabricated Metal Products	39	3,326	0	41	17	W	0	W	W	21.3
35	Industrial Machinery and Equipment	21	3,849	0	27	7	W	0	0	W	20.5
36	Electronic and Other Electric Equipment	29	6,027	0	W	8	W	0	0	W	18.6
37	Transportation Equipment	51	6,487	W	146	21	W	0	0	6	20.0
38	Instruments and Related Products	17	3,208	0	W	5	W	0	0	*	18.4
39	Misc. Manufacturing Industries	5	978	0	W	W	W	0	0	W	39.6
	Total	2,230	113,899	5,772	5,493	698	9,151	5,965	1,192	856	5.2

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[c] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • During manufacturing processes, it is possible that the thermal energy content of an energy input is not completely consumed for the production of heat, power, or electricity generation. Hence, residuals of that input may remain. Those residual leftovers may be subsequently consumed for fuel purposes, whether onsite or offsite at another manufacturing establishment (for example, blast furnace gas as a byproduct recovered from coke and other inputs that were not completely consumed). In such cases, double counting of inputs cannot be avoided, and the "Total Inputs" estimates will be inflated.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.6	0.6	1.3	1.2	0.7	1.2	1.4	1.8	1.1	
20	Food and Kindred Products	1,183	58,004	4,785	3,180	611	1,707	7,500	94	134	5.5
2011	*Meat Packing Plants*	53	3,924	138	101	35	W	W	0	2	15.2
2033	*Canned Fruits and Vegetables*	51	1,432	241	119	42	W	W	0	*	14.9
2037	*Frozen Fruits and Vegetables*	42	2,901	204	62	27	74	0	0	2	17.2
2046	*Wet Corn Milling*	173	5,662	169	10	67	9	3,556	6	5	19.1
2051	*Bread, Cake, and Related Products*	37	2,436	Q	131	26	89	0	0	*	20.8
2061	*Cane Sugar, Except Refining*	105	W	W	220	2	W	W	0	99	18.1
2062	*Cane Sugar Refining*	23	125	313	97	16	4	0	0	4	28.2
2063	*Beet Sugar*	64	425	270	W	18	W	1,790	88	*	3.2
2075	*Soybean Oil Mills*	56	1,845	147	W	29	W	682	0	3	1.3
2082	*Malt Beverages*	51	2,311	W	21	21	W	789	0	*	7.7
21	Tobacco Products	W	842	133	W	W	W	W	0	W	24.1
22	Textile Mill Products	310	32,614	2,680	W	113	W	1,821	0	14	12.3
23	Apparel and Other Textile Products	56	7,735	W	106	24	W	W	0	W	19.9
24	Lumber and Wood Products	435	19,836	W	3,793	47	W	W	0	290	8.5
2421	*Sawmills and Planing Mills, General*	198	6,556	W	1,206	11	W	0	0	157	13.6
2436	*Softwood Veneer and Plywood*	73	2,517	Q	251	3	168	0	0	60	14.6
2493	*Reconstituted Wood Products*	71	4,453	W	W	17	W	W	0	33	13.5
25	Furniture and Fixtures	65	6,590	60	153	23	211	115	0	14	11.0
2511	*Wood Furniture, Except Upholstered*	24	2,146	47	62	2	59	56	0	12	14.7
26	Paper and Allied Products	2,634	65,479	27,444	1,560	558	1,315	13,812	0	1,343	3.5
2611	*Pulp Mills*	251	2,190	3,583	W	21	W	328	0	190	12.7
2621	*Paper Mills*	1,292	34,419	14,942	744	263	465	8,783	0	609	5.2
2631	*Paperboard Mills*	930	13,512	7,914	W	194	W	4,552	0	531	2.8
27	Printing and Publishing	112	17,409	W	261	46	W	0	0	2	10.1
28	Chemicals and Allied Products	3,273	152,482	9,567	2,201	1,840	W	11,597	W	521	6.1
2812	*Alkalies and Chlorine*	129	13,424	W	51	52	1	W	0	W	7.8
2813	*Industrial Gases*	99	23,525	0	W	18	W	0	0	*	24.1
2816	*Inorganic Pigments*	40	2,393	W	W	W	W	W	0	W	10.3
2819	*Industrial Inorganic Chemicals, nec.*	344	42,239	588	W	W	W	1,451	W	18	11.4
2821	*Plastics Materials and Resins*	319	16,408	542	186	W	W	875	0	50	9.1
2822	*Synthetic Rubber*	63	2,276	W	15	41	W	W	0	9	22.1
2823	*Cellulosic Manmade Fibers*	28	419	0	23	W	W	W	0	W	1.1
2824	*Organic Fibers, Noncellulosic*	114	7,093	1,435	88	W	W	1,577	0	W	7.6
2861	*Gum and Wood Chemicals*	10	211	*	W	4	W	0	0	5	8.5
2865	*Cyclic Crudes and Intermediates*	155	4,789	W	204	95	279	W	0	25	19.1
2869	*Industrial Organic Chemicals, nec.*	1,370	18,786	795	317	813	265	4,178	0	369	9.4
2873	*Nitrogenous Fertilizers*	286	3,817	0	29	260	4	0	0	5	13.3
2874	*Phosphatic Fertilizers*	18	1,131	W	117	W	3	W	0	W	6.3
2895	*Carbon Black*	30	W	W	W	17	W	0	0	W	16.1
29	Petroleum and Coal Products	3,263	35,440	11,378	3,652	W	11,719	W	W	2,181	6.7
2911	*Petroleum Refining*	3,153	33,335	10,891	1,159	734	W	W	0	2,161	5.2
30	Rubber and Misc. Plastics Products	286	43,749	1,600	540	107	824	219	0	6	7.4
3011	*Tires and Inner Tubes*	48	4,664	720	115	22	95	81	0	2	9.5
308	*Miscellaneous Plastics Products, nec.*	192	33,961	497	262	62	632	82	0	4	11.0
31	Leather and Leather Products	W	828	250	W	W	W	0	0	*	20.9
32	Stone, Clay and Glass Products	945	36,018	1,187	3,917	419	1,057	12,423	319	75	7.2
3211	*Flat Glass*	52	1,468	244	11	44	20	0	0	*	20.3
3221	*Glass Containers*	83	4,268	336	75	64	98	0	0	*	7.9
3229	*Pressed and Blown Glass, nec.*	63	3,233	W	57	49	W	0	0	*	10.7
3241	*Cement, Hydraulic*	329	10,784	158	820	24	9	9,174	150	55	11.9
3274	*Lime*	96	1,151	105	251	12	5	2,980	82	9	19.5
3296	*Mineral Wool*	51	3,401	W	9	36	W	0	86	*	14.6
33	Primary Metal Industries	2,568	144,466	6,870	2,126	778	1,472	2,327	27,854	475	6.6
331	*Blast Furnace and Basic Steel Products*	1,907	53,269	6,680	W	503	W	1,771	26,503	466	9.2
3312	*Blast Furnaces and Steel Mills*	1,824	43,520	6,659	W	462	W	1,598	26,503	464	7.6
3313	*Electrometallurgical Products*	23	4,796	0	21	2	5	Q	0	Q	40.1
3321	*Gray and Ductile Iron Foundries*	92	8,820	Q	113	32	141	5	1,119	1	12.1
3331	*Primary Copper*	32	1,581	W	W	21	W	W	0	W	1.1
3334	*Primary Aluminum*	201	53,552	W	125	16	W	0	0	W	1.6
3339	*Primary Nonferrous Metals, nec.*	38	4,151	W	W	12	17	361	126	1	15.0
3353	*Aluminum Sheet, Plate, and Foil*	73	4,835	0	W	51	54	W	0	W	6.6

See footnotes at end of table.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 2 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.6	0.6	1.3	1.2	0.7	1.2	1.4	1.8	1.1	
34	Fabricated Metal Products	365	33,819	478	747	213	1,334	W	W	W	12.8
35	Industrial Machinery and Equipment	245	32,037	W	672	107	885	484	W	5	8.9
357	*Computer and Office Equipment*	20	4,179	W	23	5	W	0	0	*	27.3
36	Electronic and Other Electric Equipment	230	33,148	415	290	84	622	W	W	W	12.6
37	Transportation Equipment	358	38,773	1,781	1,123	150	W	1,245	W	22	10.2
3711	*Motor Vehicles and Car Bodies*	105	8,845	300	81	51	88	571	0	8	20.8
3714	*Motor Vehicle Parts and Accessories*	117	13,417	W	166	53	W	444	W	3	17.4
38	Instruments and Related Products	106	13,490	589	238	W	W	1,065	0	W	15.8
3841	*Surgical and Medical Instruments*	7	1,347	16	13	2	30	0	0	*	22.8
39	Misc. Manufacturing Industries	51	5,575	142	209	19	W	37	0	W	20.8
	Total	16,515	778,335	70,111	26,107	5,962	25,949	54,143	28,488	5,126	2.8

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[c] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • During manufacturing processes, it is possible that the thermal energy content of an energy input is not completely consumed for the production of heat, power, or electricity generation. Hence, residuals of that input may remain. Those residual leftovers may be subsequently consumed for fuel purposes, whether onsite or offsite at another manufacturing establishment (for example, blast furnace gas as a byproduct recovered from coke and other inputs that were not completely consumed). In such cases, double counting of inputs cannot be avoided, and the "Total Inputs" estimates will be inflated.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 3

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
		Total United States									
	RSE Column Factors:	0.5	0.5	1.3	1.3	0.5	1.2	1.5	2.3	1.1	
20	Food and Kindred Products	1,183	198	30	19	630	6	165	2	134	5.5
21	Tobacco Products	W	3	1	W	W	W	W	0	W	25.0
22	Textile Mill Products	310	111	17	W	117	W	40	0	14	12.8
23	Apparel and Other Textile Products	56	26	W	1	25	W	W	0	W	21.0
24	Lumber and Wood Products	435	68	W	22	48	W	W	0	290	8.8
25	Furniture and Fixtures	65	22	*	1	23	1	3	0	14	11.4
26	Paper and Allied Products	2,634	223	173	9	574	5	307	0	1,343	3.6
27	Printing and Publishing	112	59	W	2	47	W	0	0	2	10.6
28	Chemicals and Allied Products	3,273	520	60	13	1,895	W	257	W	521	6.1
29	Petroleum and Coal Products	3,263	121	72	21	W	47	W	W	2,181	6.8
30	Rubber and Misc. Plastics Products	286	149	10	3	110	3	5	0	6	7.7
31	Leather and Leather Products	W	3	2	W	W	W	0	0	*	22.1
32	Stone, Clay and Glass Products	945	123	7	23	431	4	274	8	75	7.2
33	Primary Metal Industries	2,568	493	43	12	801	5	52	687	475	6.6
34	Fabricated Metal Products	365	115	3	4	220	5	W	W	W	12.8
35	Industrial Machinery and Equipment	245	109	W	4	110	3	11	W	5	9.3
36	Electronic and Other Electric Equipment	230	113	3	2	87	2	W	W	W	12.6
37	Transportation Equipment	358	132	11	7	154	W	28	W	22	10.1
38	Instruments and Related Products	106	46	4	1	W	W	23	0	W	16.3
39	Misc. Manufacturing Industries	51	19	1	1	19	W	1	0	W	21.7
	Total	16,515	2,656	441	152	6,141	99	1,198	703	5,126	2.8
		Northeast Census Region									
	RSE Column Factors:	0.6	0.5	0.9	1.0	0.6	1.3	1.8	2.3	1.2	
20	Food and Kindred Products	93	21	9	W	51	W	W	0	4	13.9
21	Tobacco Products	W	*	W	W	W	W	0	0	W	37.7
22	Textile Mill Products	32	6	7	W	14	1	W	0	3	16.3
23	Apparel and Other Textile Products	W	7	W	W	5	W	0	0	W	44.6
24	Lumber and Wood Products	22	4	W	1	3	W	0	0	12	26.5
25	Furniture and Fixtures	5	1	*	*	2	*	0	0	1	25.9
26	Paper and Allied Products	305	32	74	2	48	2	45	0	102	7.7
27	Printing and Publishing	21	11	W	1	9	W	0	0	W	18.3
28	Chemicals and Allied Products	146	38	21	4	59	W	W	0	17	9.8
29	Petroleum and Coal Products	221	10	14	8	40	W	W	0	140	11.3
30	Rubber and Misc. Plastics Products	43	22	W	1	14	W	1	0	W	14.9
31	Leather and Leather Products	W	1	1	W	W	*	0	0	W	28.6
32	Stone, Clay and Glass Products	128	18	W	5	67	1	33	W	W	13.3
33	Primary Metal Industries	317	61	W	W	106	2	W	W	89	14.7
34	Fabricated Metal Products	56	17	2	2	32	1	W	W	1	16.5
35	Industrial Machinery and Equipment	36	15	1	1	16	1	0	0	2	14.9
36	Electronic and Other Electric Equipment	69	25	W	1	22	1	W	W	W	23.2
37	Transportation Equipment	41	12	6	2	13	W	W	0	2	16.4
38	Instruments and Related Products	52	13	3	1	W	W	23	0	W	20.1
39	Misc. Manufacturing Industries	21	6	1	1	6	W	W	0	W	26.3
	Total	1,625	321	153	41	517	18	130	43	403	5.3

See footnotes at end of table.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
		Midwest Census Region									
	RSE Column Factors:	0.5	0.5	1.7	1.3	0.6	1.3	1.3	1.4	1.3	
20	Food and Kindred Products	489	80	7	W	264	W	121	1	12	8.4
21	Tobacco Products	W	W	0	W	W	0	0	0	W	50.3
22	Textile Mill Products	6	W	0	W	4	W	0	0	W	28.3
23	Apparel and Other Textile Products	7	3	0	W	4	W	0	0	W	30.6
24	Lumber and Wood Products	50	10	W	2	13	1	W	0	22	16.0
25	Furniture and Fixtures	23	7	*	*	12	*	1	0	2	19.2
26	Paper and Allied Products	358	53	5	1	117	W	W	0	95	6.5
27	Printing and Publishing	42	20	*	W	20	W	0	0	1	14.2
28	Chemicals and Allied Products	444	138	W	W	201	1	57	0	44	10.3
29	Petroleum and Coal Products	512	26	24	W	88	W	W	0	367	9.1
30	Rubber and Misc. Plastics Products	111	55	W	W	50	1	W	0	W	13.5
31	Leather and Leather Products	W	W	W	W	W	W	0	0	W	30.8
32	Stone, Clay and Glass Products	263	33	W	6	117	W	67	W	36	14.7
33	Primary Metal Industries	1,398	173	30	W	W	W	33	472	261	9.6
34	Fabricated Metal Products	198	58	W	1	129	W	5	W	1	18.1
35	Industrial Machinery and Equipment	129	51	1	2	62	1	11	0	2	13.6
36	Electronic and Other Electric Equipment	62	29	W	W	30	W	W	0	2	17.0
37	Transportation Equipment	179	60	W	3	84	1	21	W	7	16.3
38	Instruments and Related Products	17	8	W	*	W	W	0	0	W	21.4
39	Misc. Manufacturing Industries	10	3	0	W	W	W	W	0	W	35.3
	Total	4,303	811	75	23	1,635	19	407	478	855	5.0
		South Census Region									
	RSE Column Factors:	0.5	0.5	1.6	1.4	0.5	1.2	1.4	2.1	1.1	
20	Food and Kindred Products	356	66	9	W	162	2	W	W	94	9.0
21	Tobacco Products	19	W	W	W	3	W	W	0	W	25.4
22	Textile Mill Products	267	103	10	6	95	W	W	0	11	15.4
23	Apparel and Other Textile Products	31	15	W	W	13	W	W	0	W	21.6
24	Lumber and Wood Products	219	32	W	10	18	1	W	0	157	12.2
25	Furniture and Fixtures	32	11	*	*	8	*	1	0	11	14.0
26	Paper and Allied Products	1,629	97	82	5	294	2	165	0	986	4.9
27	Printing and Publishing	36	21	W	W	13	*	0	0	1	18.5
28	Chemicals and Allied Products	2,512	300	37	7	1,548	2	170	0	448	7.4
29	Petroleum and Coal Products	1,801	61	18	5	553	W	W	W	1,158	9.8
30	Rubber and Misc. Plastics Products	113	59	5	2	41	1	2	0	3	9.5
31	Leather and Leather Products	1	W	W	W	*	W	0	0	W	40.1
32	Stone, Clay and Glass Products	381	50	W	7	183	W	109	W	26	11.1
33	Primary Metal Industries	636	162	W	4	200	W	W	148	105	10.5
34	Fabricated Metal Products	73	28	W	1	41	1	W	0	W	15.5
35	Industrial Machinery and Equipment	58	30	W	1	25	W	0	W	W	14.4
36	Electronic and Other Electric Equipment	70	38	*	1	27	1	1	0	2	16.7
37	Transportation Equipment	88	38	W	2	36	W	W	0	7	15.7
38	Instruments and Related Products	20	14	W	W	5	W	0	0	W	26.1
39	Misc. Manufacturing Industries	14	7	*	W	5	W	0	0	W	30.3
	Total	8,357	1,135	176	55	3,271	26	530	152	3,012	3.9

See footnotes at end of table.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
		West Census Region									
	RSE Column Factors:	0.5	0.5	1.4	1.3	0.6	1.2	1.3	1.8	1.2	
20	Food and Kindred Products	245	31	4	7	152	W	25	W	23	8.7
21	Tobacco Products	0	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	5	W	0	0	3	W	0	0	W	29.3
23	Apparel and Other Textile Products	W	2	0	0	2	W	0	0	*	34.9
24	Lumber and Wood Products	144	21	W	9	14	W	0	0	98	13.6
25	Furniture and Fixtures	4	2	0	*	2	*	0	0	*	28.6
26	Paper and Allied Products	342	42	11	1	116	W	W	0	160	8.1
27	Printing and Publishing	13	7	0	W	6	W	0	0	W	19.6
28	Chemicals and Allied Products	171	44	W	W	87	W	W	W	11	15.4
29	Petroleum and Coal Products	728	24	16	W	W	W	W	0	516	9.1
30	Rubber and Misc. Plastics Products	20	13	W	W	6	W	W	0	W	21.1
31	Leather and Leather Products	W	W	0	0	W	*	0	0	W	67.9
32	Stone, Clay and Glass Products	173	22	W	5	65	W	64	W	W	13.7
33	Primary Metal Industries	217	97	1	W	W	W	W	W	20	9.4
34	Fabricated Metal Products	39	11	0	*	17	W	0	W	W	21.2
35	Industrial Machinery and Equipment	21	13	0	*	8	W	0	0	W	20.5
36	Electronic and Other Electric Equipment	29	21	0	W	8	W	0	0	W	18.6
37	Transportation Equipment	51	22	W	1	22	W	0	0	6	20.0
38	Instruments and Related Products	17	11	0	W	6	W	0	0	*	18.4
39	Misc. Manufacturing Industries	5	3	0	W	W	W	0	0	W	39.6
	Total	2,230	389	36	32	719	37	131	30	856	5.2

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[c] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • During manufacturing processes, it is possible that the thermal energy content of an energy input is not completely consumed for the production of heat, power, or electricity generation. Hence, residuals of that input may remain. Those residual leftovers may be subsequently consumed for fuel purposes, whether onsite or offsite at another manufacturing establishment (for example, blast furnace gas as a byproduct recovered from coke and other inputs that were not completely consumed). In such cases, double counting of inputs cannot be avoided, and the "Total Inputs" estimates will be inflated.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 4

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
	RSE Column Factors:	0.6	0.6	1.3	1.2	0.7	1.2	1.4	1.8	1.1	
20	Food and Kindred Products	1,183	198	30	19	630	6	165	2	134	5.5
2011	*Meat Packing Plants*	53	13	1	1	36	W	W	0	2	15.2
2033	*Canned Fruits and Vegetables*	51	5	2	1	43	W	W	0	*	14.9
2037	*Frozen Fruits and Vegetables*	42	10	1	*	28	*	0	0	2	17.2
2046	*Wet Corn Milling*	173	19	1	*	68	*	78	*	5	19.1
2051	*Bread, Cake, and Related Products*	37	8	*	1	27	*	0	0	*	20.8
2061	*Cane Sugar, Except Refining*	105	W	W	1	2	W	W	0	99	18.1
2062	*Cane Sugar Refining*	23	*	2	1	16	*	0	0	4	28.2
2063	*Beet Sugar*	64	1	2	W	19	W	39	2	*	3.2
2075	*Soybean Oil Mills*	56	6	1	W	30	W	15	0	3	1.3
2082	*Malt Beverages*	51	8	W	*	22	W	17	0	*	7.7
21	Tobacco Products	W	3	1	W	W	W	W	0	W	24.1
22	Textile Mill Products	310	111	17	W	117	W	40	0	14	12.3
23	Apparel and Other Textile Products	56	26	W	1	25	W	W	0	W	19.8
24	Lumber and Wood Products	435	68	W	22	48	W	W	0	290	8.5
2421	*Sawmills and Planing Mills, General*	198	22	W	7	11	W	0	0	157	13.6
2436	*Softwood Veneer and Plywood*	73	9	*	1	3	1	0	0	60	14.6
2493	*Reconstituted Wood Products*	71	15	W	W	18	W	W	0	33	13.5
25	Furniture and Fixtures	65	22	*	1	23	1	3	0	14	11.0
2511	*Wood Furniture, Except Upholstered*	24	7	*	*	2	*	1	0	12	14.7
26	Paper and Allied Products	2,634	223	173	9	574	5	307	0	1,343	3.5
2611	*Pulp Mills*	251	7	23	W	22	W	7	0	190	12.7
2621	*Paper Mills*	1,292	117	94	4	271	2	195	0	609	5.2
2631	*Paperboard Mills*	930	46	50	W	199	W	101	0	531	2.8
27	Printing and Publishing	112	59	W	2	47	W	0	0	2	10.1
28	Chemicals and Allied Products	3,273	520	60	13	1,895	W	257	W	521	6.1
2812	*Alkalies and Chlorine*	129	46	W	*	53	*	W	0	W	7.8
2813	*Industrial Gases*	99	80	0	W	19	W	0	0	*	24.1
2816	*Inorganic Pigments*	40	8	W	W	W	W	W	0	W	10.1
2819	*Industrial Inorganic Chemicals, nec.*	344	144	4	W	W	W	32	W	18	11.4
2821	*Plastics Materials and Resins*	319	56	3	1	W	W	19	0	50	9.0
2822	*Synthetic Rubber*	63	8	W	*	42	W	W	0	9	22.1
2823	*Cellulosic Manmade Fibers*	28	1	0	*	W	W	W	0	W	1.1
2824	*Organic Fibers, Noncellulosic*	114	24	9	1	W	W	35	0	W	7.6
2861	*Gum and Wood Chemicals*	10	1	*	W	4	W	0	0	5	8.5
2865	*Cyclic Crudes and Intermediates*	155	16	W	1	98	1	W	0	25	19.1
2869	*Industrial Organic Chemicals, nec.*	1,370	64	5	2	837	1	92	0	369	9.4
2873	*Nitrogenous Fertilizers*	286	13	0	*	267	*	0	0	5	13.3
2874	*Phosphatic Fertilizers*	18	4	W	1	W	*	W	0	W	6.3
2895	*Carbon Black*	30	W	W	W	17	W	0	0	W	16.1
29	Petroleum and Coal Products	3,263	121	72	21	W	47	W	W	2,181	6.8
2911	*Petroleum Refining*	3,153	114	68	7	756	W	W	0	2,161	5.3
30	Rubber and Misc. Plastics Products	286	149	10	3	110	3	5	0	6	7.4
3011	*Tires and Inner Tubes*	48	16	5	1	23	*	2	0	2	9.5
308	*Miscellaneous Plastics Products, nec.*	192	116	3	2	63	2	2	0	4	11.0
31	Leather and Leather Products	W	3	2	W	W	W	0	0	*	20.9
32	Stone, Clay and Glass Products	945	123	7	23	431	4	274	8	75	7.2
3211	*Flat Glass*	52	5	2	*	45	*	0	0	*	20.2
3221	*Glass Containers*	83	15	2	*	66	*	0	0	*	7.9
3229	*Pressed and Blown Glass, nec.*	63	11	W	*	50	W	0	0	*	10.7
3241	*Cement, Hydraulic*	329	37	1	5	25	*	202	4	55	11.9
3274	*Lime*	96	4	1	1	13	*	66	2	9	19.5
3296	*Mineral Wool*	51	12	W	*	37	W	0	2	*	14.6
33	Primary Metal Industries	2,568	493	43	12	801	5	52	687	475	6.6
331	*Blast Furnace and Basic Steel Products*	1,907	182	42	W	518	W	39	654	466	9.2
3312	*Blast Furnaces and Steel Mills*	1,824	148	42	W	476	W	35	654	464	7.6
3313	*Electrometallurgical Products*	23	16	0	*	3	*	Q	0	Q	40.1
3321	*Gray and Ductile Iron Foundries*	92	30	*	1	33	1	*	28	1	12.1
3331	*Primary Copper*	32	5	W	W	22	W	W	0	W	1.1
3334	*Primary Aluminum*	201	183	W	1	17	W	0	0	W	1.6
3339	*Primary Nonferrous Metals, nec.*	38	14	W	W	12	*	8	3	1	15.0
3353	*Aluminum Sheet, Plate, and Foil*	73	16	0	W	53	*	W	0	W	6.6

See footnotes at end of table.

Table A4. Total Inputs of Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 4 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
	RSE Column Factors:	0.6	0.6	1.3	1.2	0.7	1.2	1.4	1.8	1.1	
34	Fabricated Metal Products	365	115	3	4	220	5	W	W	W	12.8
35	Industrial Machinery and Equipment	245	109	W	4	110	3	11	W	5	8.9
357	*Computer and Office Equipment*	20	14	W	*	5	W	0	0	*	27.3
36	Electronic and Other Electric Equipment	230	113	3	2	87	2	W	W	W	12.6
37	Transportation Equipment	358	132	11	7	154	W	28	W	22	10.1
3711	*Motor Vehicles and Car Bodies*	105	30	2	*	52	*	13	0	8	20.8
3714	*Motor Vehicle Parts and Accessories*	117	46	W	1	54	W	10	W	3	17.4
38	Instruments and Related Products	106	46	4	1	W	W	23	0	W	15.8
3841	*Surgical and Medical Instruments*	7	5	*	*	2	*	0	0	*	22.8
39	Misc. Manufacturing Industries	51	19	1	1	19	W	1	0	W	20.9
	Total	16,515	2,656	441	152	6,141	99	1,198	703	5,126	2.8

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[c] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • During manufacturing processes, it is possible that the thermal energy content of an energy input is not completely consumed for the production of heat, power, or electricity generation. Hence, residuals of that input may remain. Those residual leftovers may be subsequently consumed for fuel purposes, whether onsite or offsite at another manufacturing establishment (for example, blast furnace gas as a byproduct recovered from coke and other inputs that were not completely consumed). In such cases, double counting of inputs cannot be avoided, and the "Total Inputs" estimates will be inflated.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A4. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Industry Group and Selected Industries, 1994: Part 5

SIC Code[a]	Industry Group and Industry	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	RSE Row Factors
	RSE Column Factors:	0.2	0.2	2.4	1.4	0.7	1.4	2.3	2.4	1.5	
20	Food and Kindred Products	14,698	14,637	575	3,249	11,042	3,873	173	31	1,952	4.5
2011	*Meat Packing Plants*	759	759	21	144	528	121	W	0	99	9.7
2033	*Canned Fruits and Vegetables*	531	531	53	97	507	287	W	0	94	7.4
2037	*Frozen Fruits and Vegetables*	232	231	Q	Q	195	Q	0	0	Q	8.6
2046	*Wet Corn Milling*	58	58	4	20	48	16	20	W	17	5.9
2051	*Bread, Cake, and Related Products*	1,303	1,303	13	250	1,011	179	0	0	138	12.6
2061	*Cane Sugar, Except Refining*	43	43	12	26	25	6	W	0	39	4.6
2062	*Cane Sugar Refining*	20	20	8	15	11	11	0	0	8	7.2
2063	*Beet Sugar*	41	41	13	30	36	28	28	W	24	1.2
2075	*Soybean Oil Mills*	95	92	13	38	88	13	18	0	31	1.1
2082	*Malt Beverages*	140	140	47	35	133	80	33	0	58	4.6
21	Tobacco Products	121	121	42	42	94	48	31	0	48	4.5
22	Textile Mill Products	4,427	4,427	441	668	2,517	1,282	85	0	448	9.3
23	Apparel and Other Textile Products	18,019	17,754	20	876	8,885	1,330	5	0	528	10.6
24	Lumber and Wood Products	21,481	18,896	83	9,251	7,557	5,075	8	0	5,788	7.6
2421	*Sawmills and Planing Mills, General*	3,406	3,191	Q	2,044	657	447	0	0	1,377	10.1
2436	*Softwood Veneer and Plywood*	182	182	W	158	67	160	0	0	174	3.5
2493	*Reconstituted Wood Products*	246	246	Q	100	132	129	W	0	107	19.5
25	Furniture and Fixtures	7,686	7,535	43	566	5,109	2,669	85	0	745	9.4
2511	*Wood Furniture, Except Upholstered*	1,543	1,543	25	233	776	460	62	0	382	12.2
26	Paper and Allied Products	5,582	5,547	382	878	4,290	2,321	173	0	807	4.8
2611	*Pulp Mills*	55	55	26	38	40	36	7	0	40	3.1
2621	*Paper Mills*	310	310	153	166	232	198	80	0	196	1.8
2631	*Paperboard Mills*	219	219	101	102	189	117	57	0	105	1.2
27	Printing and Publishing	37,384	37,335	82	1,853	22,680	3,601	0	0	759	9.0
28	Chemicals and Allied Products	9,565	9,555	340	2,541	6,723	2,768	125	3	1,955	5.1
2812	*Alkalies and Chlorine*	44	44	3	19	33	13	3	0	30	3.0
2813	*Industrial Gases*	623	617	0	10	152	12	0	0	30	9.9
2816	*Inorganic Pigments*	81	81	5	32	66	47	5	0	23	2.8
2819	*Industrial Inorganic Chemicals, nec.*	568	568	27	285	495	169	13	3	245	6.9
2821	*Plastics Materials and Resins*	456	456	49	160	395	224	15	0	214	5.3
2822	*Synthetic Rubber*	63	63	6	20	53	23	4	0	24	6.0
2823	*Cellulosic Manmade Fibers*	11	11	0	6	6	3	4	0	4	1.3
2824	*Organic Fibers, Noncellulosic*	73	73	23	33	62	38	13	0	22	2.2
2861	*Gum and Wood Chemicals*	60	60	W	38	22	21	0	0	36	3.0
2865	*Cyclic Crudes and Intermediates*	187	187	39	73	178	78	5	0	101	5.6
2869	*Industrial Organic Chemicals, nec.*	631	631	40	250	530	167	24	0	216	7.1
2873	*Nitrogenous Fertilizers*	118	117	0	51	79	28	0	0	47	4.2
2874	*Phosphatic Fertilizers*	69	68	5	46	51	13	4	0	30	2.0
2895	*Carbon Black*	23	23	4	12	22	W	0	0	10	5.2
29	Petroleum and Coal Products	1,971	1,960	117	783	1,148	675	15	W	436	8.5
2911	*Petroleum Refining*	247	246	72	82	218	99	5	0	186	1.9
30	Rubber and Misc. Plastics Products	11,952	11,942	208	1,036	8,927	4,193	23	0	1,304	6.4
3011	*Tires and Inner Tubes*	112	112	32	69	112	88	8	0	67	4.7
308	*Miscellaneous Plastics Products, nec.*	9,967	9,957	114	606	7,358	3,682	6	0	1,037	6.9
31	Leather and Leather Products	1,356	1,356	54	108	975	158	0	0	83	11.9
32	Stone, Clay and Glass Products	11,866	11,815	76	3,829	6,990	2,320	233	43	2,047	6.0
3211	*Flat Glass*	68	68	W	43	62	47	0	0	31	4.0
3221	*Glass Containers*	78	78	11	30	78	45	0	0	35	2.9
3229	*Pressed and Blown Glass, nec.*	163	163	W	37	163	36	0	0	99	10.1
3241	*Cement, Hydraulic*	190	190	11	154	127	67	150	13	144	6.3
3274	*Lime*	84	83	3	68	53	22	46	5	53	5.6
3296	*Mineral Wool*	174	174	W	99	169	112	0	25	97	3.3
33	Primary Metal Industries	5,171	5,117	88	1,287	4,652	2,259	78	230	1,537	5.3
331	*Blast Furnace and Basic Steel Products*	981	981	43	315	931	495	31	38	303	5.1
3312	*Blast Furnaces and Steel Mills*	284	284	26	152	261	103	23	38	138	2.2
3313	*Electrometallurgical Products*	36	36	0	18	32	18	Q	0	14	10.8
3321	*Gray and Ductile Iron Foundries*	517	517	Q	289	488	286	Q	169	297	7.6
3331	*Primary Copper*	20	20	W	8	18	4	W	0	7	1.1
3334	*Primary Aluminum*	44	44	W	36	42	28	0	0	31	3.6
3339	*Primary Nonferrous Metals, nec.*	88	88	W	25	72	32	W	6	33	9.0
3353	*Aluminum Sheet, Plate, and Foil*	55	55	0	38	53	35	W	0	33	2.5

See footnotes at end of table.

Table A4. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Industry Group and Selected Industries, 1994: Part 5 (Continued)

SIC Code[a]	Industry Group and Industry	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	RSE Row Factors
	RSE Column Factors:	0.2	0.2	2.4	1.4	0.7	1.4	2.3	2.4	1.5	
34	Fabricated Metal Products	26,262	26,251	72	2,924	20,023	8,278	64	12	5,776	7.6
35	Industrial Machinery and Equipment	33,837	33,655	97	2,773	24,422	9,191	Q	W	6,475	6.0
357	*Computer and Office Equipment*	1,410	1,381	W	54	1,037	Q	0	0	12	15.1
36	Electronic and Other Electric Equipment	11,254	11,254	65	721	7,362	1,849	12	W	1,302	8.4
37	Transportation Equipment	7,240	7,240	46	811	4,300	2,643	31	4	1,790	8.5
3711	*Motor Vehicles and Car Bodies*	322	322	W	Q	261	Q	Q	0	Q	12.1
3714	*Motor Vehicle Parts and Accessories*	2,062	2,062	5	141	1,454	803	21	3	533	10.7
38	Instruments and Related Products	7,059	7,059	Q	866	4,591	825	Q	0	208	9.7
3841	*Surgical and Medical Instruments*	878	878	3	24	577	198	0	0	45	14.5
39	Misc. Manufacturing Industries	9,994	9,994	161	856	6,488	1,079	3	0	1,015	10.6
	Total	246,925	243,452	3,080	35,920	158,773	56,438	1,397	330	35,002	3.2

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Any Energy Source" represents the non-duplicative total of establishments identified with any of the listed energy sources. This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

[c] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[d] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[e] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[f] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • During manufacturing processes, it is possible that the thermal energy content of an energy input is not completely consumed for the production of heat, power, or electricity generation. Hence, residuals of that input may remain. Those residual leftovers may be subsequently consumed for fuel purposes, whether onsite or offsite at another manufacturing establishment (for example, blast furnace gas as a byproduct recovered from coke and other inputs that were not completely consumed). In such cases, double counting of inputs cannot be avoided, and the "Total Inputs" estimates will be inflated.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total (trillion Btu)	Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
		Total United States									
	RSE Column Factors:	0.5	0.4	1.3	1.3	0.5	1.2	1.5	2.4	1.3	
20	Food and Kindred Products	1,081	59,743	4,785	3,177	609	1,707	7,500	94	28	5.4
21	Tobacco Products	21	1,259	133	W	W	W	W	0	W	23.6
22	Textile Mill Products	311	32,692	2,680	W	113	W	1,821	0	14	12.6
23	Apparel and Other Textile Products	56	7,748	W	106	24	W	W	0	1	22.9
24	Lumber and Wood Products	210	20,832	W	3,793	47	W	W	0	61	9.1
25	Furniture and Fixtures	54	6,678	60	153	23	211	115	0	3	12.1
26	Paper and Allied Products	1,621	72,248	27,444	1,558	558	1,315	13,812	0	306	3.4
27	Printing and Publishing	111	17,410	W	W	46	W	0	0	2	10.7
28	Chemicals and Allied Products	2,997	160,225	9,567	W	1,839	1,073	11,597	W	219	6.1
29	Petroleum and Coal Products	1,156	37,379	4,558	2,883	758	W	W	W	176	7.2
30	Rubber and Misc. Plastics Products	285	43,777	1,600	540	107	824	219	0	4	7.8
31	Leather and Leather Products	10	827	250	W	W	W	0	0	*	22.1
32	Stone, Clay and Glass Products	943	36,026	1,187	3,917	419	1,057	12,422	319	73	7.2
33	Primary Metal Industries	1,859	149,593	6,870	2,126	777	1,472	2,327	16,660	24	6.7
34	Fabricated Metal Products	365	33,900	478	747	213	1,334	W	W	Q	13.0
35	Industrial Machinery and Equipment	244	32,044	W	672	107	885	484	W	4	9.4
36	Electronic and Other Electric Equipment	230	33,152	415	288	84	622	W	W	Q	12.8
37	Transportation Equipment	356	38,998	1,781	1,103	150	W	1,245	W	19	10.2
38	Instruments and Related Products	105	13,494	589	237	28	W	1,065	0	W	16.6
39	Misc. Manufacturing Industries	50	5,575	142	209	19	W	37	0	W	22.1
	Total	12,066	803,603	63,291	25,298	5,929	18,443	54,143	17,294	978	2.8
		Northeast Census Region									
	RSE Column Factors:	0.5	0.4	0.9	1.0	0.6	1.3	1.8	2.4	1.4	
20	Food and Kindred Products	91	6,292	1,496	W	47	W	W	0	3	13.6
21	Tobacco Products	W	20	W	W	W	W	0	0	W	37.8
22	Textile Mill Products	32	1,667	1,055	W	13	234	W	0	3	16.4
23	Apparel and Other Textile Products	W	2,035	W	W	5	W	0	0	W	46.0
24	Lumber and Wood Products	12	1,212	W	247	3	W	0	0	3	26.4
25	*Furniture and Fixtures*	4	424	Q	77	2	20	0	0	*	26.1
26	Paper and Allied Products	244	10,460	11,849	414	46	440	1,965	0	37	7.5
27	Printing and Publishing	21	3,156	W	137	8	W	0	0	W	18.8
28	Chemicals and Allied Products	142	11,412	3,381	716	57	W	W	0	13	10.5
29	Petroleum and Coal Products	89	3,451	897	1,206	39	W	W	0	18	12.7
30	Rubber and Misc. Plastics Products	42	6,475	W	220	13	W	64	0	W	15.0
31	Leather and Leather Products	W	242	155	W	W	17	0	0	W	29.3
32	Stone, Clay and Glass Products	128	5,272	W	891	65	221	1,500	W	W	13.3
33	Primary Metal Industries	192	18,209	W	W	W	495	W	W	3	14.8
34	Fabricated Metal Products	56	5,087	303	409	31	265	W	W	1	16.5
35	Industrial Machinery and Equipment	36	4,525	190	251	15	168	0	0	2	15.0
36	Electronic and Other Electric Equipment	69	7,358	W	162	21	232	W	W	W	23.6
37	Transportation Equipment	41	3,567	992	272	13	W	W	0	2	16.6
38	Instruments and Related Products	51	3,746	554	202	9	W	1,065	0	W	20.4
39	Misc. Manufacturing Industries	21	1,673	115	104	6	W	W	0	Q	26.9
	Total	1,290	96,282	23,043	6,962	499	3,920	5,775	138	115	6.0

See footnotes at end of table.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total (trillion Btu)	Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
		Midwest Census Region									
	RSE Column Factors:	0.5	0.5	1.7	1.3	0.5	1.3	1.3	1.4	1.4	
20	Food and Kindred Products	487	23,487	1,176	W	257	W	5,491	47	10	8.5
21	Tobacco Products	W	W	0	W	W	0	0	0	W	50.1
22	Textile Mill Products	6	W	0	W	4	W	0	0	W	28.2
23	Apparel and Other Textile Products	7	785	0	W	4	W	0	0	W	31.3
24	Lumber and Wood Products	31	3,124	W	281	12	269	W	0	3	16.8
25	Furniture and Fixtures	21	2,236	4	10	12	65	57	0	*	20.2
26	Paper and Allied Products	301	15,889	810	164	113	W	W	0	36	6.5
27	Printing and Publishing	41	5,975	*	W	19	W	0	0	W	13.9
28	Chemicals and Allied Products	426	40,434	W	W	195	255	2,561	0	26	10.9
29	Petroleum and Coal Products	147	7,598	1,515	W	W	W	W	0	19	9.4
30	Rubber and Misc. Plastics Products	111	16,270	W	W	48	224	W	0	1	13.6
31	Leather and Leather Products	W	W	W	W	W	W	0	0	W	30.7
32	Stone, Clay and Glass Products	261	9,722	W	969	114	W	3,050	W	34	14.8
33	Primary Metal Industries	979	51,375	4,833	W	410	W	1,511	12,017	16	9.8
34	Fabricated Metal Products	198	17,194	W	101	126	W	213	W	1	18.3
35	Industrial Machinery and Equipment	129	14,857	176	299	60	390	484	0	2	13.8
36	Electronic and Other Electric Equipment	63	8,573	W	W	29	W	W	0	W	16.9
37	Transportation Equipment	179	17,677	W	413	81	372	959	W	8	16.3
38	Instruments and Related Products	17	2,487	W	3	8	W	0	0	*	21.2
39	Misc. Manufacturing Industries	10	966	0	W	W	W	W	0	W	36.0
	Total	3,419	239,503	9,745	3,881	1,587	4,354	18,418	12,233	159	5.4
		South Census Region									
	RSE Column Factors:	0.5	0.4	1.5	1.3	0.5	1.2	1.4	2.3	1.2	
20	Food and Kindred Products	272	19,516	1,495	W	158	690	W	W	9	8.8
21	Tobacco Products	21	W	W	W	3	W	W	0	W	23.8
22	Textile Mill Products	268	30,123	1,625	963	93	W	W	0	12	15.4
23	Apparel and Other Textile Products	31	4,275	W	W	13	W	W	0	W	22.2
24	Lumber and Wood Products	87	9,476	W	1,657	17	366	W	0	25	12.4
25	Furniture and Fixtures	24	3,354	49	66	8	107	58	0	2	15.2
26	Paper and Allied Products	836	30,321	12,971	892	285	460	7,443	0	186	5.1
27	Printing and Publishing	36	6,096	W	W	13	103	0	0	1	18.7
28	Chemicals and Allied Products	2,262	94,488	5,854	1,185	1,502	662	7,687	0	176	7.7
29	Petroleum and Coal Products	696	18,666	1,175	848	508	W	W	W	93	9.9
30	Rubber and Misc. Plastics Products	112	17,283	835	279	40	311	73	0	2	9.3
31	Leather and Leather Products	1	W	W	W	*	W	0	0	W	41.1
32	Stone, Clay and Glass Products	381	14,618	W	1,136	177	W	4,957	W	26	11.1
33	Primary Metal Industries	503	51,406	W	651	195	W	W	4,250	W	11.0
34	Fabricated Metal Products	73	8,293	W	195	40	296	W	0	W	15.8
35	Industrial Machinery and Equipment	58	8,813	W	96	24	W	0	W	W	14.8
36	Electronic and Other Electric Equipment	70	11,194	54	93	26	200	67	0	2	16.9
37	Transportation Equipment	86	11,268	W	272	35	W	W	0	4	16.1
38	Instruments and Related Products	20	4,049	W	W	5	W	0	0	Q	26.7
39	Misc. Manufacturing Industries	14	1,959	27	W	5	W	0	0	Q	31.0
	Total	5,847	346,626	26,269	9,441	3,146	6,337	23,986	4,406	542	4.0

See footnotes at end of table.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group	Total (trillion Btu)	Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
		West Census Region									
	RSE Column Factors:	0.5	0.4	1.5	1.3	0.6	1.2	1.4	1.7	1.4	
20	Food and Kindred Products	232	10,449	618	1,195	148	W	1,146	W	5	8.3
21	Tobacco Products	0	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	5	W	0	0	3	W	0	0	W	29.2
23	Apparel and Other Textile Products	W	654	0	0	2	W	0	0	*	36.2
24	Lumber and Wood Products	80	7,019	W	1,608	14	W	0	0	30	14.2
25	Furniture and Fixtures	4	664	0	*	2	20	0	0	*	30.0
26	Paper and Allied Products	240	15,578	1,814	89	113	W	W	0	47	8.0
27	Printing and Publishing	13	2,183	0	W	5	W	0	0	W	20.8
28	Chemicals and Allied Products	167	13,892	W	W	84	W	W	W	4	15.7
29	Petroleum and Coal Products	225	7,664	970	W	W	W	W	0	45	9.9
30	Rubber and Misc. Plastics Products	20	3,749	W	W	6	W	W	0	W	21.1
31	Leather and Leather Products	W	W	0	0	W	Q	0	0	W	70.5
32	Stone, Clay and Glass Products	173	6,414	W	921	63	W	2,915	W	W	13.7
33	Primary Metal Industries	184	28,603	189	W	W	W	W	W	W	8.3
34	Fabricated Metal Products	39	3,326	0	41	17	W	0	W	W	21.8
35	Industrial Machinery and Equipment	21	3,849	0	27	7	W	0	0	W	20.6
36	Electronic and Other Electric Equipment	29	6,027	0	W	8	W	0	0	W	18.5
37	Transportation Equipment	51	6,487	W	146	21	W	0	0	6	19.8
38	Instruments and Related Products	17	3,212	0	W	5	W	0	0	*	18.6
39	Misc. Manufacturing Industries	5	978	0	W	W	W	0	0	W	40.6
	Total	1,509	121,193	4,235	5,014	697	3,831	5,964	517	163	5.2

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Electricity" consists of quantities of electricity that were purchased or transferred in, and is equivalent to "purchased electricity" as defined in the *Annual Survey of Manufactures*.

[c] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] "Other" includes all other energy that was purchased or transferred in and not shown elsewhere.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components *because of independent rounding.* • *The derived estimates presented in this table represent the consumption of energy originally produced offsite, acquired as a result of a* purchase or transfer and consumed onsite for the production of heat and power. This definition is consistent with the definition of "purchased" fuels and electric energy used by the Bureau of the Census in the preparation of "Fuels and Electric Energy Consumed," of the *Annual Survey of Manufactures*, for 1974 through 1981. See Appendix B.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.6	0.5	1.3	1.2	0.6	1.1	1.4	1.8	1.3	
20	Food and Kindred Products	1,081	59,743	4,785	3,177	609	1,707	7,500	94	28	5.4
2011	*Meat Packing Plants*	52	3,924	138	101	35	W	W	0	1	16.4
2033	*Canned Fruits and Vegetables*	51	1,490	241	119	42	W	W	0	*	14.9
2037	*Frozen Fruits and Vegetables*	42	2,901	204	62	27	74	0	0	2	17.2
2046	*Wet Corn Milling*	173	5,731	169	10	67	9	3,556	6	5	19.2
2051	*Bread, Cake, and Related Products*	37	2,436	Q	131	26	89	0	0	*	21.2
2061	*Cane Sugar, Except Refining*	8	156	W	220	2	W	W	0	1	14.4
2062	*Cane Sugar Refining*	21	128	313	97	16	4	0	0	2	29.3
2063	*Beet Sugar*	64	437	270	W	18	W	1,790	88	W	3.0
2075	*Soybean Oil Mills*	55	1,866	147	W	29	W	682	0	3	1.3
2082	*Malt Beverages*	51	2,323	W	21	21	W	789	0	W	7.5
21	Tobacco Products	21	1,259	133	W	W	W	W	0	W	22.7
22	Textile Mill Products	311	32,692	2,680	W	113	W	1,821	0	14	12.2
23	Apparel and Other Textile Products	56	7,748	W	106	24	W	W	0	1	21.7
24	Lumber and Wood Products	210	20,832	W	3,793	47	W	W	0	61	8.8
2421	*Sawmills and Planing Mills, General*	73	7,148	W	1,206	11	W	0	0	30	13.4
2436	*Softwood Veneer and Plywood*	28	2,766	Q	251	3	168	0	0	14	19.4
2493	*Reconstituted Wood Products*	46	4,596	W	W	17	W	W	0	8	12.2
25	Furniture and Fixtures	54	6,678	60	153	23	211	115	0	3	11.7
2511	*Wood Furniture, Except Upholstered*	14	2,184	47	62	2	59	56	0	3	15.7
26	Paper and Allied Products	1,621	72,248	27,444	1,558	558	1,315	13,812	0	306	3.3
2611	*Pulp Mills*	81	2,562	3,583	W	21	W	328	0	20	12.9
2621	*Paper Mills*	840	37,907	14,942	744	263	465	8,783	0	144	5.2
2631	*Paperboard Mills*	540	16,399	7,914	W	194	W	4,552	0	132	2.8
27	Printing and Publishing	111	17,410	W	W	46	W	0	0	2	10.2
28	Chemicals and Allied Products	2,997	160,225	9,567	W	1,839	1,073	11,597	W	219	6.1
2812	*Alkalies and Chlorine*	122	13,703	W	51	52	1	W	0	W	8.3
2813	*Industrial Gases*	99	23,525	0	W	18	W	0	0	*	24.1
2816	*Inorganic Pigments*	40	2,393	W	W	W	W	W	0	W	10.3
2819	*Industrial Inorganic Chemicals, nec.*	340	42,861	588	W	137	W	1,451	W	12	11.8
2821	*Plastics Materials and Resins*	290	16,976	542	W	W	W	875	0	20	9.5
2822	*Synthetic Rubber*	67	2,476	W	15	41	W	W	0	12	22.5
2823	*Cellulosic Manmade Fibers*	29	437	0	23	W	W	W	0	W	1.1
2824	*Organic Fibers, Noncellulosic*	115	7,435	1,435	88	W	W	1,577	0	W	7.7
2861	*Gum and Wood Chemicals*	9	211	*	W	4	W	0	0	4	8.7
2865	*Cyclic Crudes and Intermediates*	141	4,794	W	204	95	279	W	0	12	20.7
2869	*Industrial Organic Chemicals, nec.*	1,142	22,537	795	317	812	265	4,178	0	129	10.0
2873	*Nitrogenous Fertilizers*	283	3,831	0	29	260	4	0	0	2	14.1
2874	*Phosphatic Fertilizers*	22	2,185	W	117	W	3	W	0	W	6.0
2895	*Carbon Black*	W	571	W	W	17	W	0	0	*	13.6
29	Petroleum and Coal Products	1,156	37,379	4,558	2,883	758	W	W	W	176	7.2
2911	*Petroleum Refining*	1,052	34,770	4,215	436	708	W	W	0	159	5.4
30	Rubber and Misc. Plastics Products	285	43,777	1,600	540	107	824	219	0	4	7.5
3011	*Tires and Inner Tubes*	48	4,664	720	115	22	95	81	0	2	9.7
308	*Miscellaneous Plastics Products, nec.*	190	33,989	497	262	61	632	82	0	2	11.4
31	Leather and Leather Products	10	827	250	W	W	W	0	0	*	21.0
32	Stone, Clay and Glass Products	943	36,026	1,187	3,917	419	1,057	12,422	319	73	7.2
3211	*Flat Glass*	52	1,468	244	11	44	20	0	0	*	20.3
3221	*Glass Containers*	83	4,268	336	75	64	98	0	0	*	7.9
3229	*Pressed and Blown Glass, nec.*	63	3,233	W	57	49	W	0	0	*	10.7
3241	*Cement, Hydraulic*	327	10,789	158	820	24	9	9,174	150	53	11.9
3274	*Lime*	96	1,151	105	251	12	5	2,980	82	9	19.5
3296	*Mineral Wool*	51	3,401	W	9	36	W	0	86	*	14.6
33	Primary Metal Industries	1,859	149,593	6,870	2,126	777	1,472	2,327	16,660	24	6.7
331	*Blast Furnace and Basic Steel Products*	1,187	55,214	6,680	W	502	W	1,771	15,310	15	10.0
3312	*Blast Furnaces and Steel Mills*	1,104	45,463	6,659	W	461	W	1,598	15,310	13	8.3
3313	*Electrometallurgical Products*	23	4,797	0	21	2	5	Q	0	Q	41.1
3321	*Gray and Ductile Iron Foundries*	92	8,820	Q	113	32	141	5	1,118	1	12.1
3331	*Primary Copper*	32	1,581	W	W	21	W	W	0	W	1.1
3334	*Primary Aluminum*	212	56,657	W	125	16	W	0	0	W	1.6
3339	*Primary Nonferrous Metals, nec.*	38	4,205	W	W	12	17	361	126	1	15.0
3353	*Aluminum Sheet, Plate, and Foil*	72	4,835	0	W	51	54	W	0	W	6.7

See footnotes at end of table.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 2 (Continued)
(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.6	0.5	1.3	1.2	0.6	1.1	1.4	1.8	1.3	
34	Fabricated Metal Products	365	33,900	478	747	213	1,334	W	W	Q	13.0
35	Industrial Machinery and Equipment	244	32,044	W	672	107	885	484	W	4	9.1
357	*Computer and Office Equipment*	20	4,179	W	23	5	W	0	0	*	27.4
36	Electronic and Other Electric Equipment	230	33,152	415	288	84	622	W	W	Q	12.8
37	Transportation Equipment	356	38,998	1,781	1,103	150	W	1,245	W	19	10.2
3711	*Motor Vehicles and Car Bodies*	103	8,863	300	81	51	88	571	0	5	21.2
3714	*Motor Vehicle Parts and Accessories*	117	13,552	W	146	53	W	444	W	3	17.3
38	Instruments and Related Products	105	13,494	589	237	28	W	1,065	0	W	16.0
3841	*Surgical and Medical Instruments*	7	1,347	16	13	2	30	0	0	*	23.3
39	Misc. Manufacturing Industries	50	5,575	142	209	19	W	37	0	W	21.2
	Total	12,066	803,603	63,291	25,298	5,929	18,443	54,143	17,294	978	2.8

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Electricity" consists of quantities of electricity that were purchased or transferred in, and is equivalent to "purchased electricity" as defined in the *Annual Survey of Manufactures*.
[c] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[e] "Other" includes all other energy that was purchased or transferred in and not shown elsewhere.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table represent the consumption of energy originally produced offsite, acquired as a result of a purchase or transfer and consumed onsite for the production of heat and power. This definition is consistent with the definition of "purchased" fuels and electric energy used by the Bureau of the Census in the preparation of "Fuels and Electric Energy Consumed," of the *Annual Survey of Manufactures*, for 1974 through 1981. See Appendix B.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 3

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
		Total United States									
	RSE Column Factors:	0.5	0.4	1.3	1.3	0.5	1.2	1.5	2.4	1.3	
20	Food and Kindred Products	1,081	204	30	19	627	6	165	2	28	5.4
21	Tobacco Products	21	4	1	W	W	W	W	0	W	23.7
22	Textile Mill Products	311	112	17	W	117	W	40	0	14	12.6
23	Apparel and Other Textile Products	56	26	W	1	25	W	W	0	1	22.9
24	Lumber and Wood Products	210	71	W	22	48	W	W	0	61	9.1
25	Furniture and Fixtures	54	23	*	1	23	1	3	0	3	12.1
26	Paper and Allied Products	1,621	247	173	9	574	5	307	0	306	3.4
27	Printing and Publishing	111	59	W	W	47	W	0	0	2	10.7
28	Chemicals and Allied Products	2,997	547	60	W	1,894	4	257	W	219	6.1
29	Petroleum and Coal Products	1,156	128	29	17	781	W	W	W	176	7.2
30	Rubber and Misc. Plastics Products	285	149	10	3	110	3	5	0	4	7.8
31	Leather and Leather Products	10	3	2	W	W	W	0	0	*	22.1
32	Stone, Clay and Glass Products	943	123	7	23	431	4	274	8	73	7.2
33	Primary Metal Industries	1,859	510	43	12	801	5	52	411	24	6.7
34	Fabricated Metal Products	365	116	3	4	220	5	W	W	Q	13.0
35	Industrial Machinery and Equipment	244	109	W	4	110	3	11	W	4	9.4
36	Electronic and Other Electric Equipment	230	113	3	2	87	2	W	W	Q	12.8
37	Transportation Equipment	356	133	11	6	154	W	28	W	19	10.1
38	Instruments and Related Products	105	46	4	1	29	W	23	0	W	16.6
39	Misc. Manufacturing Industries	50	19	1	1	19	W	1	0	W	22.2
	Total	12,066	2,742	398	147	6,107	69	1,198	427	978	2.8
		Northeast Census Region									
	RSE Column Factors:	0.5	0.4	0.9	1.0	0.6	1.3	1.8	2.4	1.4	
20	Food and Kindred Products	91	21	9	W	49	W	W	0	3	13.6
21	Tobacco Products	W	*	W	W	W	W	0	0	W	37.7
22	Textile Mill Products	32	6	7	W	14	1	W	0	3	16.4
23	Apparel and Other Textile Products	W	7	W	W	5	W	0	0	W	45.9
24	Lumber and Wood Products	12	4	W	1	3	W	0	0	3	26.3
25	Furniture and Fixtures	4	1	*	*	2	*	0	0	*	26.1
26	Paper and Allied Products	244	36	74	2	48	2	45	0	37	7.5
27	Printing and Publishing	21	11	W	1	9	W	0	0	W	18.8
28	Chemicals and Allied Products	142	39	21	4	59	W	W	0	13	10.4
29	Petroleum and Coal Products	89	12	6	7	40	W	W	0	18	12.7
30	Rubber and Misc. Plastics Products	42	22	W	1	14	W	1	0	W	15.0
31	Leather and Leather Products	W	1	1	W	W	*	0	0	W	29.3
32	Stone, Clay and Glass Products	128	18	W	5	67	1	33	W	W	13.3
33	Primary Metal Industries	192	62	W	W	W	2	W	W	3	14.8
34	Fabricated Metal Products	56	17	2	2	32	1	W	W	1	16.5
35	Industrial Machinery and Equipment	36	15	1	1	16	1	0	0	2	15.0
36	Electronic and Other Electric Equipment	69	25	W	1	22	1	W	W	W	23.6
37	Transportation Equipment	41	12	6	2	13	W	W	0	2	16.5
38	Instruments and Related Products	51	13	3	1	10	W	23	0	W	20.4
39	Misc. Manufacturing Industries	21	6	1	1	6	W	W	0	Q	26.9
	Total	1,290	329	145	41	514	15	130	3	115	5.9

See footnotes at end of table.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
		Midwest Census Region									
	RSE Column Factors:	0.5	0.5	1.7	1.3	0.5	1.3	1.3	1.4	1.4	
20	Food and Kindred Products	487	80	7	W	264	W	121	1	10	8.5
21	Tobacco Products	W	W	0	W	W	0	0	0	W	50.1
22	Textile Mill Products	6	W	0	W	4	W	0	0	W	28.2
23	Apparel and Other Textile Products	7	3	0	W	4	W	0	0	W	31.3
24	Lumber and Wood Products	31	11	W	2	13	1	W	0	3	16.9
25	Furniture and Fixtures	21	8	*	*	12	*	1	0	*	20.2
26	Paper and Allied Products	301	54	5	1	117	W	W	0	36	6.5
27	Printing and Publishing	41	20	*	W	20	W	0	0	W	13.9
28	Chemicals and Allied Products	426	138	W	W	201	1	57	0	26	10.9
29	Petroleum and Coal Products	147	26	10	W	W	W	W	0	19	9.4
30	Rubber and Misc. Plastics Products	111	56	W	W	49	1	W	0	1	13.6
31	Leather and Leather Products	W	W	W	W	W	W	0	0	W	30.8
32	Stone, Clay and Glass Products	261	33	W	6	117	W	67	W	34	14.8
33	Primary Metal Industries	979	175	30	W	422	W	33	297	16	9.8
34	Fabricated Metal Products	198	59	W	1	129	W	5	W	1	18.3
35	Industrial Machinery and Equipment	129	51	1	2	62	1	11	0	2	13.8
36	Electronic and Other Electric Equipment	63	29	W	W	30	W	W	0	W	17.0
37	Transportation Equipment	179	60	W	2	84	1	21	W	8	16.3
38	Instruments and Related Products	17	8	W	*	9	W	0	0	*	21.2
39	Misc. Manufacturing Industries	10	3	0	W	W	W	W	0	W	36.0
	Total	3,419	817	61	23	1,634	16	407	302	159	5.4
		South Census Region									
	RSE Column Factors:	0.5	0.4	1.5	1.3	0.5	1.2	1.4	2.3	1.2	
20	Food and Kindred Products	272	67	9	W	162	2	W	W	9	8.8
21	Tobacco Products	21	W	W	W	3	W	W	0	W	23.8
22	Textile Mill Products	268	103	10	6	95	W	W	0	12	15.3
23	Apparel and Other Textile Products	31	15	W	W	13	W	W	0	W	22.2
24	Lumber and Wood Products	87	32	W	10	18	1	W	0	25	12.4
25	Furniture and Fixtures	24	11	*	*	8	*	1	0	2	15.2
26	Paper and Allied Products	836	103	82	5	294	2	165	0	186	5.1
27	Printing and Publishing	36	21	W	W	13	*	0	0	1	18.7
28	Chemicals and Allied Products	2,262	322	37	7	1,547	2	170	0	176	7.7
29	Petroleum and Coal Products	696	64	7	5	523	W	W	W	93	9.9
30	Rubber and Misc. Plastics Products	112	59	5	2	41	1	2	0	2	9.3
31	Leather and Leather Products	1	W	W	W	*	W	0	0	W	41.1
32	Stone, Clay and Glass Products	381	50	W	7	183	W	109	W	26	11.1
33	Primary Metal Industries	503	175	W	4	200	W	W	105	W	11.0
34	Fabricated Metal Products	73	28	W	1	41	1	W	0	W	15.8
35	Industrial Machinery and Equipment	58	30	W	1	25	W	0	W	W	14.8
36	Electronic and Other Electric Equipment	70	38	*	1	27	1	1	0	2	16.9
37	Transportation Equipment	86	38	W	2	36	W	W	0	4	16.1
38	Instruments and Related Products	20	14	W	W	5	W	0	0	Q	26.7
39	Misc. Manufacturing Industries	14	7	*	W	5	W	0	0	Q	31.0
	Total	5,847	1,183	165	55	3,240	23	530	109	542	4.0

See footnotes at end of table.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
		West Census Region									
	RSE Column Factors:	0.5	0.4	1.5	1.3	0.6	1.2	1.3	1.7	1.4	
20	Food and Kindred Products	232	36	4	7	152	W	25	W	5	8.3
21	Tobacco Products	0	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	5	W	0	0	3	W	0	0	W	29.2
23	Apparel and Other Textile Products	W	2	0	0	2	W	0	0	*	36.3
24	Lumber and Wood Products	80	24	W	9	14	W	0	0	30	14.4
25	Furniture and Fixtures	4	2	0	*	2	*	0	0	*	30.0
26	Paper and Allied Products	240	53	11	1	116	W	W	0	47	8.0
27	Printing and Publishing	13	7	0	W	6	W	0	0	W	20.8
28	Chemicals and Allied Products	167	47	W	W	87	W	W	W	4	15.6
29	Petroleum and Coal Products	225	26	6	W	W	W	W	0	45	10.0
30	Rubber and Misc. Plastics Products	20	13	W	W	6	W	W	0	W	21.1
31	Leather and Leather Products	W	W	0	0	W	*	0	0	W	70.6
32	Stone, Clay and Glass Products	173	22	W	5	65	W	64	W	W	13.7
33	Primary Metal Industries	184	98	1	W	W	W	W	W	W	8.3
34	Fabricated Metal Products	39	11	0	*	17	W	0	W	W	21.7
35	Industrial Machinery and Equipment	21	13	0	*	8	W	0	0	W	20.6
36	Electronic and Other Electric Equipment	29	21	0	W	8	W	0	0	W	18.5
37	Transportation Equipment	51	22	W	1	22	W	0	0	6	19.8
38	Instruments and Related Products	17	11	0	W	6	W	0	0	*	18.6
39	Misc. Manufacturing Industries	5	3	0	W	W	W	0	0	W	40.5
	Total	1,509	414	27	29	718	15	131	13	163	5.2

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Electricity" consists of quantities of electricity that were purchased or transferred in, and is equivalent to "purchased electricity" as defined in the *Annual Survey of Manufactures*.

[c] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] "Other" includes all other energy that was purchased or transferred in and not shown elsewhere.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent..

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table represent the consumption of energy originally produced offsite, acquired as a result of a purchase or transfer and consumed onsite for the production of heat and power. This definition is consistent with the definition of "purchased" fuels and electric energy used by the Bureau of the Census in the preparation of "Fuels and Electric Energy Consumed," of the *Annual Survey of Manufactures*, for 1974 through 1981. See Appendix B.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 4

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total	Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
	RSE Column Factors:	0.6	0.5	1.3	1.2	0.6	1.1	1.4	1.8	1.3	
20	Food and Kindred Products	1,081	204	30	19	627	6	165	2	28	5.4
2011	*Meat Packing Plants*	52	13	1	1	36	W	W	0	1	16.4
2033	*Canned Fruits and Vegetables*	51	5	2	1	43	W	W	0	*	14.9
2037	*Frozen Fruits and Vegetables*	42	10	1	*	28	*	0	0	2	17.2
2046	*Wet Corn Milling*	173	20	1	*	68	*	78	*	5	19.2
2051	*Bread, Cake, and Related Products*	37	8	*	1	27	*	0	0	*	21.2
2061	*Cane Sugar, Except Refining*	8	1	W	1	2	W	W	0	1	14.4
2062	*Cane Sugar Refining*	21	*	2	1	16	*	0	0	2	29.3
2063	*Beet Sugar*	64	1	2	W	19	W	39	2	W	3.0
2075	*Soybean Oil Mills*	55	6	1	W	30	W	15	0	3	1.3
2082	*Malt Beverages*	51	8	W	*	22	W	17	0	W	7.5
21	Tobacco Products	21	4	1	W	W	W	W	0	W	22.7
22	Textile Mill Products	311	112	17	W	117	W	40	0	14	12.2
23	Apparel and Other Textile Products	56	26	W	1	25	W	W	0	1	21.7
24	Lumber and Wood Products	210	71	W	22	48	W	W	0	61	8.8
2421	*Sawmills and Planing Mills, General*	73	24	W	7	11	W	0	0	30	13.4
2436	*Softwood Veneer and Plywood*	28	9	*	1	3	1	0	0	14	19.4
2493	*Reconstituted Wood Products*	46	16	W	W	18	W	W	0	8	12.2
25	Furniture and Fixtures	54	23	*	1	23	1	3	0	3	11.7
2511	*Wood Furniture, Except Upholstered*	14	7	*	*	2	*	1	0	3	15.7
26	Paper and Allied Products	1,621	247	173	9	574	5	307	0	306	3.3
2611	*Pulp Mills*	81	9	23	W	22	W	7	0	20	12.9
2621	*Paper Mills*	840	129	94	4	271	2	195	0	144	5.2
2631	*Paperboard Mills*	540	56	50	W	199	W	101	0	132	2.8
27	Printing and Publishing	111	59	W	W	47	W	0	0	2	10.2
28	Chemicals and Allied Products	2,997	547	60	W	1,894	4	257	W	219	6.1
2812	*Alkalies and Chlorine*	122	47	W	*	53	*	W	0	W	8.4
2813	*Industrial Gases*	99	80	0	W	19	W	0	0	*	24.1
2816	*Inorganic Pigments*	40	8	W	W	W	W	W	0	W	10.1
2819	*Industrial Inorganic Chemicals, nec.*	340	146	4	W	141	W	32	W	12	11.8
2821	*Plastics Materials and Resins*	290	58	3	W	W	W	19	0	20	9.5
2822	*Synthetic Rubber*	67	8	W	*	42	W	W	0	12	22.5
2823	*Cellulosic Manmade Fibers*	29	1	0	*	W	W	W	0	W	1.1
2824	*Organic Fibers, Noncellulosic*	115	25	9	1	W	W	35	0	W	7.7
2861	*Gum and Wood Chemicals*	9	1	*	W	4	W	0	0	4	8.7
2865	*Cyclic Crudes and Intermediates*	141	16	W	1	98	1	W	0	12	20.6
2869	*Industrial Organic Chemicals, nec.*	1,142	77	5	2	837	1	92	0	129	10.0
2873	*Nitrogenous Fertilizers*	283	13	0	*	267	*	0	0	2	14.1
2874	*Phosphatic Fertilizers*	22	7	W	1	W	*	W	0	W	6.0
2895	*Carbon Black*	W	2	W	W	17	W	0	0	*	13.6
29	Petroleum and Coal Products	1,156	128	29	17	781	W	W	W	176	7.2
2911	*Petroleum Refining*	1,052	119	26	3	730	W	W	0	159	5.4
30	Rubber and Misc. Plastics Products	285	149	10	3	110	3	5	0	4	7.5
3011	*Tires and Inner Tubes*	48	16	5	1	23	*	2	0	2	9.7
308	*Miscellaneous Plastics Products, nec.*	190	116	3	2	63	2	2	0	2	11.4
31	Leather and Leather Products	10	3	2	W	W	W	0	0	*	21.0
32	Stone, Clay and Glass Products	943	123	7	23	431	4	274	8	73	7.2
3211	*Flat Glass*	52	5	2	*	45	*	0	0	*	20.3
3221	*Glass Containers*	83	15	2	*	66	*	0	0	*	7.9
3229	*Pressed and Blown Glass, nec.*	63	11	W	*	50	W	0	0	*	10.7
3241	*Cement, Hydraulic*	327	37	1	5	25	*	202	4	53	11.9
3274	*Lime*	96	4	1	1	13	*	66	2	9	19.5
3296	*Mineral Wool*	51	12	W	*	37	W	0	2	*	14.6
33	Primary Metal Industries	1,859	510	43	12	801	5	52	411	24	6.7
331	*Blast Furnace and Basic Steel Products*	1,187	188	42	W	517	W	39	378	15	10.0
3312	*Blast Furnaces and Steel Mills*	1,104	155	42	W	475	W	35	378	13	8.3
3313	*Electrometallurgical Products*	23	16	0	*	3	*	Q	0	Q	41.1
3321	*Gray and Ductile Iron Foundries*	92	30	*	1	33	1	*	28	1	12.1
3331	*Primary Copper*	32	5	W	W	22	W	W	0	W	1.1
3334	*Primary Aluminum*	212	193	W	1	17	W	0	0	W	1.6
3339	*Primary Nonferrous Metals, nec.*	38	14	W	W	12	*	8	3	1	15.0
3353	*Aluminum Sheet, Plate, and Foil*	72	16	0	W	53	*	W	0	W	6.7

See footnotes at end of table.

Table A5. Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 4 (Continued)
(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total	Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil[c]	Natural Gas[d]	LPG	Coal	Coke and Breeze	Other[e]	RSE Row Factors
	RSE Column Factors:	0.6	0.5	1.3	1.2	0.6	1.1	1.4	1.8	1.3	
34	Fabricated Metal Products	365	116	3	4	220	5	W	W	Q	13.0
35	Industrial Machinery and Equipment	244	109	W	4	110	3	11	W	4	9.1
357	*Computer and Office Equipment*	20	14	W	*	5	W	0	0	*	27.4
36	Electronic and Other Electric Equipment	230	113	3	2	87	2	W	W	Q	12.8
37	Transportation Equipment	356	133	11	6	154	W	28	W	19	10.1
3711	*Motor Vehicles and Car Bodies*	103	30	2	*	52	*	13	0	5	21.2
3714	*Motor Vehicle Parts and Accessories*	117	46	W	1	54	W	10	W	3	17.3
38	Instruments and Related Products	105	46	4	1	29	W	23	0	W	16.0
3841	*Surgical and Medical Instruments*	7	5	*	*	2	*	0	0	*	23.3
39	Misc. Manufacturing Industries	50	19	1	1	19	W	1	0	W	21.3
	Total	12,066	2,742	398	147	6,107	69	1,198	427	978	2.8

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Electricity" consists of quantities of electricity that were purchased or transferred in, and is equivalent to "purchased electricity" as defined in the *Annual Survey of Manufactures.*
[c] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[e] "Other" includes all other energy that was purchased or transferred in and not shown elsewhere.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The derived estimates presented in this table represent the consumption of energy originally produced offsite, acquired as a result of a purchase or transfer and consumed onsite for the production of heat and power. This definition is consistent with the definition of "purchased" fuels and electric energy used by the Bureau of the Census in the preparation of "Fuels and Electric Energy Consumed," of the *Annual Survey of Manufactures*, for 1974 through 1981. See Appendix B.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A5. Number of Establishments by Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation, by Industry Group and Selected Industries, 1994: Part 5

SIC Code[a]	Industry Group and Industry	Any Energy Source[b]	Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	RSE Row Factors
	RSE Column Factors:	0.2	0.2	2.4	1.4	0.7	1.4	2.3	2.4	1.5	
20	Food and Kindred Products	14,698	14,637	575	3,247	11,042	3,871	173	31	1,891	4.5
2011	*Meat Packing Plants*	759	759	21	144	528	121	W	0	90	9.9
2033	*Canned Fruits and Vegetables*	531	531	53	97	507	286	W	0	94	7.5
2037	*Frozen Fruits and Vegetables*	232	231	Q	Q	195	Q	0	0	Q	8.7
2046	*Wet Corn Milling*	58	58	4	20	48	16	20	W	17	5.9
2051	*Bread, Cake, and Related Products*	1,303	1,303	13	250	1,011	179	0	0	136	12.7
2061	*Cane Sugar, Except Refining*	43	43	12	26	25	6	W	0	21	5.2
2062	*Cane Sugar Refining*	20	20	8	15	11	11	0	0	8	7.2
2063	*Beet Sugar*	41	41	13	30	36	28	28	W	23	1.2
2075	*Soybean Oil Mills*	95	92	13	38	88	13	18	0	25	1.1
2082	*Malt Beverages*	140	140	47	35	133	80	33	0	51	4.7
21	Tobacco Products	121	118	42	42	94	48	31	0	48	4.6
22	Textile Mill Products	4,427	4,427	441	668	2,517	1,282	85	0	444	9.4
23	Apparel and Other Textile Products	18,019	17,754	20	876	8,885	1,330	5	0	531	10.6
24	Lumber and Wood Products	21,431	18,849	83	9,251	7,557	5,075	8	0	4,487	7.7
2421	*Sawmills and Planing Mills, General*	3,406	3,191	Q	2,044	657	447	0	0	987	10.5
2436	*Softwood Veneer and Plywood*	182	182	W	158	67	160	0	0	140	4.3
2493	*Reconstituted Wood Products*	246	246	Q	100	132	129	W	0	71	19.6
25	Furniture and Fixtures	7,686	7,535	43	566	5,109	2,669	85	0	441	9.3
2511	*Wood Furniture, Except Upholstered*	1,543	1,543	25	233	776	460	62	0	138	11.7
26	Paper and Allied Products	5,582	5,547	382	873	4,290	2,321	173	0	763	4.9
2611	*Pulp Mills*	55	55	26	38	40	36	7	0	34	3.1
2621	*Paper Mills*	310	310	153	165	232	198	80	0	180	1.8
2631	*Paperboard Mills*	219	219	101	102	189	117	57	0	103	1.2
27	Printing and Publishing	37,384	37,335	82	1,853	22,680	3,601	0	0	734	9.0
28	Chemicals and Allied Products	9,565	9,553	340	2,541	6,716	2,623	125	3	1,880	5.2
2812	*Alkalies and Chlorine*	44	44	3	19	33	13	3	0	18	3.2
2813	*Industrial Gases*	623	617	0	10	152	12	0	0	30	9.9
2816	*Inorganic Pigments*	81	81	5	32	66	47	5	0	23	2.8
2819	*Industrial Inorganic Chemicals, nec.*	568	566	27	285	491	169	13	3	240	7.1
2821	*Plastics Materials and Resins*	456	456	49	160	395	222	15	0	190	5.4
2822	*Synthetic Rubber*	63	63	6	20	53	23	4	0	24	6.1
2823	*Cellulosic Manmade Fibers*	11	11	0	6	6	3	4	0	7	1.3
2824	*Organic Fibers, Noncellulosic*	73	73	23	33	62	38	13	0	22	2.2
2861	*Gum and Wood Chemicals*	60	60	W	38	22	21	0	0	35	3.0
2865	*Cyclic Crudes and Intermediates*	187	187	39	73	178	78	5	0	99	5.6
2869	*Industrial Organic Chemicals, nec.*	631	630	40	250	530	167	24	0	191	7.2
2873	*Nitrogenous Fertilizers*	118	117	0	51	79	28	0	0	47	4.2
2874	*Phosphatic Fertilizers*	69	68	5	46	51	13	4	0	30	2.0
2895	*Carbon Black*	23	23	4	12	22	W	0	0	10	5.2
29	Petroleum and Coal Products	1,970	1,959	115	783	1,133	675	15	W	415	8.5
2911	*Petroleum Refining*	246	244	72	82	216	99	5	0	184	1.9
30	Rubber and Misc. Plastics Products	11,952	11,942	208	1,036	8,923	4,193	23	0	1,283	6.4
3011	*Tires and Inner Tubes*	112	112	32	69	112	88	8	0	64	4.8
308	*Miscellaneous Plastics Products, nec.*	9,967	9,957	114	606	7,354	3,682	6	0	1,026	6.9
31	Leather and Leather Products	1,356	1,356	54	108	975	158	0	0	83	11.9
32	Stone, Clay and Glass Products	11,866	11,815	76	3,829	6,990	2,320	233	43	2,047	6.0
3211	*Flat Glass*	68	68	W	43	62	47	0	0	31	4.0
3221	*Glass Containers*	78	78	11	30	78	45	0	0	35	2.9
3229	*Pressed and Blown Glass, nec.*	163	163	W	37	163	36	0	0	99	10.1
3241	*Cement, Hydraulic*	190	190	11	154	127	67	150	13	144	6.3
3274	*Lime*	84	83	3	68	53	22	46	5	53	5.6
3296	*Mineral Wool*	174	174	W	99	169	112	0	25	97	3.3
33	Primary Metal Industries	5,171	5,117	88	1,287	4,652	2,259	78	220	1,535	5.4
331	*Blast Furnace and Basic Steel Products*	981	981	43	315	931	495	31	28	298	5.3
3312	*Blast Furnaces and Steel Mills*	284	284	26	152	261	103	23	28	134	2.3
3313	*Electrometallurgical Products*	36	36	0	18	32	18	Q	0	14	10.8
3321	*Gray and Ductile Iron Foundries*	517	517	Q	289	488	286	Q	169	297	7.5
3331	*Primary Copper*	20	20	W	8	18	4	W	0	7	1.1
3334	*Primary Aluminum*	44	44	W	36	42	28	0	0	31	3.6
3339	*Primary Nonferrous Metals, nec.*	88	88	W	25	72	32	W	6	33	9.0
3353	*Aluminum Sheet, Plate, and Foil*	55	55	0	38	53	35	W	0	33	2.5

See footnotes at end of table.

Table A5. Number of Establishments by Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation, by Industry Group and Selected Industries, 1994: Part 5 (Continued)

SIC Code[a]	Industry Group and Industry	Any Energy Source[b]	Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal	Coke and Breeze	Other[f]	RSE Row Factors
	RSE Column Factors:	0.2	0.2	2.4	1.4	0.7	1.4	2.3	2.4	1.5	
34	Fabricated Metal Products	26,262	26,251	72	2,924	20,023	8,278	64	12	5,752	7.6
35	Industrial Machinery and Equipment	33,837	33,655	97	2,773	24,422	9,191	Q	W	6,406	6.0
357	*Computer and Office Equipment*	1,410	1,381	W	54	1,037	Q	0	0	12	15.1
36	Electronic and Other Electric Equipment	11,254	11,254	65	721	7,362	1,849	12	W	1,302	8.4
37	Transportation Equipment	7,240	7,240	46	811	4,300	2,643	31	4	1,789	8.5
3711	*Motor Vehicles and Car Bodies*	322	322	W	Q	261	Q	Q	0	Q	12.2
3714	*Motor Vehicle Parts and Accessories*	2,062	2,062	5	141	1,454	803	21	3	531	10.7
38	Instruments and Related Products	7,059	7,059	Q	865	4,591	825	Q	0	204	9.8
3841	*Surgical and Medical Instruments*	878	878	3	24	577	198	0	0	45	14.5
39	Misc. Manufacturing Industries	9,994	9,994	161	856	6,488	1,079	3	0	1,003	10.6
	Total	246,874	243,397	3,077	35,911	158,747	56,291	1,397	319	33,039	3.2

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Any Energy Source" represents the non-duplicative total of establishments identified with any of the listed energy sources. This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

[c] "Electricity" consists of quantities of electricity that were purchased or transferred, and is equivalent to "purchased electricity" as defined in the *Annual Survey of Manufactures*.

[d] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[e] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[f] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers), and other energy that respondents indicated was used to produce heat and power.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Office of Oil and Gas, Petroleum Supply Division, Form EIA-810, "Monthly Refinery Report" for 1994.

Table A6. Total Inputs of Selected Byproduct Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Blast Furnace/ Coke Oven Gases	Waste Gas	Petroleum Coke	Pulping Liquor	Wood Chips, Bark	Waste Oils/Tars And Waste Materials	RSE Row Factors
		Total United States							
	RSE Column Factors:	0.7	1.0	1.5	1.4	0.6	0.9	1.4	
20	Food and Kindred Products	16	0	2	0	0	8	6	14.8
21	Tobacco Products	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	Q	0	0	0	0	W	W	33.2
23	Apparel and Other Textile Products	*	0	0	0	0	0	*	0.0
24	Lumber and Wood Products	277	0	1	0	0	267	9	12.6
25	Furniture and Fixtures	13	0	*	0	0	12	1	17.2
26	Paper and Allied Products	1,300	0	*	12	882	389	16	6.4
27	Printing and Publishing	*	0	0	0	0	W	W	20.7
28	Chemicals and Allied Products	298	*	267	4	0	8	19	7.5
29	Petroleum and Coal Products	2,077	0	1,341	736	0	0	1	5.3
30	Rubber and Misc. Plastics Products	*	0	*	0	0	0	*	15.5
31	Leather and Leather Products	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	57	0	1	48	0	6	3	22.6
33	Primary Metal Industries	463	452	W	3	0	*	W	13.5
34	Fabricated Metal Products	*	0	W	0	0	W	W	30.8
35	Industrial Machinery and Equipment	1	0	0	0	0	*	*	22.9
36	Electronic and Other Electric Equipment	*	0	W	0	0	0	W	42.6
37	Transportation Equipment	4	0	*	0	0	0	3	37.5
38	Instruments and Related Products	1	0	*	0	0	*	*	37.2
39	Misc. Manufacturing Industries	*	0	0	0	0	W	W	33.9
	Total	4,509	452	1,612	802	882	693	67	3.8
		Northeast Census Region							
	RSE Column Factors:	0.8	1.5	0.8	1.3	0.9	0.7	1.4	
20	Food and Kindred Products	*	0	W	0	0	*	W	18.3
21	Tobacco Products	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	0	0	0	W	0	51.4
23	Apparel and Other Textile Products	0	0	0	0	0	0	0	0.0
24	Lumber and Wood Products	12	0	0	0	0	10	Q	37.8
25	Furniture and Fixtures	1	0	0	0	0	1	*	33.8
26	Paper and Allied Products	88	0	0	W	54	W	W	12.8
27	Printing and Publishing	*	0	0	0	0	0	*	0.0
28	Chemicals and Allied Products	5	0	W	0	0	0	W	19.0
29	Petroleum and Coal Products	129	0	80	48	0	0	*	8.3
30	Rubber and Misc. Plastics Products	*	0	W	0	0	0	W	48.4
31	Leather and Leather Products	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	2	0	0	1	0	0	*	26.6
33	Primary Metal Industries	87	W	W	W	0	W	W	16.1
34	Fabricated Metal Products	W	0	W	0	0	W	W	44.7
35	Industrial Machinery and Equipment	*	0	0	0	0	0	*	27.3
36	Electronic and Other Electric Equipment	*	0	W	0	0	0	W	32.3
37	Transportation Equipment	0	0	0	0	0	0	0	0.0
38	Instruments and Related Products	*	0	*	0	0	0	0	54.5
39	Misc. Manufacturing Industries	W	0	0	0	0	W	W	43.0
	Total	324	W	81	55	54	40	W	10.5

See footnotes at end of table.

Table A6. Total Inputs of Selected Byproduct Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Blast Furnace/ Coke Oven Gases	Waste Gas	Petroleum Coke	Pulping Liquor	Wood Chips, Bark	Waste Oils/Tars And Waste Materials	RSE Row Factors
		Midwest Census Region							
	RSE Column Factors:	0.8	1.0	1.0	1.0	1.1	0.9	1.2	
20	Food and Kindred Products	2	0	W	0	0	0	W	25.7
21	Tobacco Products	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	0	0	0	0	0	0	0	0.0
23	Apparel and Other Textile Products	0	0	0	0	0	0	0	0.0
24	Lumber and Wood Products	22	0	0	0	0	21	1	27.7
25	Furniture and Fixtures	2	0	*	0	0	2	*	32.9
26	Paper and Allied Products	85	0	W	*	45	W	W	15.1
27	Printing and Publishing	W	0	0	0	0	W	W	33.0
28	Chemicals and Allied Products	6	0	1	0	0	2	3	13.4
29	Petroleum and Coal Products	363	0	225	139	0	0	*	10.4
30	Rubber and Misc. Plastics Products	*	0	W	0	0	0	W	20.1
31	Leather and Leather Products	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	26	0	0	26	0	*	*	23.7
33	Primary Metal Industries	254	251	0	*	0	0	2	11.6
34	Fabricated Metal Products	W	0	0	0	0	0	W	34.0
35	Industrial Machinery and Equipment	*	0	0	0	0	*	*	24.4
36	Electronic and Other Electric Equipment	*	0	0	0	0	0	*	36.0
37	Transportation Equipment	1	0	*	0	0	0	1	29.4
38	Instruments and Related Products	*	0	0	0	0	*	*	42.7
39	Misc. Manufacturing Industries	*	0	0	0	0	*	0	0.0
	Total	762	251	227	165	45	63	10	8.1
		South Census Region							
	RSE Column Factors:	0.7	1.3	1.1	1.4	0.7	0.9	1.3	
20	Food and Kindred Products	11	0	1	0	0	6	5	20.8
21	Tobacco Products	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	0	0	0	W	W	35.1
23	Apparel and Other Textile Products	*	0	0	0	0	0	*	0.0
24	Lumber and Wood Products	152	0	1	0	0	148	3	17.2
25	Furniture and Fixtures	9	0	0	0	0	9	*	18.8
26	Paper and Allied Products	976	0	0	W	677	282	W	6.8
27	Printing and Publishing	W	0	0	0	0	0	W	0.0
28	Chemicals and Allied Products	281	W	261	W	0	5	W	8.2
29	Petroleum and Coal Products	1,125	0	721	404	0	0	*	5.2
30	Rubber and Misc. Plastics Products	*	0	*	0	0	0	*	10.6
31	Leather and Leather Products	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	21	0	1	12	0	6	Q	25.4
33	Primary Metal Industries	104	W	0	W	0	W	3	18.2
34	Fabricated Metal Products	W	0	0	0	0	W	W	41.7
35	Industrial Machinery and Equipment	*	0	0	0	0	*	*	53.8
36	Electronic and Other Electric Equipment	0	0	0	0	0	0	0	0.0
37	Transportation Equipment	3	0	0	0	0	0	3	46.6
38	Instruments and Related Products	*	0	0	0	0	*	*	45.8
39	Misc. Manufacturing Industries	*	0	0	0	0	*	0	0.0
	Total	2,686	101	984	425	677	459	40	5.4

See footnotes at end of table.

Table A6. Total Inputs of Selected Byproduct Energy for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group	Total	Blast Furnace/ Coke Oven Gases	Waste Gas	Petroleum Coke	Pulping Liquor	Wood Chips, Bark	Waste Oils/Tars And Waste Materials	RSE Row Factors
		West Census Region							
	RSE Column Factors:	*0.7*	*2.0*	*1.1*	*1.1*	*0.6*	*0.8*	*1.2*	
20	Food and Kindred Products	3	0	W	0	0	3	W	26.5
21	Tobacco Products	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	0	0	0	0	0	0	0	0.0
23	Apparel and Other Textile Products	0	0	0	0	0	0	0	0.0
24	Lumber and Wood Products	91	0	0	0	0	89	2	17.2
25	Furniture and Fixtures	*	0	0	0	0	*	0	0.0
26	Paper and Allied Products	150	0	W	W	107	40	W	13.7
27	Printing and Publishing	W	0	0	0	0	0	W	50.0
28	Chemicals and Allied Products	7	W	W	W	0	0	W	21.0
29	Petroleum and Coal Products	460	0	315	145	0	0	*	6.4
30	Rubber and Misc. Plastics Products	*	0	0	0	0	0	*	0.0
31	Leather and Leather Products	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	9	0	0	8	0	0	1	25.6
33	Primary Metal Industries	18	W	0	W	0	*	W	23.7
34	Fabricated Metal Products	0	0	0	0	0	0	0	0.0
35	Industrial Machinery and Equipment	*	0	0	0	0	0	*	0.0
36	Electronic and Other Electric Equipment	*	0	W	0	0	0	W	47.6
37	Transportation Equipment	0	0	0	0	0	0	0	0.0
38	Instruments and Related Products	*	0	*	0	0	0	0	0.0
39	Misc. Manufacturing Industries	W	0	0	0	0	0	W	49.0
	Total	738	W	320	157	107	131	W	8.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • During manufacturing processes, it is possible that the thermal energy content of an energy input is not completely consumed for the production of heat, power, or electricity generation. Hence, residuals of that input may remain. Those residual leftovers may be subsequently consumed for fuel purposes, whether onsite or offsite at another manufacturing establishment (for example, blast furnace gas as a byproduct recovered from coke and other inputs that were not completely consumed). In such cases, double counting of inputs cannot be avoided, and the "Total Inputs" estimates will be inflated.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A6. Total Inputs of Selected Byproduct Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total	Blast Furnace/ Coke Oven Gases	Waste Gas	Petroleum Coke	Pulping Liquor	Wood Chips, Bark	Waste Oils/Tars And Waste Materials	RSE Row Factors
	RSE Column Factors:	0.9	0.8	1.3	1.5	0.6	0.9	1.4	
20	Food and Kindred Products	16	0	2	0	0	8	6	14.3
2011	*Meat Packing Plants*	1	0	W	0	0	0	W	25.5
2033	*Canned Fruits and Vegetables*	*	0	0	0	0	0	*	0.0
2037	*Frozen Fruits and Vegetables*	*	0	0	0	0	0	*	30.3
2046	*Wet Corn Milling*	2	0	W	0	0	W	W	35.5
2051	*Bread, Cake, and Related Products*	*	0	0	0	0	0	*	42.2
2061	*Cane Sugar, Except Refining*	9	0	0	0	0	4	5	19.0
2062	*Cane Sugar Refining*	*	0	0	0	0	*	0	56.5
2063	*Beet Sugar*	W	0	W	0	0	0	0	6.6
2075	*Soybean Oil Mills*	W	0	W	0	0	W	W	0.9
2082	*Malt Beverages*	W	0	W	0	0	0	0	0.9
21	Tobacco Products	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	Q	0	0	0	0	W	W	32.3
23	Apparel and Other Textile Products	*	0	0	0	0	0	*	0.0
24	Lumber and Wood Products	277	0	1	0	0	267	9	12.2
2421	*Sawmills and Planing Mills, General*	152	0	1	0	0	145	6	15.8
2436	*Softwood Veneer and Plywood*	58	0	0	0	0	58	*	19.7
2493	*Reconstituted Wood Products*	32	0	0	0	0	30	2	19.5
25	Furniture and Fixtures	13	0	*	0	0	12	1	16.7
2511	*Wood Furniture, Except Upholstered*	11	0	0	0	0	11	*	16.1
26	Paper and Allied Products	1,300	0	*	12	882	389	16	6.2
2611	*Pulp Mills*	193	0	0	W	151	41	W	15.1
2621	*Paper Mills*	581	0	*	9	380	183	9	9.0
2631	*Paperboard Mills*	520	0	0	1	350	163	7	4.7
27	Printing and Publishing	*	0	0	0	0	W	W	20.1
28	Chemicals and Allied Products	298	*	267	4	0	8	19	7.2
2812	*Alkalies and Chlorine*	0	0	0	0	0	0	0	0.0
2813	*Industrial Gases*	0	0	0	0	0	0	0	0.0
2816	*Inorganic Pigments*	W	0	0	W	0	0	0	17.9
2819	*Industrial Inorganic Chemicals, nec.*	8	0	W	W	0	*	*	15.9
2821	*Plastics Materials and Resins*	24	0	14	0	0	5	6	12.7
2822	*Synthetic Rubber*	W	0	W	0	0	0	0	41.4
2823	*Cellulosic Manmade Fibers*	0	0	0	0	0	0	0	0.0
2824	*Organic Fibers, Noncellulosic*	W	0	W	0	0	0	0	16.9
2861	*Gum and Wood Chemicals*	3	0	0	0	0	W	W	11.4
2865	*Cyclic Crudes and Intermediates*	5	*	2	0	0	0	2	19.4
2869	*Industrial Organic Chemicals, nec.*	249	0	239	0	0	*	10	8.7
2873	*Nitrogenous Fertilizers*	1	0	1	0	0	0	*	22.9
2874	*Phosphatic Fertilizers*	W	0	0	W	0	0	*	8.3
2895	*Carbon Black*	W	0	W	*	0	0	0	21.4
29	Petroleum and Coal Products	2,077	0	1,341	736	0	0	1	5.0
2911	*Petroleum Refining*	2,059	0	1,338	721	0	0	*	4.2
30	Rubber and Misc. Plastics Products	*	0	*	0	0	0	*	14.9
3011	*Tires and Inner Tubes*	*	0	0	0	0	0	*	5.5
308	*Miscellaneous Plastics Products, nec.*	*	0	W	0	0	0	W	33.5
31	Leather and Leather Products	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	57	0	1	48	0	6	3	21.8
3211	*Flat Glass*	*	0	0	0	0	0	*	38.6
3221	*Glass Containers*	0	0	0	0	0	0	0	0.0
3229	*Pressed and Blown Glass, nec.*	0	0	0	0	0	0	0	0.0
3241	*Cement, Hydraulic*	39	0	0	38	0	0	1	12.5
3274	*Lime*	9	0	0	9	0	0	*	27.2
3296	*Mineral Wool*	0	0	0	0	0	0	0	0.0
33	Primary Metal Industries	463	452	W	3	0	*	W	13.5
331	*Blast Furnace and Basic Steel Products*	460	452	0	W	0	0	W	10.7
3312	*Blast Furnaces and Steel Mills*	460	452	0	W	0	0	W	10.7
3313	*Electrometallurgical Products*	0	0	0	0	0	0	0	0.0
3321	*Gray and Ductile Iron Foundries*	*	0	0	0	0	0	*	0.0
3331	*Primary Copper*	W	0	0	W	0	0	*	0.8
3334	*Primary Aluminum*	*	0	0	0	0	*	0	1.2
3339	*Primary Nonferrous Metals, nec.*	1	0	0	*	0	*	0	26.7
3353	*Aluminum Sheet, Plate, and Foil*	W	0	0	0	0	0	W	10.1

See footnotes at end of table.

Table A6. Total Inputs of Selected Byproduct Energy for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 2 (Continued)
(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	Total	Blast Furnace/ Coke Oven Gases	Waste Gas	Petroleum Coke	Pulping Liquor	Wood Chips, Bark	Waste Oils/Tars And Waste Materials	RSE Row Factors
	RSE Column Factors:	0.9	0.8	1.3	1.5	0.6	0.9	1.4	
34	Fabricated Metal Products	*	0	W	0	0	W	W	29.9
35	Industrial Machinery and Equipment	1	0	0	0	0	*	*	20.2
357	*Computer and Office Equipment*	0	0	0	0	0	0	0	0.0
36	Electronic and Other Electric Equipment	*	0	W	0	0	0	W	37.5
37	Transportation Equipment	4	0	*	0	0	0	3	33.0
3711	*Motor Vehicles and Car Bodies*	3	0	0	0	0	0	3	42.2
3714	*Motor Vehicle Parts and Accessories*	1	0	*	0	0	0	*	34.6
38	Instruments and Related Products	1	0	*	0	0	*	*	36.2
3841	*Surgical and Medical Instruments*	*	0	0	0	0	0	*	0.0
39	Misc. Manufacturing Industries	*	0	0	0	0	W	W	33.0
	Total	4,509	452	1,612	802	882	693	67	3.8

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • During manufacturing processes, it is possible that the thermal energy content of an energy input is not completely consumed for the production of heat, power, or electricity generation. Hence, residuals of that input may remain. Those residual leftovers may be subsequently consumed for fuel purposes, whether onsite or offsite at another manufacturing establishment (for example, blast furnace gas as a byproduct recovered from coke and other inputs that were not completely consumed). In such cases, double counting of inputs cannot be avoided, and the "Total Inputs" estimates will be inflated.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A7. Enclosed Floorspace and Conditioned Floorspace by Industry Group and Selected Industries, 1994

(Estimates in Physical Units)

SIC Code[a]	Industry Group and Industry	Approximate Enclosed Floorspace of All Buildings Onsite (million sq ft)	Establishments[b] (counts)	Average Enclosed Floorspace per Establishment (1000 sq ft)	Conditioned[c] Floorspace of All Buildings Onsite		RSE Row Factors
					(million sq ft)	(percents)	
	RSE Column Factors:	2.1	0.3	1.2	2.2	0.6	
20	Food and Kindred Products	1,082.6	14,698	80.8	666.9	61.6	1.9
2011	*Meat Packing Plants*	43.5	759	65.0	33.6	77.1	3.0
2033	*Canned Fruits and Vegetables*	70.0	531	134.3	42.4	60.6	3.8
2037	*Frozen Fruits and Vegetables*	42.2	232	184.4	28.2	66.7	4.0
2046	*Wet Corn Milling*	21.9	58	417.7	11.7	53.6	4.8
2051	*Bread, Cake, and Related Products*	58.5	1,303	51.4	28.3	48.4	4.8
2061	*Cane Sugar, Except Refining*	9.2	43	244.7	0.4	4.6	3.5
2062	*Cane Sugar Refining*	9.3	20	505.3	1.8	19.0	8.3
2063	*Beet Sugar*	11.7	41	311.9	3.3	28.5	2.2
2075	*Soybean Oil Mills*	11.5	95	152.7	3.3	28.6	1.1
2082	*Malt Beverages*	71.4	140	546.6	63.6	89.1	2.4
21	Tobacco Products	38.3	121	316.3	21.0	54.9	6.2
22	Textile Mill Products	480.3	4,428	124.0	329.6	68.6	3.1
23	Apparel and Other Textile Products	469.4	18,019	29.3	369.8	78.8	5.3
24	Lumber and Wood Products	545.9	21,623	31.7	229.3	42.0	3.1
2421	*Sawmills and Planing Mills, General*	131.9	3,545	50.9	33.3	25.2	4.8
2436	*Softwood Veneer and Plywood*	49.8	182	298.8	3.8	7.6	6.5
2493	*Reconstituted Wood Products*	36.8	246	158.9	13.7	37.3	6.5
25	Furniture and Fixtures	490.7	7,691	86.5	362.8	73.9	3.0
2511	*Wood Furniture, Except Upholstered*	131.4	1,548	116.5	90.9	69.2	4.3
26	Paper and Allied Products	707.0	5,582	134.3	442.7	62.6	1.9
2611	*Pulp Mills*	15.9	55	342.6	7.3	46.2	4.3
2621	*Paper Mills*	174.3	310	612.6	110.9	63.7	2.0
2631	*Paperboard Mills*	87.0	219	421.7	33.1	38.1	1.8
27	Printing and Publishing	613.8	37,384	18.3	482.0	78.5	3.2
28	Chemicals and Allied Products	807.5	9,565	91.2	548.3	67.9	2.2
2812	*Alkalies and Chlorine*	5.2	44	122.8	2.0	39.0	2.4
2813	*Industrial Gases*	4.5	623	12.6	2.8	60.8	4.2
2816	*Inorganic Pigments*	10.6	81	133.5	3.5	32.7	3.2
2819	*Industrial Inorganic Chemicals, nec.*	63.4	568	115.2	33.0	52.2	5.7
2821	*Plastics Materials and Resins*	66.4	456	148.7	48.6	73.2	2.6
2822	*Synthetic Rubber*	10.1	63	166.8	5.5	54.1	4.3
2823	*Cellulosic Manmade Fibers*	6.4	11	777.7	5.5	85.3	0.9
2824	*Organic Fibers, Noncellulosic*	78.2	73	1,088.6	61.9	79.1	2.6
2861	*Gum and Wood Chemicals*	3.4	60	85.0	0.4	12.6	2.4
2865	*Cyclic Crudes and Intermediates*	29.1	187	160.7	14.2	48.7	5.4
2869	*Industrial Organic Chemicals, nec.*	113.3	631	193.9	71.0	62.7	2.9
2873	*Nitrogenous Fertilizers*	10.5	118	91.0	3.6	34.6	3.7
2874	*Phosphatic Fertilizers*	11.3	69	163.6	2.1	18.4	1.9
2895	*Carbon Black*	2.0	23	85.3	0.7	34.6	3.0
29	Petroleum and Coal Products	245.2	1,971	136.4	165.8	67.6	3.4
2911	*Petroleum Refining*	182.7	247	855.0	142.0	77.7	2.9
30	Rubber and Misc. Plastics Products	719.8	11,952	64.0	505.7	70.3	2.0
3011	*Tires and Inner Tubes*	64.3	112	589.9	58.5	90.9	2.5
308	*Miscellaneous Plastics Products, nec.*	533.4	9,967	57.3	354.9	66.5	2.5
31	Leather and Leather Products	42.4	1,356	39.0	31.0	73.1	5.3
32	Stone, Clay and Glass Products	611.7	11,970	57.3	240.2	39.3	3.2
3211	*Flat Glass*	46.9	68	710.8	11.3	24.1	6.7
3221	*Glass Containers*	58.7	78	753.1	10.9	18.5	2.7
3229	*Pressed and Blown Glass, nec.*	25.4	163	155.8	14.9	58.6	3.1
3241	*Cement, Hydraulic*	39.0	190	221.7	6.0	15.3	5.0
3274	*Lime*	23.4	84	319.9	1.6	6.7	6.9
3296	*Mineral Wool*	26.9	174	154.6	8.9	33.3	4.0
33	Primary Metal Industries	788.4	5,171	164.7	378.2	48.0	2.4
331	*Blast Furnace and Basic Steel Products*	380.0	981	443.4	177.0	46.6	3.9
3312	*Blast Furnaces and Steel Mills*	281.1	284	1,083.8	114.3	40.7	2.9
3313	*Electrometallurgical Products*	6.7	36	195.2	1.6	23.5	11.0
3321	*Gray and Ductile Iron Foundries*	61.2	517	122.7	30.5	49.8	4.2
3331	*Primary Copper*	8.8	20	469.2	1.2	13.5	0.9
3334	*Primary Aluminum*	31.8	44	944.4	4.1	12.9	1.6
3339	*Primary Nonferrous Metals, nec.*	12.4	88	148.7	3.3	26.5	5.2
3353	*Aluminum Sheet, Plate, and Foil*	43.8	55	815.1	22.6	51.5	2.3
34	Fabricated Metal Products	1,196.3	26,262	48.2	781.3	65.3	3.1
35	Industrial Machinery and Equipment	1,143.3	33,837	36.5	924.3	80.8	2.3
357	*Computer and Office Equipment*	103.3	1,410	76.1	94.9	91.8	4.4
36	Electronic and Other Electric Equipment	671.4	11,264	63.5	555.8	82.8	2.5

See footnotes at end of table.

Table A7. Enclosed Floorspace and Conditioned Floorspace by Industry Group and Selected Industries, 1994 (Continued)

(Estimates in Physical Units)

SIC Code[a]	Industry Group and Industry	Approximate Enclosed Floorspace of All Buildings Onsite (million sq ft)	Establishments[b] (counts)	Average Enclosed Floorspace per Establishment (1000 sq ft)	Conditioned[c] Floorspace of All Buildings Onsite		RSE Row Factors
					(million sq ft)	(percents)	
	RSE Column Factors:	2.1	0.3	1.2	2.2	0.6	
37	*Transportation Equipment*	1,060.4	7,240	154.5	891.2	84.0	2.9
3711	*Motor Vehicles and Car Bodies*	171.6	322	535.6	150.2	87.6	5.7
3714	*Motor Vehicle Parts and Accessories*	263.2	2,062	128.8	228.0	86.6	3.0
38	Instruments and Related Products	387.2	7,071	58.1	346.0	89.4	3.2
3841	*Surgical and Medical Instruments*	34.0	878	41.6	28.3	83.3	4.6
39	Misc. Manufacturing Industries	227.5	9,994	23.7	163.8	72.0	4.4
	Total	12,329.0	247,199	55.2	8,435.8	68.4	1.3

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] The "Establishments (counts)" column includes those units which reported floorspace, plus those units where floorspace was not ascertained. To obtain the number of reporting establishments for any SIC, divide the entry in the "Approximate Enclosed Floorspace " column by the corresponding entry in the "Average Enclosed Floorspace" column. For example, in the "Total" row, (12,329.0 million sq ft) divided by (55.2 thousand sq ft) equals 223,351, which is the number of reporting establishments (weighted) of the 247,199 total establishments.

[c] "Conditioned" floorspace is that enclosed square footage that had controlled heating or cooling through the use of equipment designed to modify the internal building temperature.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
20-39	**ALL INDUSTRY GROUPS**									
	RSE Column Factors:	NF	0.5	1.3	1.4	0.8	1.2	1.2	NF	
	TOTAL INPUTS	16,515	778,335	70,111	26,107	5,962	25,949	54,143	5,828	2.7
	Indirect Uses-Boiler Fuel	--	8,250	49,731	7,296	2,326	3,829	39,496	--	4.0
	Direct Uses-Total Process	--	608,190	16,825	8,795	2,788	14,051	13,697	--	3.8
	Process Heating	--	83,151	16,326	4,919	2,623	12,515	13,545	--	4.1
	Process Cooling and Refrigeration	--	40,583	19	44	20	413	3	--	17.5
	Machine Drive	--	400,545	406	3,161	93	869	149	--	7.7
	Electro-Chemical Processes	--	79,549	--	--	--	--	--	--	1.1
	Other Process Use	--	4,363	74	671	52	254	Q	--	16.1
	Direct Uses-Total Nonprocess	--	134,020	2,197	8,394	705	6,860	378	--	5.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	63,662	777	1,274	341	1,373	118	--	6.5
	Facility Lighting	--	54,332	--	--	--	--	--	--	1.1
	Facility Support	--	13,545	455	203	29	156	1	--	12.1
	Onsite Transportation	--	1,192	--	5,997	1	5,168	--	--	3.9
	Conventional Electricity Generation	--	--	797	604	325	119	259	--	8.3
	Other Nonprocess Use	--	1,290	167	316	9	44	0	--	17.0
	End Use Not Reported	6,106	27,874	1,359	1,622	143	1,209	571	5,828	8.8
20	**FOOD and KINDRED PRODUCTS**									
	RSE Column Factors:	NF	0.6	1.3	1.8	0.9	1.2	0.7	NF	
	TOTAL INPUTS	1,183	58,004	4,785	3,180	611	1,707	7,500	136	5.8
	Indirect Uses-Boiler Fuel	--	946	4,214	1,637	355	444	6,966	--	8.1
	Direct Uses-Total Process	--	44,632	447	371	182	537	458	--	7.9
	Process Heating	--	2,349	413	133	173	471	W	--	9.0
	Process Cooling and Refrigeration	--	14,071	0	39	1	W	0	--	12.5
	Machine Drive	--	27,988	7	170	6	34	W	--	15.2
	Electro-Chemical Processes	--	95	--	--	--	--	--	--	1.7
	Other Process Use	--	128	27	28	1	W	Q	--	19.2
	Direct Uses-Total Nonprocess	--	9,336	59	989	55	626	47	--	10.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	4,206	W	138	34	99	W	--	15.4
	Facility Lighting	--	3,882	--	--	--	--	--	--	1.2
	Facility Support	--	1,021	Q	33	5	32	W	--	21.0
	Onsite Transportation	--	138	--	525	*	491	--	--	4.4
	Conventional Electricity Generation	--	--	W	243	15	*	43	--	12.1
	Other Nonprocess Use	--	90	0	Q	1	Q	0	--	47.0
	End Use Not Reported	169	3,090	65	183	20	Q	Q	136	16.2
2011	**Meat Packing Plants**									
	RSE Column Factors:	NF	1.0	1.1	1.6	0.9	1.5	0.4	NF	
	TOTAL INPUTS	53	3,924	138	101	35	W	W	2	12.2
	Indirect Uses-Boiler Fuel	--	38	138	37	25	60	*	--	14.9
	Direct Uses-Total Process	--	3,347	*	17	8	39	W	--	15.1
	Process Heating	--	40	*	*	7	39	W	--	17.0
	Process Cooling and Refrigeration	--	2,081	0	Q	*	0	0	--	13.5
	Machine Drive	--	1,222	0	0	*	*	0	--	13.9
	Electro-Chemical Processes	--	1	--	--	--	--	--	--	1.8
	Other Process Use	--	3	0	14	*	*	0	--	28.8
	Direct Uses-Total Nonprocess	--	440	*	Q	2	W	W	--	12.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	180	*	*	2	3	W	--	16.9
	Facility Lighting	--	190	--	--	--	--	--	--	1.4
	Facility Support	--	57	*	*	*	W	0	--	25.8
	Onsite Transportation	--	Q	--	22	0	5	--	--	4.5
	Conventional Electricity Generation	--	--	0	0	*	0	0	--	6.0
	Other Nonprocess Use	--	0	0	Q	0	*	0	--	0.0
	End Use Not Reported	3	Q	0	0	1	*	0	2	29.7

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2033	**Canned Fruits and Vegetables**									
	RSE Column Factors:	NF	0.8	0.8	1.8	0.9	1.2	0.8	NF	
	TOTAL INPUTS	51	1,432	241	119	42	W	W	*	13.6
	Indirect Uses-Boiler Fuel	--	39	218	26	34	*	W	--	20.9
	Direct Uses-Total Process	--	1,129	22	7	2	5	0	--	24.1
	Process Heating	--	45	22	0	1	Q	0	--	29.0
	Process Cooling and Refrigeration	--	204	0	0	*	0	0	--	22.3
	Machine Drive	--	864	0	7	*	2	0	--	21.6
	Electro-Chemical Processes	--	13	--	--	--	--	--	--	1.8
	Other Process Use	--	4	0	0	*	0	0	--	42.9
	Direct Uses-Total Nonprocess	--	252	*	78	6	W	0	--	12.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	92	*	*	2	W	0	--	17.2
	Facility Lighting	--	124	--	--	--	--	--	--	1.4
	Facility Support	--	29	0	*	*	W	0	--	20.3
	Onsite Transportation	--	7	--	44	0	100	--	--	5.7
	Conventional Electricity Generation	--	--	0	34	4	0	0	--	9.6
	Other Nonprocess Use	--	0	0	0	0	*	0	--	0.0
	End Use Not Reported	1	Q	*	Q	*	6	0	*	21.5
2037	**Frozen Fruits and Vegetables**									
	RSE Column Factors:	NF	1.0	1.1	1.8	0.8	1.5	0.4	NF	
	TOTAL INPUTS	42	2,901	204	62	27	74	0	2	13.5
	Indirect Uses-Boiler Fuel	--	47	119	39	20	25	0	--	19.1
	Direct Uses-Total Process	--	2,498	Q	4	5	14	0	--	13.2
	Process Heating	--	134	Q	Q	5	11	0	--	18.1
	Process Cooling and Refrigeration	--	1,306	0	Q	*	0	0	--	16.6
	Machine Drive	--	1,046	0	*	*	3	0	--	13.2
	Electro-Chemical Processes	--	1	--	--	--	--	--	--	1.8
	Other Process Use	--	10	0	1	0	0	0	--	23.2
	Direct Uses-Total Nonprocess	--	356	1	12	1	34	0	--	15.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	140	1	1	1	Q	0	--	20.8
	Facility Lighting	--	167	--	--	--	--	--	--	1.5
	Facility Support	--	42	1	0	*	*	0	--	26.5
	Onsite Transportation	--	5	--	11	0	29	--	--	5.9
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	4.3
	Other Nonprocess Use	--	1	0	*	0	0	0	--	33.3
	End Use Not Reported	2	*	Q	6	*	Q	0	2	26.6
2046	**Wet Corn Milling**									
	RSE Column Factors:	NF	1.1	0.8	1.7	0.9	1.4	0.5	NF	
	TOTAL INPUTS	173	5,662	169	10	67	9	3,556	5	18.1
	Indirect Uses-Boiler Fuel	--	101	169	4	34	*	3,556	--	24.3
	Direct Uses-Total Process	--	5,082	0	3	32	8	0	--	16.0
	Process Heating	--	14	0	2	32	8	0	--	23.6
	Process Cooling and Refrigeration	--	28	0	0	0	0	0	--	19.5
	Machine Drive	--	5,040	0	1	0	0	0	--	14.8
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	356	0	3	*	1	0	--	13.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	133	0	*	*	*	0	--	17.9
	Facility Lighting	--	166	--	--	--	--	--	--	1.5
	Facility Support	--	39	0	*	*	0	0	--	25.5
	Onsite Transportation	--	1	--	3	0	1	--	--	6.9
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	4.5
	Other Nonprocess Use	--	18	0	0	*	0	0	--	40.6
	End Use Not Reported	6	123	0	0	*	*	0	5	32.3

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2051	**Bread, Cake, and Related Products**									
	RSE Column Factors:	NF	1.0	0.4	2.2	1.2	2.1	0.4	NF	
	TOTAL INPUTS	37	2,436	Q	131	26	89	0	*	11.0
	Indirect Uses-Boiler Fuel	--	41	Q	Q	4	Q	0	--	17.3
	Direct Uses-Total Process	--	1,657	Q	19	18	Q	0	--	10.4
	Process Heating	--	181	Q	13	18	Q	0	--	14.2
	Process Cooling and Refrigeration	--	391	0	0	*	0	0	--	22.7
	Machine Drive	--	1,077	0	0	*	0	0	--	8.4
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	1.0
	Other Process Use	--	Q	0	6	*	0	0	--	20.7
	Direct Uses-Total Nonprocess	--	628	0	87	3	11	0	--	12.3
	Facility Heating, Ventilation, and Air Conditioning[f]	--	254	0	Q	2	2	0	--	12.8
	Facility Lighting	--	275	--	--	--	--	--	--	1.4
	Facility Support	--	93	0	*	*	*	0	--	18.3
	Onsite Transportation	--	4	--	49	0	8	--	--	8.6
	Conventional Electricity Generation	--	--	0	13	1	*	0	--	9.1
	Other Nonprocess Use	--	Q	0	Q	0	0	0	--	0.0
	End Use Not Reported	2	110	0	0	1	Q	0	*	29.5
2061	**Cane Sugar, Except Refining**									
	RSE Column Factors:	NF	1.4	0.9	1.0	0.8	1.3	0.8	NF	
	TOTAL INPUTS	105	W	W	220	2	W	W	99	18.1
	Indirect Uses-Boiler Fuel	--	S	348	22	2	1	W	--	19.9
	Direct Uses-Total Process	--	W	5	23	*	*	0	--	26.8
	Process Heating	--	S	W	16	*	0	0	--	26.9
	Process Cooling and Refrigeration	--	S	0	0	0	0	0	--	26.3
	Machine Drive	--	Q	W	6	0	0	0	--	24.4
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.8
	Other Process Use	--	W	0	0	0	*	0	--	23.0
	Direct Uses-Total Nonprocess	--	S	W	140	W	W	0	--	21.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	S	0	0	W	W	0	--	21.4
	Facility Lighting	--	Q	--	--	--	--	--	--	1.1
	Facility Support	--	Q	0	0	*	0	0	--	27.5
	Onsite Transportation	--	0	--	82	0	*	--	--	4.7
	Conventional Electricity Generation	--	--	W	58	0	0	0	--	8.1
	Other Nonprocess Use	--	S	0	*	0	0	0	--	21.5
	End Use Not Reported	100	W	W	35	W	*	0	99	25.4
2062	**Cane Sugar Refining**									
	RSE Column Factors:	NF	1.3	0.8	1.7	1.0	1.4	0.4	NF	
	TOTAL INPUTS	23	125	313	97	16	4	0	4	20.9
	Indirect Uses-Boiler Fuel	--	6	307	24	15	*	0	--	22.8
	Direct Uses-Total Process	--	108	6	70	1	*	0	--	25.4
	Process Heating	--	3	5	3	1	*	0	--	27.6
	Process Cooling and Refrigeration	--	3	0	0	0	0	0	--	28.3
	Machine Drive	--	102	1	67	0	0	0	--	30.7
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.1
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	11	0	4	*	4	0	--	21.7
	Facility Heating, Ventilation, and Air Conditioning[f]	--	4	0	0	*	0	0	--	33.0
	Facility Lighting	--	5	--	--	--	--	--	--	1.7
	Facility Support	--	2	0	1	0	0	0	--	22.3
	Onsite Transportation	--	*	--	2	0	4	--	--	8.5
	Conventional Electricity Generation	--	--	0	1	0	0	0	--	4.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	4	0	0	0	0	*	0	4	34.8

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2063	**Beet Sugar**									
	RSE Column Factors:	NF	0.9	0.9	1.2	1.0	1.1	1.0	NF	
	TOTAL INPUTS	64	425	270	W	18	W	1,790	2	3.1
	Indirect Uses-Boiler Fuel	--	W	115	*	12	0	1,330	--	5.3
	Direct Uses-Total Process	--	382	155	W	6	1	432	--	5.0
	Process Heating	--	S	155	W	6	W	W	--	6.0
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	11.0
	Machine Drive	--	385	0	0	*	W	W	--	7.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	37	0	18	*	W	28	--	3.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	9	0	0	*	W	W	--	5.8
	Facility Lighting	--	19	--	--	--	--	--	--	1.2
	Facility Support	--	9	0	0	*	W	W	--	6.6
	Onsite Transportation	--	*	--	17	0	3	--	--	2.6
	Conventional Electricity Generation	--	--	0	*	*	0	W	--	4.8
	Other Nonprocess Use	--	0	0	0	0	*	0	--	9.2
	End Use Not Reported	W	W	0	0	0	*	0	2	9.0
2075	**Soybean Oil Mills**									
	RSE Column Factors:	NF	1.4	0.8	1.2	1.0	0.9	0.9	NF	
	TOTAL INPUTS	56	1,845	147	W	29	W	682	3	1.3
	Indirect Uses-Boiler Fuel	--	41	W	35	21	W	W	--	1.4
	Direct Uses-Total Process	--	1,679	0	W	7	W	W	--	1.0
	Process Heating	--	28	0	W	6	0	W	--	0.9
	Process Cooling and Refrigeration	--	114	0	0	0	0	0	--	2.9
	Machine Drive	--	1,534	0	W	0	0	0	--	0.8
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.0
	Other Process Use	--	3	0	0	1	W	0	--	1.0
	Direct Uses-Total Nonprocess	--	124	W	9	W	W	W	--	1.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	55	W	0	W	W	0	--	1.0
	Facility Lighting	--	53	--	--	--	--	--	--	1.2
	Facility Support	--	16	*	0	*	0	0	--	1.0
	Onsite Transportation	--	1	--	W	0	W	--	--	2.1
	Conventional Electricity Generation	--	--	0	W	W	0	W	--	0.9
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	1	0	*	W	*	0	3	0.9
2082	**Malt Beverages**									
	RSE Column Factors:	NF	1.7	0.2	2.3	1.5	1.3	0.6	NF	
	TOTAL INPUTS	51	2,311	W	21	21	W	789	*	6.8
	Indirect Uses-Boiler Fuel	--	W	W	14	19	W	789	--	9.0
	Direct Uses-Total Process	--	1,829	W	*	2	W	0	--	7.9
	Process Heating	--	W	W	0	2	W	0	--	16.5
	Process Cooling and Refrigeration	--	774	0	*	0	0	0	--	5.7
	Machine Drive	--	1,009	0	0	0	0	0	--	4.2
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.1
	Other Process Use	--	W	0	0	0	0	0	--	0.6
	Direct Uses-Total Nonprocess	--	387	W	6	1	W	0	--	10.3
	Facility Heating, Ventilation, and Air Conditioning[f]	--	162	W	2	1	W	0	--	8.1
	Facility Lighting	--	160	--	--	--	--	--	--	1.5
	Facility Support	--	W	0	0	0	0	0	--	13.8
	Onsite Transportation	--	10	--	4	*	W	--	--	5.8
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.6
	Other Nonprocess Use	--	W	0	*	0	0	0	--	2.1
	End Use Not Reported	W	W	0	0	0	*	0	*	12.0

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
21	**TOBACCO PRODUCTS**									
	RSE Column Factors:	NF	1.0	0.9	1.7	0.8	1.4	0.6	NF	
	TOTAL INPUTS	W	842	133	W	W	W	W	W	23.5
	Indirect Uses-Boiler Fuel	--	W	119	17	2	W	W	--	25.8
	Direct Uses-Total Process	--	531	8	W	1	*	0	--	26.3
	Process Heating	--	13	7	*	1	*	0	--	26.5
	Process Cooling and Refrigeration	--	26	1	0	*	0	0	--	35.9
	Machine Drive	--	545	0	W	*	0	0	--	28.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	Q	0	0	*	0	0	--	45.6
	Direct Uses-Total Nonprocess	--	304	6	1	W	14	0	--	29.8
	Facility Heating, Ventilation, and Air Conditioning	--	212	4	0	W	Q	0	--	40.6
	Facility Lighting	--	91	--	--	--	--	--	--	1.6
	Facility Support	--	Q	2	0	*	0	0	--	42.6
	Onsite Transportation	--	0	--	*	0	13	--	--	5.4
	Conventional Electricity Generation	--	--	0	1	0	0	0	--	4.8
	Other Nonprocess Use	--	0	0	*	0	*	0	--	24.6
	End Use Not Reported	*	W	0	0	0	0	0	W	0.0
22	**TEXTILE MILL PRODUCTS**									
	RSE Column Factors:	NF	0.9	0.8	1.3	0.9	1.2	0.9	NF	
	TOTAL INPUTS	310	32,614	2,680	W	113	W	1,821	14	11.9
	Indirect Uses-Boiler Fuel	--	315	2,360	1,000	67	W	1,794	--	15.9
	Direct Uses-Total Process	--	22,194	168	W	35	728	0	--	15.1
	Process Heating	--	1,451	125	W	32	695	0	--	19.4
	Process Cooling and Refrigeration	--	1,965	0	0	*	0	0	--	13.2
	Machine Drive	--	18,502	Q	Q	Q	Q	0	--	6.6
	Electro-Chemical Processes	--	53	--	--	--	--	--	--	1.9
	Other Process Use	--	223	0	0	*	Q	0	--	54.0
	Direct Uses-Total Nonprocess	--	8,490	W	82	7	224	W	--	18.8
	Facility Heating, Ventilation, and Air Conditioning	--	4,592	W	53	7	W	W	--	17.1
	Facility Lighting	--	3,169	--	--	--	--	--	--	1.4
	Facility Support	--	664	W	*	W	W	0	--	27.6
	Onsite Transportation	--	49	--	3	*	W	--	--	8.2
	Conventional Electricity Generation	--	--	0	W	W	W	W	--	14.4
	Other Nonprocess Use	--	15	Q	W	0	0	0	--	35.4
	End Use Not Reported	23	1,615	W	W	3	8	W	14	26.6
23	**APPAREL and OTHER TEXTILE PRODUCTS**									
	RSE Column Factors:	NF	1.3	0.8	1.7	0.9	1.6	0.4	NF	
	TOTAL INPUTS	56	7,735	W	106	24	W	W	W	16.3
	Indirect Uses-Boiler Fuel	--	W	27	50	9	Q	W	--	26.4
	Direct Uses-Total Process	--	3,324	W	W	6	Q	0	--	10.4
	Process Heating	--	211	0	Q	4	Q	0	--	17.4
	Process Cooling and Refrigeration	--	91	0	0	*	0	0	--	19.5
	Machine Drive	--	3,017	W	W	2	Q	0	--	14.5
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	1.1
	Other Process Use	--	Q	0	W	*	*	0	--	53.1
	Direct Uses-Total Nonprocess	--	3,291	0	42	7	61	0	--	16.4
	Facility Heating, Ventilation, and Air Conditioning	--	1,753	0	42	7	37	0	--	20.0
	Facility Lighting	--	1,260	--	--	--	--	--	--	1.6
	Facility Support	--	241	0	*	1	Q	0	--	17.0
	Onsite Transportation	--	10	--	1	0	23	--	--	8.0
	Conventional Electricity Generation	--	--	0	0	*	0	0	--	0.8
	Other Nonprocess Use	--	Q	0	*	*	0	0	--	0.0
	End Use Not Reported	6	W	0	W	2	W	0	W	19.3

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
24	**LUMBER and WOOD PRODUCTS**									
	RSE Column Factors:	NF	0.8	1.4	1.4	0.8	1.1	0.7	NF	
	TOTAL INPUTS	435	19,836	W	3,793	47	W	W	290	8.9
	Indirect Uses-Boiler Fuel	--	266	213	206	15	W	W	--	19.5
	Direct Uses-Total Process	--	15,492	19	1,828	23	370	0	--	11.8
	Process Heating	--	866	19	99	20	251	0	--	14.7
	Process Cooling and Refrigeration	--	103	0	0	*	W	0	--	21.8
	Machine Drive	--	14,354	0	1,459	1	104	0	--	12.7
	Electro-Chemical Processes	--	7	--	--	--	--	--	--	1.8
	Other Process Use	--	161	0	Q	Q	W	0	--	22.2
	Direct Uses-Total Nonprocess	--	2,541	W	1,370	7	544	0	--	10.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	928	W	Q	6	89	0	--	15.5
	Facility Lighting	--	1,316	--	--	--	--	--	--	1.3
	Facility Support	--	262	0	Q	*	1	0	--	23.3
	Onsite Transportation	--	18	--	1,140	*	454	--	--	4.5
	Conventional Electricity Generation	--	--	0	49	*	0	0	--	5.3
	Other Nonprocess Use	--	Q	0	75	*	*	0	--	35.2
	End Use Not Reported	300	1,537	0	389	3	60	0	290	16.0
2421	**Sawmills and Planing Mills, General**									
	RSE Column Factors:	NF	0.7	1.0	1.4	1.1	1.5	0.6	NF	
	TOTAL INPUTS	198	6,556	W	1,206	11	W	0	157	13.0
	Indirect Uses-Boiler Fuel	--	Q	10	48	5	W	0	--	27.6
	Direct Uses-Total Process	--	5,167	*	377	5	16	0	--	14.3
	Process Heating	--	237	*	62	5	4	0	--	20.0
	Process Cooling and Refrigeration	--	Q	0	0	*	W	0	--	0.0
	Machine Drive	--	4,898	0	315	*	12	0	--	14.4
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	0.9
	Other Process Use	--	Q	0	0	0	W	0	--	31.7
	Direct Uses-Total Nonprocess	--	725	W	662	*	62	0	--	13.6
	Facility Heating, Ventilation, and Air Conditioning[f]	--	277	W	5	*	Q	0	--	22.2
	Facility Lighting	--	342	--	--	--	--	--	--	1.4
	Facility Support	--	90	0	Q	*	*	0	--	18.4
	Onsite Transportation	--	Q	--	638	0	46	--	--	3.6
	Conventional Electricity Generation	--	--	0	Q	0	0	0	--	1.4
	Other Nonprocess Use	--	Q	0	1	0	*	0	--	23.9
	End Use Not Reported	161	667	0	120	*	9	0	157	24.9
2436	**Softwood Veneer and Plywood**									
	RSE Column Factors:	NF	1.6	0.4	1.8	1.5	1.4	0.4	NF	
	TOTAL INPUTS	73	2,517	Q	251	3	168	0	60	7.7
	Indirect Uses-Boiler Fuel	--	76	Q	Q	*	5	0	--	11.9
	Direct Uses-Total Process	--	2,074	0	40	2	28	0	--	11.5
	Process Heating	--	156	0	0	2	*	0	--	12.0
	Process Cooling and Refrigeration	--	11	0	0	0	0	0	--	8.2
	Machine Drive	--	1,904	0	W	0	W	0	--	12.6
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.8
	Other Process Use	--	W	0	W	0	W	0	--	12.5
	Direct Uses-Total Nonprocess	--	276	0	164	*	126	0	--	11.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	81	0	*	*	1	0	--	15.4
	Facility Lighting	--	171	--	--	--	--	--	--	1.6
	Facility Support	--	24	0	0	0	0	0	--	10.1
	Onsite Transportation	--	*	--	121	0	124	--	--	5.5
	Conventional Electricity Generation	--	--	0	42	0	0	0	--	3.6
	Other Nonprocess Use	--	*	0	1	0	0	0	--	13.6
	End Use Not Reported	60	91	0	7	*	9	0	60	19.3

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2493	**Reconstituted Wood Products**									
	RSE Column Factors:	NF	1.1	1.2	1.3	0.8	1.2	0.6	NF	
	TOTAL INPUTS	71	4,453	W	W	17	W	W	33	13.1
	Indirect Uses-Boiler Fuel	--	W	171	22	5	W	W	--	18.4
	Direct Uses-Total Process	--	3,883	19	45	11	242	0	--	16.1
	Process Heating	--	233	19	Q	9	232	0	--	16.6
	Process Cooling and Refrigeration	--	33	0	0	0	0	0	--	16.4
	Machine Drive	--	3,461	0	23	1	8	0	--	18.4
	Electro-Chemical Processes	--	4	--	--	--	--	--	--	1.9
	Other Process Use	--	151	0	0	Q	Q	0	--	22.8
	Direct Uses-Total Nonprocess	--	372	W	57	1	81	0	--	14.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	135	W	0	1	10	0	--	19.6
	Facility Lighting	--	202	--	--	--	--	--	--	1.5
	Facility Support	--	W	0	*	*	*	0	--	24.9
	Onsite Transportation	--	W	--	56	0	71	--	--	4.7
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	4.2
	Other Nonprocess Use	--	Q	0	0	0	0	0	--	0.0
	End Use Not Reported	34	W	0	W	1	3	0	33	36.0
25	**FURNITURE and FIXTURES**									
	RSE Column Factors:	NF	0.8	1.1	1.3	0.7	1.1	1.2	NF	
	TOTAL INPUTS	65	6,590	60	153	23	211	115	14	11.7
	Indirect Uses-Boiler Fuel	--	73	40	72	4	3	98	--	20.5
	Direct Uses-Total Process	--	3,957	14	Q	8	48	9	--	18.7
	Process Heating	--	245	12	2	8	25	8	--	23.8
	Process Cooling and Refrigeration	--	83	0	0	*	0	0	--	38.6
	Machine Drive	--	3,532	2	Q	*	23	1	--	25.8
	Electro-Chemical Processes	--	30	--	--	--	--	--	--	1.8
	Other Process Use	--	67	0	0	*	*	0	--	45.7
	Direct Uses-Total Nonprocess	--	2,050	Q	65	9	143	1	--	14.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	814	Q	44	9	17	1	--	19.3
	Facility Lighting	--	1,028	--	--	--	--	--	--	1.4
	Facility Support	--	191	0	0	*	*	0	--	20.0
	Onsite Transportation	--	14	--	21	0	W	--	--	5.1
	Conventional Electricity Generation	--	--	0	0	0	W	0	--	6.9
	Other Nonprocess Use	--	3	0	*	*	2	0	--	39.8
	End Use Not Reported	18	511	Q	5	2	17	Q	14	30.2
2511	**Wood Furniture, Except Upholstered**									
	RSE Column Factors:	NF	0.6	1.1	1.2	1.0	1.4	1.0	NF	
	TOTAL INPUTS	24	2,146	47	62	2	59	56	12	15.8
	Indirect Uses-Boiler Fuel	--	41	32	21	*	1	42	--	25.3
	Direct Uses-Total Process	--	1,555	14	2	*	7	8	--	33.1
	Process Heating	--	58	11	Q	*	6	6	--	37.3
	Process Cooling and Refrigeration	--	8	0	0	0	0	0	--	46.6
	Machine Drive	--	1,455	2	1	*	1	1	--	31.3
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	0.9
	Other Process Use	--	34	0	0	*	0	0	--	57.1
	Direct Uses-Total Nonprocess	--	411	2	34	1	48	1	--	23.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	125	2	Q	1	Q	1	--	28.6
	Facility Lighting	--	238	--	--	--	--	--	--	1.4
	Facility Support	--	45	0	0	*	*	0	--	30.6
	Onsite Transportation	--	2	--	20	0	W	--	--	5.8
	Conventional Electricity Generation	--	--	0	0	0	W	0	--	7.4
	Other Nonprocess Use	--	0	0	*	*	1	0	--	32.6
	End Use Not Reported	13	139	0	4	*	3	Q	12	39.1

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
26	**PAPER and ALLIED PRODUCTS**									
	RSE Column Factors:	NF	0.6	1.1	1.2	0.7	1.4	1.3	NF	
	TOTAL INPUTS	2,634	65,479	27,444	1,560	558	1,315	13,812	1,343	3.5
	Indirect Uses-Boiler Fuel	--	1,341	21,946	783	390	140	13,470	--	5.4
	Direct Uses-Total Process	--	55,913	5,023	W	112	420	W	--	6.8
	Process Heating	--	1,664	4,787	234	99	335	W	--	8.1
	Process Cooling and Refrigeration	--	933	0	0	1	0	0	--	12.0
	Machine Drive	--	52,375	236	88	10	81	W	--	13.3
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	0.9
	Other Process Use	--	789	0	W	2	4	0	--	15.2
	Direct Uses-Total Nonprocess	--	6,890	251	415	49	681	W	--	6.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	3,090	W	83	16	W	W	--	11.6
	Facility Lighting	--	2,949	--	--	--	--	--	--	1.2
	Facility Support	--	728	W	2	1	12	0	--	16.6
	Onsite Transportation	--	69	--	326	*	626	--	--	2.5
	Conventional Electricity Generation	--	--	W	3	30	W	W	--	9.8
	Other Nonprocess Use	--	53	W	*	2	15	0	--	25.3
	End Use Not Reported	1,357	1,335	224	W	7	74	W	1,343	13.0
2611	**Pulp Mills**									
	RSE Column Factors:	NF	1.3	0.7	1.2	1.0	1.2	0.7	NF	
	TOTAL INPUTS	251	2,190	3,583	W	21	W	328	190	13.0
	Indirect Uses-Boiler Fuel	--	142	2,806	111	14	32	328	--	16.5
	Direct Uses-Total Process	--	1,870	692	32	7	27	0	--	13.3
	Process Heating	--	24	692	11	7	24	0	--	16.2
	Process Cooling and Refrigeration	--	14	0	0	0	0	0	--	19.5
	Machine Drive	--	1,794	0	21	*	3	0	--	19.0
	Electro-Chemical Processes	--	24	--	--	--	--	--	--	1.8
	Other Process Use	--	13	0	0	0	1	0	--	22.2
	Direct Uses-Total Nonprocess	--	178	0	32	1	10	0	--	12.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	86	0	3	1	0	0	--	19.7
	Facility Lighting	--	76	--	--	--	--	--	--	1.5
	Facility Support	--	13	0	0	*	1	0	--	21.0
	Onsite Transportation	--	0	--	30	0	8	--	--	3.7
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.8
	Other Nonprocess Use	--	3	0	0	0	0	0	--	18.8
	End Use Not Reported	191	*	84	W	0	W	0	190	30.3
2621	**Paper Mills**									
	RSE Column Factors:	NF	0.7	1.0	1.1	0.8	1.1	1.4	NF	
	TOTAL INPUTS	1,292	34,419	14,942	744	263	465	8,783	609	5.2
	Indirect Uses-Boiler Fuel	--	351	12,130	337	189	W	W	--	9.0
	Direct Uses-Total Process	--	31,031	2,740	208	47	192	W	--	9.6
	Process Heating	--	365	2,661	152	43	186	W	--	12.1
	Process Cooling and Refrigeration	--	312	0	0	*	0	0	--	20.9
	Machine Drive	--	29,820	80	55	W	6	W	--	13.8
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	0.9
	Other Process Use	--	519	0	1	W	0	0	--	25.0
	Direct Uses-Total Nonprocess	--	2,443	W	189	25	195	W	--	8.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1,138	W	W	3	4	W	--	11.5
	Facility Lighting	--	974	--	--	--	--	--	--	1.3
	Facility Support	--	280	W	*	*	*	0	--	18.0
	Onsite Transportation	--	17	--	184	0	189	--	--	3.3
	Conventional Electricity Generation	--	--	W	W	22	0	W	--	10.7
	Other Nonprocess Use	--	33	W	*	*	2	0	--	25.7
	End Use Not Reported	614	594	W	10	2	W	0	609	16.8

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2631	**Paperboard Mills**									
	RSE Column Factors:	NF	0.9	1.0	1.1	0.9	1.0	1.2	NF	
	TOTAL INPUTS	930	13,512	7,914	W	194	W	4,552	531	2.6
	Indirect Uses-Boiler Fuel	--	660	6,215	181	145	W	W	--	4.8
	Direct Uses-Total Process	--	11,788	1,425	W	35	22	W	--	5.0
	Process Heating	--	205	W	*	30	18	W	--	6.8
	Process Cooling and Refrigeration	--	80	0	0	W	0	0	--	8.3
	Machine Drive	--	11,216	W	W	W	W	0	--	7.6
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.5
	Other Process Use	--	W	0	W	0	W	0	--	12.0
	Direct Uses-Total Nonprocess	--	865	W	107	11	84	W	--	6.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	318	W	W	W	1	0	--	7.7
	Facility Lighting	--	446	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	W	*	0	0	--	9.7
	Onsite Transportation	--	*	--	105	0	83	--	--	2.7
	Conventional Electricity Generation	--	--	W	W	8	0	W	--	7.7
	Other Nonprocess Use	--	W	0	*	W	0	0	--	13.3
	End Use Not Reported	535	199	W	W	2	W	W	531	10.9
27	**PRINTING and PUBLISHING**									
	RSE Column Factors:	NF	0.7	1.2	1.8	0.9	1.7	0.4	NF	
	TOTAL INPUTS	112	17,409	W	261	46	W	0	2	7.8
	Indirect Uses-Boiler Fuel	--	69	33	101	10	W	0	--	14.0
	Direct Uses-Total Process	--	9,103	W	Q	16	83	0	--	8.2
	Process Heating	--	463	0	Q	14	55	0	--	11.3
	Process Cooling and Refrigeration	--	712	0	0	*	0	0	--	15.4
	Machine Drive	--	7,849	0	*	1	26	0	--	13.0
	Electro-Chemical Processes	--	51	--	--	--	--	--	--	1.6
	Other Process Use	--	28	W	*	*	3	0	--	28.7
	Direct Uses-Total Nonprocess	--	6,515	W	133	15	205	0	--	11.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	3,452	W	93	13	87	0	--	11.4
	Facility Lighting	--	2,193	--	--	--	--	--	--	1.3
	Facility Support	--	789	5	1	1	4	0	--	15.6
	Onsite Transportation	--	46	--	W	*	101	--	--	5.4
	Conventional Electricity Generation	--	--	0	W	*	0	0	--	10.3
	Other Nonprocess Use	--	34	0	*	*	Q	0	--	35.4
	End Use Not Reported	13	1,723	0	24	5	17	0	2	16.8
28	**CHEMICALS and ALLIED PRODUCTS**									
	RSE Column Factors:	NF	0.6	1.2	1.0	0.8	1.5	1.0	NF	
	TOTAL INPUTS	3,273	152,482	9,567	2,201	1,840	W	11,597	W	6.1
	Indirect Uses-Boiler Fuel	--	2,353	5,944	1,264	904	402	11,050	--	9.3
	Direct Uses-Total Process	--	135,769	2,845	W	686	412	453	--	8.8
	Process Heating	--	6,040	2,835	259	619	336	W	--	9.5
	Process Cooling and Refrigeration	--	9,498	*	2	10	W	*	--	24.5
	Machine Drive	--	99,621	*	97	38	Q	W	--	16.6
	Electro-Chemical Processes	--	20,370	--	--	--	--	--	--	1.3
	Other Process Use	--	241	Q	W	19	W	0	--	20.2
	Direct Uses-Total Nonprocess	--	12,526	W	497	223	252	W	--	10.3
	Facility Heating, Ventilation, and Air Conditioning[f]	--	6,199	W	67	16	44	24	--	15.7
	Facility Lighting	--	4,790	--	--	--	--	--	--	1.3
	Facility Support	--	1,311	W	Q	3	W	0	--	11.0
	Onsite Transportation	--	44	--	307	*	192	--	--	5.1
	Conventional Electricity Generation	--	--	W	19	201	W	W	--	13.7
	Other Nonprocess Use	--	181	W	72	3	*	0	--	18.2
	End Use Not Reported	559	1,834	W	W	26	W	W	W	15.2

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2812	**Alkalies and Chlorine**									
	RSE Column Factors:	NF	0.9	1.0	1.1	1.0	1.2	0.8	NF	
	TOTAL INPUTS	129	13,424	W	51	52	1	W	W	8.3
	Indirect Uses-Boiler Fuel	--	W	W	41	W	*	W	--	10.9
	Direct Uses-Total Process	--	13,247	0	W	2	*	0	--	7.8
	Process Heating	--	W	0	W	W	0	0	--	9.4
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	6.7
	Machine Drive	--	1,196	0	W	*	*	0	--	9.3
	Electro-Chemical Processes	--	11,893	--	--	--	--	--	--	1.3
	Other Process Use	--	W	0	0	W	0	0	--	14.6
	Direct Uses-Total Nonprocess	--	W	W	W	W	1	0	--	8.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	41	W	0	W	0	0	--	8.1
	Facility Lighting	--	109	--	--	--	--	--	--	1.4
	Facility Support	--	W	0	0	W	0	0	--	12.4
	Onsite Transportation	--	0	--	W	0	1	--	--	2.8
	Conventional Electricity Generation	--	--	0	0	W	0	0	--	3.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	*	0	*	0	*	0	W	13.9
2813	**Industrial Gases**									
	RSE Column Factors:	NF	0.7	0.9	1.0	1.5	1.4	0.9	NF	
	TOTAL INPUTS	99	23,525	0	W	18	W	0	*	16.1
	Indirect Uses-Boiler Fuel	--	W	0	1	6	*	0	--	36.3
	Direct Uses-Total Process	--	21,720	0	0	9	1	0	--	18.3
	Process Heating	--	412	0	0	9	1	0	--	28.7
	Process Cooling and Refrigeration	--	732	0	0	0	0	0	--	24.4
	Machine Drive	--	20,566	0	0	*	0	0	--	14.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	9	0	0	*	0	0	--	74.8
	Direct Uses-Total Nonprocess	--	637	0	W	3	*	0	--	20.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	391	0	0	*	*	0	--	20.6
	Facility Lighting	--	180	--	--	--	--	--	--	1.4
	Facility Support	--	66	0	0	*	0	0	--	21.2
	Onsite Transportation	--	0	--	W	0	0	--	--	1.2
	Conventional Electricity Generation	--	--	0	0	2	0	0	--	6.5
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	1	W	0	0	0	W	0	*	56.5
2816	**Inorganic Pigments**									
	RSE Column Factors:	NF	1.4	0.7	1.2	0.8	1.2	0.9	NF	
	TOTAL INPUTS	40	2,393	W	W	W	W	W	W	9.3
	Indirect Uses-Boiler Fuel	--	W	W	21	10	*	W	--	11.7
	Direct Uses-Total Process	--	2,266	0	W	11	W	W	--	10.1
	Process Heating	--	W	0	20	11	W	W	--	10.6
	Process Cooling and Refrigeration	--	121	0	0	0	0	0	--	7.2
	Machine Drive	--	1,442	0	W	*	W	0	--	12.4
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.6
	Other Process Use	--	W	0	0	0	*	0	--	14.2
	Direct Uses-Total Nonprocess	--	117	0	17	*	5	0	--	7.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	56	0	*	*	*	0	--	9.6
	Facility Lighting	--	51	--	--	--	--	--	--	1.4
	Facility Support	--	W	0	0	*	*	0	--	9.0
	Onsite Transportation	--	W	--	17	0	4	--	--	4.2
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.7
	Other Nonprocess Use	--	0	0	*	0	0	0	--	17.1
	End Use Not Reported	W	W	0	W	W	*	0	W	16.6

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2819	**Industrial Inorganic Chemicals, nec.**									
	RSE Column Factors:	NF	1.3	0.8	1.3	0.8	1.3	0.7	NF	
	TOTAL INPUTS	344	42,239	588	W	W	W	1,451	W	11.4
	Indirect Uses-Boiler Fuel	--	70	168	110	71	11	1,165	--	13.9
	Direct Uses-Total Process	--	40,998	405	63	61	16	W	--	14.0
	Process Heating	--	2,060	405	32	60	13	W	--	13.0
	Process Cooling and Refrigeration	--	248	0	0	0	0	0	--	8.2
	Machine Drive	--	34,486	0	29	Q	4	0	--	25.2
	Electro-Chemical Processes	--	4,205	--	--	--	--	--	--	1.5
	Other Process Use	--	0	0	1	*	0	0	--	19.9
	Direct Uses-Total Nonprocess	--	1,138	Q	83	4	14	W	--	12.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	553	Q	12	2	3	W	--	16.3
	Facility Lighting	--	410	--	--	--	--	--	--	1.5
	Facility Support	--	158	0	W	*	*	0	--	17.0
	Onsite Transportation	--	4	--	W	0	11	--	--	6.3
	Conventional Electricity Generation	--	--	0	4	2	0	0	--	6.6
	Other Nonprocess Use	--	Q	0	*	0	0	0	--	19.9
	End Use Not Reported	23	33	5	W	W	W	0	W	30.9
2821	**Plastics Materials and Resins**									
	RSE Column Factors:	NF	0.8	0.9	1.2	1.0	1.7	0.6	NF	
	TOTAL INPUTS	319	16,408	542	186	W	W	875	50	9.3
	Indirect Uses-Boiler Fuel	--	304	W	97	112	8	875	--	10.9
	Direct Uses-Total Process	--	14,195	W	W	51	W	0	--	13.3
	Process Heating	--	473	W	19	37	W	0	--	16.9
	Process Cooling and Refrigeration	--	1,562	0	0	*	W	0	--	9.5
	Machine Drive	--	10,411	0	W	6	W	0	--	10.8
	Electro-Chemical Processes	--	1,788	--	--	--	--	--	--	1.6
	Other Process Use	--	S	*	*	8	W	0	--	24.4
	Direct Uses-Total Nonprocess	--	1,519	*	44	19	43	0	--	11.6
	Facility Heating, Ventilation, and Air Conditioning[f]	--	725	0	*	1	Q	0	--	12.9
	Facility Lighting	--	596	--	--	--	--	--	--	1.3
	Facility Support	--	190	0	W	W	1	0	--	11.8
	Onsite Transportation	--	W	--	W	0	26	--	--	4.1
	Conventional Electricity Generation	--	--	0	W	W	0	0	--	5.9
	Other Nonprocess Use	--	W	*	W	*	0	0	--	22.1
	End Use Not Reported	52	390	0	W	W	W	0	50	22.9
2822	**Synthetic Rubber**									
	RSE Column Factors:	NF	1.1	0.6	1.3	1.3	1.3	0.7	NF	
	TOTAL INPUTS	63	2,276	W	15	41	W	W	9	21.0
	Indirect Uses-Boiler Fuel	--	W	W	8	23	0	W	--	28.1
	Direct Uses-Total Process	--	1,953	0	W	17	0	0	--	18.1
	Process Heating	--	17	0	0	15	0	0	--	21.2
	Process Cooling and Refrigeration	--	343	0	0	*	0	0	--	22.6
	Machine Drive	--	1,588	0	W	*	0	0	--	20.4
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	5	0	0	2	0	0	--	33.4
	Direct Uses-Total Nonprocess	--	257	0	3	*	W	0	--	15.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	131	0	0	*	W	0	--	18.5
	Facility Lighting	--	85	--	--	--	--	--	--	1.6
	Facility Support	--	40	0	1	*	0	0	--	23.4
	Onsite Transportation	--	1	--	2	0	4	--	--	7.3
	Conventional Electricity Generation	--	--	0	0	*	0	0	--	5.6
	Other Nonprocess Use	--	0	0	*	*	0	0	--	33.4
	End Use Not Reported	9	W	0	W	*	0	0	9	20.8

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2823	**Cellulosic Manmade Fibers**									
	RSE Column Factors:	NF	1.0	1.0	1.0	1.0	1.0	1.0	NF	
	TOTAL INPUTS	28	419	0	23	W	W	W	W	1.0
	Indirect Uses-Boiler Fuel	--	W	0	W	W	0	W	--	1.0
	Direct Uses-Total Process	--	336	0	W	W	*	0	--	1.0
	Process Heating	--	W	0	W	W	*	0	--	1.0
	Process Cooling and Refrigeration	--	53	0	0	0	0	0	--	1.0
	Machine Drive	--	272	0	*	0	0	0	--	1.0
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	W	0	*	*	W	0	--	1.0
	Facility Heating, Ventilation, and Air Conditioning	--	49	0	0	*	0	0	--	1.0
	Facility Lighting	--	25	--	--	--	--	--	--	1.0
	Facility Support	--	W	0	0	*	0	0	--	1.0
	Onsite Transportation	--	W	--	*	0	W	--	--	1.0
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.0
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	*	0	0	0	0	0	W	1.0
2824	**Organic Fibers, Noncellulosic**									
	RSE Column Factors:	NF	0.9	0.8	1.4	1.3	1.2	0.6	NF	
	TOTAL INPUTS	114	7,093	1,435	88	W	W	1,577	W	6.8
	Indirect Uses-Boiler Fuel	--	W	W	65	31	W	1,577	--	7.9
	Direct Uses-Total Process	--	5,876	W	W	W	15	0	--	8.1
	Process Heating	--	W	W	W	W	15	0	--	8.2
	Process Cooling and Refrigeration	--	799	0	0	W	0	0	--	8.9
	Machine Drive	--	3,811	0	W	*	0	0	--	9.0
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.6
	Other Process Use	--	61	0	0	0	0	0	--	15.4
	Direct Uses-Total Nonprocess	--	1,089	0	8	W	24	0	--	4.7
	Facility Heating, Ventilation, and Air Conditioning	--	532	0	W	W	W	0	--	7.7
	Facility Lighting	--	408	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	0	*	W	0	--	10.5
	Onsite Transportation	--	W	--	W	*	W	--	--	4.7
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	3.7
	Other Nonprocess Use	--	W	0	W	0	*	0	--	14.2
	End Use Not Reported	8	W	0	W	W	W	0	W	11.2
2861	**Gum and Wood Chemicals**									
	RSE Column Factors:	NF	1.2	1.0	1.2	1.2	1.1	0.6	NF	
	TOTAL INPUTS	10	211	*	W	4	W	0	5	6.9
	Indirect Uses-Boiler Fuel	--	W	0	W	W	W	0	--	8.7
	Direct Uses-Total Process	--	150	*	W	W	W	0	--	7.2
	Process Heating	--	16	*	W	W	W	0	--	8.9
	Process Cooling and Refrigeration	--	4	0	0	W	0	0	--	17.5
	Machine Drive	--	129	0	W	0	W	0	--	7.1
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.6
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	W	0	W	*	W	0	--	6.2
	Facility Heating, Ventilation, and Air Conditioning	--	21	0	0	*	W	0	--	8.7
	Facility Lighting	--	12	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	0	*	0	0	--	7.2
	Onsite Transportation	--	0	--	W	0	W	--	--	2.8
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	W	0	W	W	W	0	5	7.6

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2865	**Cyclic Crudes and Intermediates**									
	RSE Column Factors:	NF	1.3	0.8	1.2	1.2	1.2	0.6	NF	
	TOTAL INPUTS	155	4,789	W	204	95	279	W	25	19.8
	Indirect Uses-Boiler Fuel	--	358	W	178	64	Q	W	--	21.6
	Direct Uses-Total Process	--	3,889	*	W	25	Q	0	--	17.6
	Process Heating	--	670	*	6	25	Q	0	--	22.1
	Process Cooling and Refrigeration	--	623	0	0	W	0	0	--	19.0
	Machine Drive	--	2,516	0	W	W	*	0	--	16.3
	Electro-Chemical Processes	--	58	--	--	--	--	--	--	1.8
	Other Process Use	--	21	0	*	0	0	0	--	25.6
	Direct Uses-Total Nonprocess	--	484	0	5	5	11	0	--	18.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	301	0	0	*	W	0	--	23.6
	Facility Lighting	--	156	--	--	--	--	--	--	1.6
	Facility Support	--	27	0	*	*	W	0	--	21.2
	Onsite Transportation	--	1	--	4	*	11	--	--	8.8
	Conventional Electricity Generation	--	--	0	0	4	0	0	--	4.5
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	28	58	W	W	2	*	0	25	31.0
2869	**Industrial Organic Chemicals, nec.**									
	RSE Column Factors:	NF	1.1	0.9	1.2	1.0	1.3	0.7	NF	
	TOTAL INPUTS	1,370	18,786	795	317	813	265	4,178	369	10.2
	Indirect Uses-Boiler Fuel	--	251	W	166	376	71	W	--	14.1
	Direct Uses-Total Process	--	16,049	134	W	277	176	0	--	13.1
	Process Heating	--	W	134	W	242	W	0	--	17.0
	Process Cooling and Refrigeration	--	2,503	0	W	4	W	0	--	19.1
	Machine Drive	--	11,818	0	6	28	0	0	--	11.5
	Electro-Chemical Processes	--	949	--	--	--	--	--	--	1.7
	Other Process Use	--	W	0	*	4	0	0	--	30.1
	Direct Uses-Total Nonprocess	--	1,980	W	96	149	12	0	--	15.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	848	W	W	3	W	0	--	13.5
	Facility Lighting	--	892	--	--	--	--	--	--	1.5
	Facility Support	--	203	0	Q	W	W	0	--	11.3
	Onsite Transportation	--	7	--	W	0	11	--	--	5.9
	Conventional Electricity Generation	--	--	0	*	143	W	0	--	8.3
	Other Nonprocess Use	--	30	0	W	W	0	0	--	24.2
	End Use Not Reported	383	507	W	W	11	7	W	369	17.5
2873	**Nitrogenous Fertilizers**									
	RSE Column Factors:	NF	1.4	0.4	1.5	1.4	1.7	0.4	NF	
	TOTAL INPUTS	286	3,817	0	29	260	4	0	5	6.8
	Indirect Uses-Boiler Fuel	--	43	0	10	70	0	0	--	11.5
	Direct Uses-Total Process	--	3,537	0	6	180	2	0	--	10.0
	Process Heating	--	208	0	5	171	*	0	--	14.6
	Process Cooling and Refrigeration	--	377	0	0	5	0	0	--	14.6
	Machine Drive	--	2,802	0	1	2	1	0	--	14.2
	Electro-Chemical Processes	--	150	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	0	2	0	0	--	23.8
	Direct Uses-Total Nonprocess	--	212	0	11	2	2	0	--	9.7
	Facility Heating, Ventilation, and Air Conditioning[f]	--	89	0	*	*	1	0	--	13.6
	Facility Lighting	--	86	--	--	--	--	--	--	1.5
	Facility Support	--	37	0	2	*	*	0	--	20.6
	Onsite Transportation	--	0	--	9	0	1	--	--	4.4
	Conventional Electricity Generation	--	--	0	*	2	*	0	--	8.9
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	13	25	0	3	8	*	0	5	18.4

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2874	**Phosphatic Fertilizers**									
	RSE Column Factors:	NF	1.5	0.8	1.0	0.9	1.2	0.7	NF	
	TOTAL INPUTS	18	1,131	W	117	W	3	W	W	5.7
	Indirect Uses-Boiler Fuel	--	W	W	W	2	0	0	--	6.7
	Direct Uses-Total Process	--	1,000	W	32	7	W	W	--	5.9
	Process Heating	--	W	W	W	7	W	W	--	6.5
	Process Cooling and Refrigeration	--	W	0	0	*	0	0	--	12.0
	Machine Drive	--	831	0	W	*	0	0	--	8.0
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.4
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	W	0	60	W	W	0	--	5.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	39	0	*	W	1	0	--	6.0
	Facility Lighting	--	26	--	--	--	--	--	--	1.4
	Facility Support	--	W	0	*	0	*	0	--	7.1
	Onsite Transportation	--	S	--	W	0	W	--	--	2.9
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.7
	Other Nonprocess Use	--	0	0	W	0	0	0	--	9.7
	End Use Not Reported	W	W	0	W	0	0	0	W	6.4
2895	**Carbon Black**									
	RSE Column Factors:	NF	1.1	1.0	1.2	1.1	1.6	0.5	NF	
	TOTAL INPUTS	30	W	W	W	17	W	0	W	11.7
	Indirect Uses-Boiler Fuel	--	W	0	0	6	0	0	--	20.8
	Direct Uses-Total Process	--	350	W	W	10	0	0	--	13.8
	Process Heating	--	W	W	0	10	0	0	--	15.6
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	28.0
	Machine Drive	--	345	0	W	*	0	0	--	14.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	58	W	3	W	W	0	--	14.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	16	0	*	W	0	0	--	13.9
	Facility Lighting	--	37	--	--	--	--	--	--	1.6
	Facility Support	--	5	W	0	W	0	0	--	19.3
	Onsite Transportation	--	0	--	3	*	W	--	--	6.2
	Conventional Electricity Generation	--	--	0	0	W	0	0	--	4.1
	Other Nonprocess Use	--	0	0	*	0	0	0	--	21.1
	End Use Not Reported	W	*	0	0	W	0	0	W	20.3
29	**PETROLEUM and COAL PRODUCTS**									
	RSE Column Factors:	NF	0.7	0.9	1.6	0.7	1.0	1.5	NF	
	TOTAL INPUTS	3,263	35,440	11,378	3,652	W	11,719	W	W	6.4
	Indirect Uses-Boiler Fuel	--	W	5,917	372	247	2,415	W	--	8.4
	Direct Uses-Total Process	--	30,618	4,559	2,715	455	8,606	273	--	7.2
	Process Heating	--	800	4,555	2,432	437	8,008	273	--	8.7
	Process Cooling and Refrigeration	--	1,702	1	1	W	W	0	--	21.7
	Machine Drive	--	28,032	3	W	12	168	0	--	15.3
	Electro-Chemical Processes	--	33	--	--	--	--	--	--	1.5
	Other Process Use	--	50	0	W	W	W	0	--	15.4
	Direct Uses-Total Nonprocess	--	2,654	Q	291	78	205	0	--	11.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1,239	W	5	5	W	0	--	14.3
	Facility Lighting	--	1,102	--	--	--	--	--	--	1.3
	Facility Support	--	290	W	4	1	W	0	--	15.7
	Onsite Transportation	--	12	--	271	0	W	--	--	5.2
	Conventional Electricity Generation	--	--	0	Q	72	W	0	--	6.7
	Other Nonprocess Use	--	11	0	Q	*	W	0	--	24.1
	End Use Not Reported	2,203	W	899	274	W	493	0	W	18.2

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
2911	***Petroleum Refining***									
	RSE Column Factors:	NF	0.9	0.9	1.3	0.9	1.3	0.8	NF	
	TOTAL INPUTS	3,153	33,335	10,891	1,159	734	W	W	2,161	5.7
	Indirect Uses-Boiler Fuel	--	W	5,580	178	236	2,303	W	--	7.1
	Direct Uses-Total Process	--	29,051	4,452	896	417	8,321	0	--	5.3
	Process Heating	--	500	4,452	834	402	7,724	0	--	6.8
	Process Cooling and Refrigeration	--	1,727	0	0	W	W	0	--	11.8
	Machine Drive	--	26,751	0	W	10	167	0	--	7.3
	Electro-Chemical Processes	--	29	--	--	--	--	--	--	1.5
	Other Process Use	--	44	0	W	W	W	0	--	12.5
	Direct Uses-Total Nonprocess	--	2,282	W	46	W	W	0	--	9.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	W	0	0	W	W	0	--	8.0
	Facility Lighting	--	948	--	--	--	--	--	--	1.3
	Facility Support	--	216	W	W	1	W	0	--	12.9
	Onsite Transportation	--	12	--	44	0	W	--	--	4.3
	Conventional Electricity Generation	--	--	0	*	71	W	0	--	6.1
	Other Nonprocess Use	--	W	0	W	*	W	0	--	17.3
	End Use Not Reported	2,178	W	W	38	W	W	0	2,161	15.0
30	**RUBBER and MISC. PLASTICS PRODUCTS**									
	RSE Column Factors:	NF	0.6	1.1	1.6	1.0	1.2	0.7	NF	
	TOTAL INPUTS	286	43,749	1,600	540	107	824	219	6	7.2
	Indirect Uses-Boiler Fuel	--	240	1,303	306	55	29	218	--	11.6
	Direct Uses-Total Process	--	33,325	212	Q	25	194	0	--	10.3
	Process Heating	--	7,185	117	Q	22	144	0	--	12.8
	Process Cooling and Refrigeration	--	3,051	0	*	*	W	0	--	17.4
	Machine Drive	--	22,789	96	17	1	47	0	--	18.9
	Electro-Chemical Processes	--	98	--	--	--	--	--	--	1.7
	Other Process Use	--	202	0	Q	1	W	0	--	34.1
	Direct Uses-Total Nonprocess	--	8,057	43	127	21	557	Q	--	9.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	3,702	43	50	20	79	W	--	14.0
	Facility Lighting	--	3,352	--	--	--	--	--	--	1.3
	Facility Support	--	863	*	2	1	3	W	--	14.7
	Onsite Transportation	--	107	--	55	*	473	--	--	5.6
	Conventional Electricity Generation	--	--	0	Q	1	0	0	--	7.7
	Other Nonprocess Use	--	33	*	Q	*	Q	0	--	38.9
	End Use Not Reported	20	2,127	42	31	6	44	0	6	20.9
3011	**Tires and Inner Tubes**									
	RSE Column Factors:	NF	0.8	0.8	1.3	1.2	1.2	1.0	NF	
	TOTAL INPUTS	48	4,664	720	115	22	95	81	2	10.3
	Indirect Uses-Boiler Fuel	--	W	W	W	20	*	80	--	13.7
	Direct Uses-Total Process	--	3,409	W	W	*	6	0	--	11.0
	Process Heating	--	44	W	0	*	3	0	--	18.2
	Process Cooling and Refrigeration	--	215	0	0	0	0	0	--	11.5
	Machine Drive	--	3,150	0	W	*	3	0	--	10.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	*	0	0	--	8.4
	Direct Uses-Total Nonprocess	--	1,033	W	W	1	W	Q	--	9.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	462	W	0	1	W	W	--	8.2
	Facility Lighting	--	478	--	--	--	--	--	--	1.3
	Facility Support	--	62	0	W	*	0	W	--	11.7
	Onsite Transportation	--	32	--	W	0	86	--	--	3.6
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	3.2
	Other Nonprocess Use	--	0	0	W	*	0	0	--	7.1
	End Use Not Reported	4	W	W	W	1	W	0	2	11.4

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
308	**Miscellaneous Plastics Products, nec.**									
	RSE Column Factors:	NF	0.7	1.1	1.4	1.0	1.3	0.7	NF	
	TOTAL INPUTS	192	33,961	497	262	62	632	82	4	10.9
	Indirect Uses-Boiler Fuel	--	W	285	110	24	12	82	--	18.1
	Direct Uses-Total Process	--	26,249	168	W	18	161	0	--	12.1
	Process Heating	--	6,290	Q	Q	17	120	0	--	10.7
	Process Cooling and Refrigeration	--	2,570	0	*	*	W	0	--	20.0
	Machine Drive	--	17,102	95	W	1	38	0	--	20.5
	Electro-Chemical Processes	--	92	--	--	--	--	--	--	1.8
	Other Process Use	--	194	0	*	1	W	0	--	34.9
	Direct Uses-Total Nonprocess	--	5,870	W	W	16	W	0	--	11.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	2,702	W	25	14	W	0	--	15.6
	Facility Lighting	--	2,389	--	--	--	--	--	--	1.3
	Facility Support	--	682	0	W	*	2	0	--	16.7
	Onsite Transportation	--	64	--	W	*	342	--	--	7.2
	Conventional Electricity Generation	--	--	0	W	1	0	0	--	7.2
	Other Nonprocess Use	--	33	0	W	*	Q	0	--	38.5
	End Use Not Reported	14	W	W	24	4	W	0	4	27.9
31	**LEATHER and LEATHER PRODUCTS**									
	RSE Column Factors:	NF	1.0	0.7	1.8	0.9	1.7	0.5	NF	
	TOTAL INPUTS	W	828	250	W	W	W	0	*	15.0
	Indirect Uses-Boiler Fuel	--	13	246	20	2	W	0	--	25.2
	Direct Uses-Total Process	--	533	0	18	1	11	0	--	18.7
	Process Heating	--	28	0	Q	1	11	0	--	23.0
	Process Cooling and Refrigeration	--	20	0	0	*	0	0	--	34.1
	Machine Drive	--	485	0	0	*	*	0	--	18.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	*	0	Q	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	206	Q	5	W	14	0	--	17.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	99	Q	5	W	8	0	--	20.9
	Facility Lighting	--	92	--	--	--	--	--	--	1.6
	Facility Support	--	14	0	*	1	*	0	--	26.4
	Onsite Transportation	--	*	--	*	0	6	--	--	5.2
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.0
	Other Nonprocess Use	--	Q	0	0	0	0	0	--	0.0
	End Use Not Reported	1	76	Q	W	W	Q	0	*	40.0
32	**STONE, CLAY and GLASS PRODUCTS**									
	RSE Column Factors:	NF	0.7	1.0	1.4	0.8	1.6	0.8	NF	
	TOTAL INPUTS	945	36,018	1,187	3,917	419	1,057	12,423	83	6.8
	Indirect Uses-Boiler Fuel	--	174	112	205	19	37	11	--	24.3
	Direct Uses-Total Process	--	30,544	1,069	1,453	369	608	11,933	--	7.7
	Process Heating	--	8,403	1,064	782	358	553	11,929	--	8.5
	Process Cooling and Refrigeration	--	848	0	*	1	W	0	--	21.6
	Machine Drive	--	21,201	Q	659	8	54	4	--	19.1
	Electro-Chemical Processes	--	82	--	--	--	--	--	--	1.9
	Other Process Use	--	10	0	11	1	W	0	--	19.9
	Direct Uses-Total Nonprocess	--	4,189	Q	1,951	21	362	Q	--	7.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1,670	Q	55	18	73	Q	--	11.7
	Facility Lighting	--	1,967	--	--	--	--	--	--	1.3
	Facility Support	--	474	0	Q	2	5	0	--	11.3
	Onsite Transportation	--	47	--	1,759	*	284	--	--	6.3
	Conventional Electricity Generation	--	--	0	Q	1	*	0	--	10.6
	Other Nonprocess Use	--	29	0	Q	*	*	0	--	33.3
	End Use Not Reported	109	1,111	Q	307	10	50	473	83	23.2

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
3211	**Flat Glass**									
	RSE Column Factors:	NF	0.9	1.1	1.5	0.9	1.5	0.5	NF	
	TOTAL INPUTS	52	1,468	244	11	44	20	0	*	15.0
	Indirect Uses-Boiler Fuel	--	8	0	*	1	0	0	--	30.8
	Direct Uses-Total Process	--	1,258	244	6	41	10	0	--	18.6
	Process Heating	--	593	244	5	41	9	0	--	19.4
	Process Cooling and Refrigeration	--	74	0	*	*	0	0	--	26.7
	Machine Drive	--	591	0	*	*	1	0	--	27.0
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	*	0	*	0	--	23.8
	Direct Uses-Total Nonprocess	--	203	0	5	1	10	0	--	12.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	67	0	0	1	*	0	--	20.0
	Facility Lighting	--	96	--	--	--	--	--	--	1.5
	Facility Support	--	19	0	*	*	*	0	--	24.0
	Onsite Transportation	--	15	--	4	0	10	--	--	5.0
	Conventional Electricity Generation	--	--	0	1	0	0	0	--	3.9
	Other Nonprocess Use	--	5	0	0	0	0	0	--	47.7
	End Use Not Reported	*	*	0	0	0	1	0	*	33.7
3221	**Glass Containers**									
	RSE Column Factors:	NF	1.1	0.9	1.7	0.8	1.4	0.5	NF	
	TOTAL INPUTS	83	4,268	336	75	64	98	0	*	5.8
	Indirect Uses-Boiler Fuel	--	W	0	W	*	0	0	--	12.4
	Direct Uses-Total Process	--	3,772	336	W	60	51	0	--	6.5
	Process Heating	--	1,491	336	W	60	W	0	--	6.8
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	8.8
	Machine Drive	--	2,233	0	*	*	W	0	--	11.1
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.7
	Other Process Use	--	W	0	0	0	0	0	--	21.1
	Direct Uses-Total Nonprocess	--	W	0	W	3	W	0	--	5.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	144	0	W	2	W	0	--	8.9
	Facility Lighting	--	303	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	*	1	0	0	--	7.8
	Onsite Transportation	--	W	--	W	0	44	--	--	4.4
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.9
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	*	0	*	0	W	0	*	10.1
3229	**Pressed and Blown Glass, nec.**									
	RSE Column Factors:	NF	1.2	1.0	1.5	0.9	1.3	0.5	NF	
	TOTAL INPUTS	63	3,233	W	57	49	W	0	*	8.5
	Indirect Uses-Boiler Fuel	--	4	W	W	2	*	0	--	14.7
	Direct Uses-Total Process	--	2,683	W	W	45	19	0	--	10.2
	Process Heating	--	1,040	W	W	43	W	0	--	11.1
	Process Cooling and Refrigeration	--	231	0	0	0	0	0	--	5.8
	Machine Drive	--	1,389	0	*	2	W	0	--	10.3
	Electro-Chemical Processes	--	23	--	--	--	--	--	--	1.7
	Other Process Use	--	0	0	W	0	*	0	--	13.6
	Direct Uses-Total Nonprocess	--	546	0	13	2	W	0	--	6.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	253	0	0	2	W	0	--	7.8
	Facility Lighting	--	241	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	W	*	0	0	--	11.8
	Onsite Transportation	--	W	--	W	*	20	--	--	4.2
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	3.4
	Other Nonprocess Use	--	W	0	W	0	0	0	--	15.1
	End Use Not Reported	*	*	0	*	0	*	0	*	13.2

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
3241	**Cement, Hydraulic**									
	RSE Column Factors:	NF	0.8	1.0	1.4	1.2	1.3	0.6	NF	
	TOTAL INPUTS	329	10,784	158	820	24	9	9,174	59	11.7
	Indirect Uses-Boiler Fuel	--	6	0	13	1	0	0	--	37.2
	Direct Uses-Total Process	--	9,773	158	357	21	3	8,885	--	15.1
	Process Heating	--	677	158	317	21	2	8,881	--	18.7
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	23.1
	Machine Drive	--	8,963	0	39	*	1	4	--	22.2
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	0	0	0	--	54.0
	Direct Uses-Total Nonprocess	--	486	0	389	1	5	0	--	10.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	197	0	W	1	2	0	--	16.0
	Facility Lighting	--	221	--	--	--	--	--	--	1.4
	Facility Support	--	68	0	W	*	*	0	--	21.8
	Onsite Transportation	--	1	--	381	0	3	--	--	5.7
	Conventional Electricity Generation	--	--	0	W	*	0	0	--	11.3
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	69	520	0	62	1	1	290	59	28.1
3274	**Lime**									
	RSE Column Factors:	NF	1.1	1.2	0.9	0.9	1.5	0.6	NF	
	TOTAL INPUTS	96	1,151	105	251	12	5	2,980	11	18.3
	Indirect Uses-Boiler Fuel	--	0	0	*	0	0	0	--	53.4
	Direct Uses-Total Process	--	1,003	Q	88	11	3	2,809	--	20.9
	Process Heating	--	307	Q	42	11	3	2,809	--	22.4
	Process Cooling and Refrigeration	--	2	0	0	0	0	0	--	29.2
	Machine Drive	--	694	0	45	*	*	0	--	27.9
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	93	0	148	*	2	0	--	21.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	47	0	2	*	1	0	--	31.9
	Facility Lighting	--	33	--	--	--	--	--	--	1.6
	Facility Support	--	14	0	0	*	*	0	--	40.9
	Onsite Transportation	--	0	--	145	0	1	--	--	4.4
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.9
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	17	55	Q	15	1	*	171	11	34.9
3296	**Mineral Wool**									
	RSE Column Factors:	NF	1.0	0.8	2.0	0.8	1.3	0.5	NF	
	TOTAL INPUTS	51	3,401	W	9	36	W	0	2	9.9
	Indirect Uses-Boiler Fuel	--	13	W	*	1	*	0	--	19.1
	Direct Uses-Total Process	--	3,143	0	W	34	32	0	--	8.7
	Process Heating	--	1,939	0	W	W	32	0	--	9.2
	Process Cooling and Refrigeration	--	20	0	0	0	0	0	--	12.5
	Machine Drive	--	1,184	0	*	0	0	0	--	9.7
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	W	W	0	0	--	23.9
	Direct Uses-Total Nonprocess	--	246	0	W	1	W	0	--	8.7
	Facility Heating, Ventilation, and Air Conditioning[f]	--	100	0	W	1	W	0	--	13.4
	Facility Lighting	--	116	--	--	--	--	--	--	1.5
	Facility Support	--	28	0	*	*	0	0	--	12.3
	Onsite Transportation	--	1	--	W	0	37	--	--	4.8
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	3.4
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	2	*	0	*	0	*	0	2	11.6

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
33	**PRIMARY METAL INDUSTRIES**									
	RSE Column Factors:	NF	0.5	1.4	1.1	0.9	1.5	1.0	NF	
	TOTAL INPUTS	2,568	144,466	6,870	2,126	778	1,472	2,327	1,162	6.8
	Indirect Uses-Boiler Fuel	--	377	4,781	175	92	36	1,926	--	10.7
	Direct Uses-Total Process	--	131,473	2,054	W	609	772	W	--	9.6
	Process Heating	--	35,610	2,051	547	587	723	W	--	11.5
	Process Cooling and Refrigeration	--	1,127	0	0	*	0	0	--	17.7
	Machine Drive	--	39,431	3	W	3	42	0	--	10.9
	Electro-Chemical Processes	--	54,834	--	--	--	--	--	--	1.0
	Other Process Use	--	471	0	3	19	7	0	--	19.6
	Direct Uses-Total Nonprocess	--	10,603	35	1,271	56	612	W	--	5.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	4,386	W	93	46	89	*	--	13.4
	Facility Lighting	--	4,818	--	--	--	--	--	--	1.2
	Facility Support	--	1,113	2	4	W	12	0	--	14.5
	Onsite Transportation	--	149	--	W	*	507	--	--	5.7
	Conventional Electricity Generation	--	--	0	W	W	3	W	--	3.6
	Other Nonprocess Use	--	137	W	W	1	*	0	--	25.2
	End Use Not Reported	1,190	2,013	0	W	21	52	W	1,162	19.5
331	***Blast Furnace and Basic Steel Products***									
	RSE Column Factors:	NF	0.70	1.0	1.1	0.7	1.4	1.4	NF	
	TOTAL INPUTS	1,907	53,269	6,680	W	503	W	1,771	1,119	10.8
	Indirect Uses-Boiler Fuel	--	208	4,689	96	65	W	1,532	--	13.4
	Direct Uses-Total Process	--	48,271	1,983	124	405	109	W	--	13.8
	Process Heating	--	22,815	1,980	88	385	W	W	--	15.7
	Process Cooling and Refrigeration	--	446	0	0	*	0	0	--	21.5
	Machine Drive	--	23,278	3	33	2	6	0	--	16.5
	Electro-Chemical Processes	--	1,454	--	--	--	--	--	--	1.5
	Other Process Use	--	278	0	3	18	W	0	--	25.2
	Direct Uses-Total Nonprocess	--	4,336	8	642	28	198	*	--	14.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1,656	W	49	22	11	*	--	16.1
	Facility Lighting	--	2,012	--	--	--	--	--	--	1.3
	Facility Support	--	476	*	*	4	7	0	--	17.2
	Onsite Transportation	--	73	--	593	*	Q	--	--	3.3
	Conventional Electricity Generation	--	--	0	*	*	*	0	--	13.9
	Other Nonprocess Use	--	118	W	0	1	*	0	--	27.2
	End Use Not Reported	1,126	454	0	W	4	7	W	1,119	20.4
3312	***Blast Furnaces and Steel Mills***									
	RSE Column Factors:	NF	0.8	1.1	1.0	0.8	1.1	1.1	NF	
	TOTAL INPUTS	1,824	43,520	6,659	W	462	W	1,598	1,118	8.1
	Indirect Uses-Boiler Fuel	--	151	4,669	91	58	1	1,520	--	13.9
	Direct Uses-Total Process	--	39,846	1,983	110	377	32	W	--	10.0
	Process Heating	--	18,116	1,980	88	357	W	W	--	10.9
	Process Cooling and Refrigeration	--	354	0	0	*	0	0	--	19.8
	Machine Drive	--	19,877	3	W	2	1	0	--	13.6
	Electro-Chemical Processes	--	1,229	--	--	--	--	--	--	1.6
	Other Process Use	--	271	0	W	18	W	0	--	24.1
	Direct Uses-Total Nonprocess	--	3,418	8	595	23	48	0	--	8.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1,233	W	31	17	11	0	--	14.1
	Facility Lighting	--	1,599	--	--	--	--	--	--	1.3
	Facility Support	--	414	0	0	4	5	0	--	14.7
	Onsite Transportation	--	65	--	564	0	32	--	--	3.9
	Conventional Electricity Generation	--	--	0	0	*	*	0	--	10.2
	Other Nonprocess Use	--	106	W	0	1	*	0	--	25.8
	End Use Not Reported	1,122	105	0	W	3	W	W	1,118	23.9

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
3313	**Electrometallurgical Products**									
	RSE Column Factors:	NF	2.7	0.4	1.5	1.2	1.4	0.4	NF	
	TOTAL INPUTS	23	4,796	0	21	2	5	Q	Q	19.4
	Indirect Uses-Boiler Fuel	--	0	0	0	*	0	0	--	0.0
	Direct Uses-Total Process	--	4,500	0	Q	2	Q	Q	--	17.7
	Process Heating	--	4,054	0	0	2	Q	Q	--	18.5
	Process Cooling and Refrigeration	--	Q	0	0	0	0	0	--	0.0
	Machine Drive	--	400	0	Q	0	*	0	--	15.0
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	1.2
	Other Process Use	--	Q	0	0	*	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	161	0	12	*	4	0	--	20.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	107	0	0	*	*	0	--	18.3
	Facility Lighting	--	49	--	--	--	--	--	--	1.8
	Facility Support	--	5	0	0	*	0	0	--	16.8
	Onsite Transportation	--	0	--	12	0	4	--	--	8.4
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.4
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	1	Q	0	0	*	*	0	Q	0.0
3321	**Gray and Ductile Iron Foundries**									
	RSE Column Factors:	NF	1.1	0.9	1.4	0.7	1.2	0.9	NF	
	TOTAL INPUTS	92	8,820	Q	113	32	141	5	28	11.3
	Indirect Uses-Boiler Fuel	--	38	0	Q	2	W	0	--	31.8
	Direct Uses-Total Process	--	7,158	*	28	20	56	5	--	16.9
	Process Heating	--	4,292	*	18	20	W	5	--	18.2
	Process Cooling and Refrigeration	--	35	0	0	0	0	0	--	16.6
	Machine Drive	--	2,819	*	9	*	W	0	--	26.9
	Electro-Chemical Processes	--	8	--	--	--	--	--	--	1.8
	Other Process Use	--	Q	0	*	*	W	0	--	35.2
	Direct Uses-Total Nonprocess	--	1,286	Q	W	9	68	0	--	10.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	595	Q	4	8	15	0	--	19.5
	Facility Lighting	--	542	--	--	--	--	--	--	1.5
	Facility Support	--	112	0	1	*	1	0	--	20.9
	Onsite Transportation	--	19	--	67	0	52	--	--	5.2
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	5.2
	Other Nonprocess Use	--	17	0	0	0	*	0	--	34.2
	End Use Not Reported	30	339	0	W	Q	W	0	28	34.6
3331	**Primary Copper**									
	RSE Column Factors:	NF	1.0	1.0	1.0	1.0	1.0	1.0	NF	
	TOTAL INPUTS	32	1,581	W	W	21	W	W	W	1.0
	Indirect Uses-Boiler Fuel	--	0	0	0	8	0	W	--	1.0
	Direct Uses-Total Process	--	1,395	W	W	11	0	W	--	1.0
	Process Heating	--	W	W	W	11	0	W	--	1.0
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	1.0
	Machine Drive	--	734	0	W	0	0	0	--	1.0
	Electro-Chemical Processes	--	257	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	*	0	0	--	1.0
	Direct Uses-Total Nonprocess	--	186	0	W	3	W	W	--	1.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	74	0	0	W	0	0	--	1.0
	Facility Lighting	--	80	--	--	--	--	--	--	1.0
	Facility Support	--	31	0	0	*	0	0	--	1.0
	Onsite Transportation	--	0	--	184	0	W	--	--	1.0
	Conventional Electricity Generation	--	--	0	W	W	0	W	--	1.0
	Other Nonprocess Use	--	0	0	W	0	0	0	--	1.0
	End Use Not Reported	W	*	0	W	0	0	0	W	1.0

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
3334	**Primary Aluminum**									
	RSE Column Factors:	NF	0.9	0.9	1.0	1.5	0.9	0.9	NF	
	TOTAL INPUTS	201	53,552	W	125	16	W	0	W	1.6
	Indirect Uses-Boiler Fuel	--	W	W	W	W	W	0	--	1.0
	Direct Uses-Total Process	--	52,260	0	W	14	27	0	--	1.5
	Process Heating	--	W	0	W	14	W	0	--	1.5
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	1.1
	Machine Drive	--	1,355	0	W	*	W	0	--	1.3
	Electro-Chemical Processes	--	50,614	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	0	0	0	--	1.1
	Direct Uses-Total Nonprocess	--	W	0	98	1	W	0	--	1.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	595	0	0	*	1	0	--	0.9
	Facility Lighting	--	569	--	--	--	--	--	--	1.0
	Facility Support	--	W	0	0	*	*	0	--	0.9
	Onsite Transportation	--	W	--	98	0	W	--	--	1.2
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.1
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	1	W	0	0	W	*	0	W	0.9
3339	**Primary Nonferrous Metals, nec.**									
	RSE Column Factors:	NF	1.4	0.7	1.1	1.1	1.2	0.7	NF	
	TOTAL INPUTS	38	4,151	W	W	12	17	361	4	14.6
	Indirect Uses-Boiler Fuel	--	W	W	10	W	*	361	--	23.6
	Direct Uses-Total Process	--	3,559	0	21	9	9	0	--	11.5
	Process Heating	--	974	0	W	9	9	0	--	13.6
	Process Cooling and Refrigeration	--	67	0	0	0	0	0	--	13.2
	Machine Drive	--	559	0	W	*	*	0	--	14.8
	Electro-Chemical Processes	--	1,959	--	--	--	--	--	--	1.5
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	208	0	W	*	8	0	--	9.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	112	0	0	*	W	0	--	12.2
	Facility Lighting	--	79	--	--	--	--	--	--	1.4
	Facility Support	--	14	0	*	*	W	0	--	16.8
	Onsite Transportation	--	3	--	W	*	6	--	--	7.0
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.7
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	5	W	0	1	W	*	0	4	20.4
3353	**Aluminum Sheet, Plate, and Foil**									
	RSE Column Factors:	NF	1.2	0.6	1.3	0.8	1.2	1.0	NF	
	TOTAL INPUTS	73	4,835	0	W	51	54	W	W	5.1
	Indirect Uses-Boiler Fuel	--	W	0	0	W	W	W	--	10.7
	Direct Uses-Total Process	--	4,366	0	10	45	11	0	--	5.0
	Process Heating	--	636	0	10	45	11	0	--	5.8
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	4.9
	Machine Drive	--	3,695	0	0	0	0	0	--	3.2
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	*	0	0	--	13.3
	Direct Uses-Total Nonprocess	--	W	0	W	3	W	0	--	4.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	202	0	W	3	W	0	--	7.1
	Facility Lighting	--	185	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	*	*	*	0	--	8.0
	Onsite Transportation	--	W	--	51	0	W	--	--	3.0
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	W	0	W	W	W	0	W	10.7

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
34	**FABRICATED METAL PRODUCTS**									
	RSE Column Factors:	NF	0.9	0.8	1.6	0.9	1.5	0.6	NF	
	TOTAL INPUTS	365	33,819	478	747	213	1,334	W	W	12.3
	Indirect Uses-Boiler Fuel	--	376	312	188	38	47	W	--	20.6
	Direct Uses-Total Process	--	23,385	W	W	115	328	W	--	10.3
	Process Heating	--	4,311	Q	191	111	171	W	--	12.1
	Process Cooling and Refrigeration	--	751	0	0	*	W	0	--	23.1
	Machine Drive	--	16,494	W	W	3	105	0	--	16.2
	Electro-Chemical Processes	--	1,549	--	--	--	--	--	--	1.6
	Other Process Use	--	278	0	Q	1	W	0	--	27.4
	Direct Uses-Total Nonprocess	--	8,022	W	251	48	835	W	--	9.3
	Facility Heating, Ventilation, and Air Conditioning[f]	--	3,413	W	143	45	126	W	--	12.1
	Facility Lighting	--	3,741	--	--	--	--	--	--	1.3
	Facility Support	--	720	0	4	2	5	0	--	16.4
	Onsite Transportation	--	117	--	97	*	701	--	--	5.6
	Conventional Electricity Generation	--	--	0	Q	*	0	0	--	1.1
	Other Nonprocess Use	--	30	0	*	*	2	0	--	29.4
	End Use Not Reported	34	2,037	5	W	13	124	0	W	24.1
35	**INDUSTRIAL MACHINERY and EQUIPMENT**									
	RSE Column Factors:	NF	0.6	1.1	1.3	0.7	1.2	1.4	NF	
	TOTAL INPUTS	245	32,037	W	672	107	885	484	W	8.5
	Indirect Uses-Boiler Fuel	--	182	319	110	21	27	424	--	15.7
	Direct Uses-Total Process	--	18,305	W	W	38	287	43	--	14.8
	Process Heating	--	3,108	Q	W	35	186	40	--	17.8
	Process Cooling and Refrigeration	--	890	0	1	*	0	3	--	27.8
	Machine Drive	--	14,041	Q	117	2	76	0	--	15.4
	Electro-Chemical Processes	--	108	--	--	--	--	--	--	1.5
	Other Process Use	--	159	W	157	1	25	0	--	30.6
	Direct Uses-Total Nonprocess	--	11,608	69	238	40	510	17	--	13.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	5,559	68	97	39	185	17	--	16.6
	Facility Lighting	--	4,595	--	--	--	--	--	--	1.3
	Facility Support	--	1,269	0	5	2	15	0	--	24.1
	Onsite Transportation	--	78	--	99	*	W	--	--	5.0
	Conventional Electricity Generation	--	--	0	16	*	W	0	--	12.5
	Other Nonprocess Use	--	107	1	22	*	Q	0	--	41.2
	End Use Not Reported	20	1,942	Q	W	8	61	0	W	21.9
357	**Computer and Office Equipment**									
	RSE Column Factors:	NF	1.3	0.7	2.0	1.2	1.4	0.3	NF	
	TOTAL INPUTS	20	4,179	W	23	5	W	0	*	18.5
	Indirect Uses-Boiler Fuel	--	23	W	13	3	*	0	--	26.3
	Direct Uses-Total Process	--	1,499	0	0	*	0	0	--	20.4
	Process Heating	--	Q	0	0	*	0	0	--	34.0
	Process Cooling and Refrigeration	--	254	0	0	*	0	0	--	22.2
	Machine Drive	--	849	0	0	*	0	0	--	21.6
	Electro-Chemical Processes	--	14	--	--	--	--	--	--	1.8
	Other Process Use	--	102	0	0	*	0	0	--	18.6
	Direct Uses-Total Nonprocess	--	2,458	0	10	1	W	0	--	14.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1,267	0	*	1	Q	0	--	17.3
	Facility Lighting	--	728	--	--	--	--	--	--	1.5
	Facility Support	--	385	0	*	*	*	0	--	19.9
	Onsite Transportation	--	5	--	*	0	W	--	--	9.1
	Conventional Electricity Generation	--	--	0	8	0	0	0	--	4.1
	Other Nonprocess Use	--	74	0	Q	*	Q	0	--	24.8
	End Use Not Reported	1	199	0	0	*	*	0	*	34.2

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
36	**ELECTRONIC and OTHER ELECTRIC EQUIPMENT**									
	RSE Column Factors:	NF	0.7	1.1	1.5	0.7	1.3	0.9	NF	
	TOTAL INPUTS	230	33,148	415	290	84	622	W	W	10.6
	Indirect Uses-Boiler Fuel	--	214	296	174	29	23	W	--	15.6
	Direct Uses-Total Process	--	18,668	44	W	34	323	W	--	17.2
	Process Heating	--	5,486	Q	14	32	280	W	--	17.8
	Process Cooling and Refrigeration	--	1,913	17	*	*	0	0	--	25.8
	Machine Drive	--	9,671	0	W	1	11	0	--	21.2
	Electro-Chemical Processes	--	1,344	--	--	--	--	--	--	1.5
	Other Process Use	--	255	0	W	1	Q	0	--	31.0
	Direct Uses-Total Nonprocess	--	13,081	75	66	19	261	0	--	12.6
	Facility Heating, Ventilation, and Air Conditioning[f]	--	7,248	75	47	18	64	0	--	14.7
	Facility Lighting	--	4,414	--	--	--	--	--	--	1.3
	Facility Support	--	1,301	0	*	1	38	0	--	19.1
	Onsite Transportation	--	80	--	W	*	159	--	--	4.9
	Conventional Electricity Generation	--	--	0	W	*	W	0	--	1.5
	Other Nonprocess Use	--	38	0	*	*	W	0	--	27.8
	End Use Not Reported	Q	1,185	*	W	2	15	0	W	27.7
37	**TRANSPORTATION EQUIPMENT**									
	RSE Column Factors:	NF	0.6	1.2	1.3	0.7	1.4	1.2	NF	
	TOTAL INPUTS	358	38,773	1,781	1,123	150	W	1,245	W	9.6
	Indirect Uses-Boiler Fuel	--	510	910	430	50	W	1,225	--	14.5
	Direct Uses-Total Process	--	22,105	152	W	61	217	12	--	16.0
	Process Heating	--	3,437	152	W	59	175	12	--	18.3
	Process Cooling and Refrigeration	--	1,604	0	*	*	0	0	--	28.8
	Machine Drive	--	15,361	0	99	1	27	0	--	19.4
	Electro-Chemical Processes	--	596	--	--	--	--	--	--	1.5
	Other Process Use	--	1,108	0	150	1	14	0	--	24.3
	Direct Uses-Total Nonprocess	--	14,951	719	398	33	629	8	--	14.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	6,914	261	75	30	191	8	--	18.8
	Facility Lighting	--	6,303	--	--	--	--	--	--	1.3
	Facility Support	--	1,322	W	23	2	5	0	--	19.7
	Onsite Transportation	--	160	--	167	*	431	--	--	5.0
	Conventional Electricity Generation	--	--	W	114	1	*	0	--	16.1
	Other Nonprocess Use	--	252	126	18	*	2	0	--	31.6
	End Use Not Reported	33	1,208	0	W	6	43	0	W	22.6
3711	**Motor Vehicles and Car Bodies**									
	RSE Column Factors:	NF	1.2	0.6	2.0	0.8	1.8	0.5	NF	
	TOTAL INPUTS	105	8,845	300	81	51	88	571	8	20.4
	Indirect Uses-Boiler Fuel	--	368	300	17	13	6	571	--	28.3
	Direct Uses-Total Process	--	5,569	0	Q	28	9	0	--	14.7
	Process Heating	--	585	0	0	28	9	0	--	17.6
	Process Cooling and Refrigeration	--	568	0	0	*	0	0	--	14.1
	Machine Drive	--	3,786	0	Q	*	0	0	--	19.4
	Electro-Chemical Processes	--	224	--	--	--	--	--	--	1.7
	Other Process Use	--	407	0	0	0	0	0	--	16.6
	Direct Uses-Total Nonprocess	--	2,598	0	29	9	66	0	--	14.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1,414	0	Q	8	30	0	--	16.3
	Facility Lighting	--	940	--	--	--	--	--	--	1.5
	Facility Support	--	182	0	*	1	2	0	--	21.3
	Onsite Transportation	--	58	--	27	0	33	--	--	7.6
	Conventional Electricity Generation	--	--	0	1	0	0	0	--	3.9
	Other Nonprocess Use	--	5	0	*	0	0	0	--	39.7
	End Use Not Reported	9	311	0	*	0	7	0	8	24.5

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
3714	**Motor Vehicle Parts and Accessories**									
	RSE Column Factors:	NF	0.8	0.8	1.4	0.7	1.6	1.1	NF	
	TOTAL INPUTS	117	13,417	W	166	53	W	444	W	17.2
	Indirect Uses-Boiler Fuel	--	88	W	119	15	W	425	--	21.5
	Direct Uses-Total Process	--	9,048	0	W	24	75	12	--	16.4
	Process Heating	--	1,468	0	W	23	43	12	--	18.8
	Process Cooling and Refrigeration	--	365	0	0	*	0	0	--	29.1
	Machine Drive	--	6,693	0	1	*	23	0	--	16.5
	Electro-Chemical Processes	--	87	--	--	--	--	--	--	1.6
	Other Process Use	--	436	0	15	*	9	0	--	35.2
	Direct Uses-Total Nonprocess	--	4,080	0	25	12	288	8	--	19.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1,866	0	Q	11	20	8	--	20.0
	Facility Lighting	--	1,672	--	--	--	--	--	--	1.4
	Facility Support	--	371	0	1	1	*	0	--	19.1
	Onsite Transportation	--	54	--	9	*	266	--	--	5.7
	Conventional Electricity Generation	--	--	0	*	0	*	0	--	5.7
	Other Nonprocess Use	--	117	0	*	0	Q	0	--	38.9
	End Use Not Reported	7	201	0	W	2	10	0	W	32.1
38	**INSTRUMENTS and RELATED PRODUCTS**									
	RSE Column Factors:	NF	0.6	0.9	1.2	1.0	1.7	0.9	NF	
	TOTAL INPUTS	106	13,490	589	238	W	W	1,065	W	14.6
	Indirect Uses-Boiler Fuel	--	W	532	120	13	W	1,061	--	18.7
	Direct Uses-Total Process	--	5,295	Q	Q	5	13	0	--	13.1
	Process Heating	--	855	Q	Q	4	12	0	--	14.5
	Process Cooling and Refrigeration	--	916	0	0	*	0	0	--	22.1
	Machine Drive	--	3,197	0	*	*	Q	0	--	14.4
	Electro-Chemical Processes	--	100	--	--	--	--	--	--	1.5
	Other Process Use	--	227	0	*	*	*	0	--	35.8
	Direct Uses-Total Nonprocess	--	6,601	44	91	9	61	0	--	17.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	3,248	44	61	8	51	0	--	19.7
	Facility Lighting	--	2,373	--	--	--	--	--	--	1.3
	Facility Support	--	761	0	28	1	2	0	--	17.5
	Onsite Transportation	--	38	--	1	*	8	--	--	6.0
	Conventional Electricity Generation	--	--	0	1	*	*	0	--	10.5
	Other Nonprocess Use	--	181	0	*	*	*	0	--	21.7
	End Use Not Reported	9	W	0	19	W	3	Q	W	20.9
3841	**Surgical and Medical Instruments**									
	RSE Column Factors:	NF	0.9	0.9	1.8	1.0	1.6	0.5	NF	
	TOTAL INPUTS	7	1,347	16	13	2	30	0	*	19.4
	Indirect Uses-Boiler Fuel	--	13	16	11	1	*	0	--	23.2
	Direct Uses-Total Process	--	503	0	*	*	12	0	--	18.7
	Process Heating	--	72	0	*	*	12	0	--	22.5
	Process Cooling and Refrigeration	--	79	0	0	*	0	0	--	11.4
	Machine Drive	--	335	0	*	*	*	0	--	21.9
	Electro-Chemical Processes	--	7	--	--	--	--	--	--	1.8
	Other Process Use	--	10	0	*	*	0	0	--	31.9
	Direct Uses-Total Nonprocess	--	733	0	2	1	Q	0	--	13.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	408	0	1	1	Q	0	--	14.6
	Facility Lighting	--	226	--	--	--	--	--	--	1.4
	Facility Support	--	63	0	*	*	*	0	--	17.7
	Onsite Transportation	--	Q	--	*	0	Q	--	--	3.4
	Conventional Electricity Generation	--	--	0	*	0	*	0	--	7.7
	Other Nonprocess Use	--	34	0	0	0	*	0	--	31.6
	End Use Not Reported	1	Q	0	*	*	*	0	*	28.2

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Total (trillion Btu)	Net Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[e] (trillion Btu)	RSE Row Factors
39	**MISC. MANUFACTURING INDUSTRIES**									
	RSE Column Factors:	NF	1.2	0.6	1.6	0.9	1.6	0.7	NF	
	TOTAL INPUTS	51	5,575	142	209	19	W	37	W	19.6
	Indirect Uses-Boiler Fuel	--	34	106	66	5	W	37	--	30.0
	Direct Uses-Total Process	--	3,025	Q	W	7	34	0	--	12.9
	Process Heating	--	626	Q	W	6	28	0	--	14.8
	Process Cooling and Refrigeration	--	279	0	0	W	0	0	--	11.3
	Machine Drive	--	2,058	0	*	*	4	0	--	18.5
	Electro-Chemical Processes	--	47	--	--	--	--	--	--	1.8
	Other Process Use	--	16	0	2	W	2	0	--	33.5
	Direct Uses-Total Nonprocess	--	2,108	Q	Q	5	64	0	--	12.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	937	Q	33	5	Q	0	--	14.6
	Facility Lighting	--	896	--	--	--	--	--	--	1.6
	Facility Support	--	208	0	*	*	3	0	--	20.1
	Onsite Transportation	--	15	--	Q	*	41	--	--	5.2
	Conventional Electricity Generation	--	--	0	*	*	0	0	--	5.0
	Other Nonprocess Use	--	52	0	0	*	0	0	--	33.0
	End Use Not Reported	Q	408	Q	W	1	Q	0	W	25.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[c] Includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power.

[f] Excludes steam and hot water.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

-- Estimation of energy input is not applicable.

S=Negative value.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
20-39	**ALL INDUSTRY GROUPS**									
	RSE Column Factors:	NF	0.5	1.3	1.4	0.8	1.2	1.2	NF	
	TOTAL INPUTS	16,515	2,656	441	152	6,141	99	1,198	5,828	2.7
	Indirect Uses-Boiler Fuel	--	28	313	42	2,396	15	875	--	4.0
	Direct Uses-Total Process	--	2,075	106	51	2,872	54	302	--	3.8
	Process Heating	--	284	103	29	2,702	49	299	--	4.1
	Process Cooling and Refrigeration	--	138	*	*	21	2	*	--	17.5
	Machine Drive	--	1,367	3	18	95	3	3	--	7.7
	Electro-Chemical Processes	--	271	--	--	--	--	--	--	1.1
	Other Process Use	--	15	*	4	53	1	*	--	16.1
	Direct Uses-Total Nonprocess	--	457	14	49	726	25	8	--	5.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	217	5	7	351	5	3	--	6.5
	Facility Lighting	--	185	--	--	--	--	--	--	1.1
	Facility Support	--	46	3	1	30	1	*	--	12.1
	Onsite Transportation	--	4	--	35	1	19	--	--	3.9
	Conventional Electricity Generation	--	--	5	4	335	1	6	--	8.3
	Other Nonprocess Use	--	4	1	2	9	*	0	--	16.9
	End Use Not Reported	6,106	96	9	9	148	4	13	5,828	8.8
20	**FOOD and KINDRED PRODUCTS**									
	RSE Column Factors:	NF	0.6	1.3	1.8	0.9	1.2	0.7	NF	
	TOTAL INPUTS	1,183	198	30	19	630	6	165	136	5.8
	Indirect Uses-Boiler Fuel	--	3	26	10	366	2	154	--	8.1
	Direct Uses-Total Process	--	152	3	2	187	2	10	--	7.9
	Process Heating	--	8	3	1	178	2	W	--	9.0
	Process Cooling and Refrigeration	--	48	0	*	1	W	0	--	12.5
	Machine Drive	--	95	*	1	6	*	W	--	15.2
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.7
	Other Process Use	--	*	*	*	1	W	*	--	19.2
	Direct Uses-Total Nonprocess	--	32	*	6	56	2	1	--	10.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	14	W	1	35	*	W	--	15.5
	Facility Lighting	--	13	--	--	--	--	--	--	1.2
	Facility Support	--	3	*	*	5	*	W	--	21.0
	Onsite Transportation	--	*	--	3	*	2	--	--	4.4
	Conventional Electricity Generation	--	--	W	1	15	*	1	--	12.1
	Other Nonprocess Use	--	*	0	*	1	*	0	--	47.0
	End Use Not Reported	169	11	*	1	20	*	Q	136	16.2
2011	**Meat Packing Plants**									
	RSE Column Factors:	NF	1.0	1.1	1.6	0.9	1.5	0.4	NF	
	TOTAL INPUTS	53	13	1	1	36	W	W	2	12.2
	Indirect Uses-Boiler Fuel	--	*	1	*	25	*	*	--	14.9
	Direct Uses-Total Process	--	11	*	*	8	*	W	--	15.1
	Process Heating	--	*	*	*	7	*	W	--	17.0
	Process Cooling and Refrigeration	--	7	0	*	*	0	0	--	13.5
	Machine Drive	--	4	0	0	*	*	0	--	13.9
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	*	*	*	0	--	28.8
	Direct Uses-Total Nonprocess	--	2	*	*	2	W	W	--	12.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	*	*	2	*	W	--	16.9
	Facility Lighting	--	1	--	--	--	--	--	--	1.4
	Facility Support	--	*	*	*	*	W	0	--	25.8
	Onsite Transportation	--	*	--	*	0	*	--	--	4.5
	Conventional Electricity Generation	--	--	0	0	*	0	0	--	6.0
	Other Nonprocess Use	--	0	0	*	0	*	0	--	0.0
	End Use Not Reported	3	*	0	0	1	0	0	2	29.7

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2033	**Canned Fruits and Vegetables**									
	RSE Column Factors:	NF	0.8	0.8	1.8	0.9	1.2	0.8	NF	
	TOTAL INPUTS	51	5	2	1	43	W	W	*	13.6
	Indirect Uses-Boiler Fuel	--	*	1	*	35	*	W	--	20.9
	Direct Uses-Total Process	--	4	*	*	2	*	0	--	24.1
	Process Heating	--	*	*	0	2	*	0	--	29.0
	Process Cooling and Refrigeration	--	1	0	0	*	0	0	--	22.3
	Machine Drive	--	3	0	*	*	*	0	--	21.6
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	0	*	0	0	--	42.9
	Direct Uses-Total Nonprocess	--	1	*	*	6	W	0	--	12.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	*	*	2	W	0	--	17.2
	Facility Lighting	--	*	--	--	--	--	--	--	1.4
	Facility Support	--	*	0	*	*	W	0	--	20.3
	Onsite Transportation	--	*	--	*	0	*	--	--	5.7
	Conventional Electricity Generation	--	--	0	*	4	0	0	--	9.6
	Other Nonprocess Use	--	0	0	0	0	*	0	--	0.0
	End Use Not Reported	1	*	*	*	*	*	0	*	21.5
2037	**Frozen Fruits and Vegetables**									
	RSE Column Factors:	NF	1.1	1.1	1.8	0.8	1.4	0.4	NF	
	TOTAL INPUTS	42	10	1	*	28	*	0	2	13.5
	Indirect Uses-Boiler Fuel	--	*	1	*	21	*	0	--	19.1
	Direct Uses-Total Process	--	9	Q	*	5	*	0	--	13.3
	Process Heating	--	*	Q	*	5	*	0	--	18.0
	Process Cooling and Refrigeration	--	4	0	*	*	0	0	--	16.2
	Machine Drive	--	4	0	*	*	*	0	--	13.1
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	*	0	0	0	--	22.6
	Direct Uses-Total Nonprocess	--	1	*	*	1	*	0	--	15.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	*	*	1	*	0	--	20.7
	Facility Lighting	--	1	--	--	--	--	--	--	1.5
	Facility Support	--	*	*	0	*	*	0	--	26.3
	Onsite Transportation	--	*	--	*	0	*	--	--	5.9
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	4.2
	Other Nonprocess Use	--	*	0	*	0	0	0	--	30.8
	End Use Not Reported	2	0	*	*	*	*	0	2	37.7
2046	**Wet Corn Milling**									
	RSE Column Factors:	NF	1.1	0.8	1.7	0.9	1.5	0.5	NF	
	TOTAL INPUTS	173	19	1	*	68	*	78	5	18.1
	Indirect Uses-Boiler Fuel	--	*	1	*	35	*	78	--	24.3
	Direct Uses-Total Process	--	17	0	*	33	*	0	--	16.0
	Process Heating	--	*	0	*	33	*	0	--	23.6
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	19.7
	Machine Drive	--	17	0	*	0	0	0	--	14.8
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	1	0	*	*	*	0	--	13.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	*	*	*	0	--	17.9
	Facility Lighting	--	1	--	--	--	--	--	--	1.5
	Facility Support	--	*	0	*	*	0	0	--	25.7
	Onsite Transportation	--	*	--	*	0	*	--	--	6.8
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	4.5
	Other Nonprocess Use	--	*	0	0	*	0	0	--	41.0
	End Use Not Reported	6	*	0	0	*	0	0	5	35.1

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2051	**Bread, Cake, and Related Products**									
	RSE Column Factors:	NF	1.0	0.4	2.2	1.2	2.1	0.4	NF	
	TOTAL INPUTS	37	8	*	1	27	*	0	*	11.0
	Indirect Uses-Boiler Fuel	--	*	*	*	5	*	0	--	17.3
	Direct Uses-Total Process	--	6	*	*	19	*	0	--	10.4
	Process Heating	--	1	*	*	18	*	0	--	14.2
	Process Cooling and Refrigeration	--	1	0	0	*	0	0	--	22.7
	Machine Drive	--	4	0	0	*	0	0	--	8.4
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.0
	Other Process Use	--	*	0	*	*	0	0	--	20.7
	Direct Uses-Total Nonprocess	--	2	0	1	3	*	0	--	12.3
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	0	*	2	*	0	--	12.8
	Facility Lighting	--	1	--	--	--	--	--	--	1.4
	Facility Support	--	*	0	*	*	*	0	--	18.3
	Onsite Transportation	--	*	--	*	0	*	--	--	8.6
	Conventional Electricity Generation	--	--	0	*	1	*	0	--	9.1
	Other Nonprocess Use	--	*	0	*	0	0	0	--	0.0
	End Use Not Reported	2	*	0	0	1	*	0	*	29.5
2061	**Cane Sugar, Except Refining**									
	RSE Column Factors:	NF	1.4	0.9	1.0	0.8	1.3	0.8	NF	
	TOTAL INPUTS	105	W	W	1	2	W	W	99	18.1
	Indirect Uses-Boiler Fuel	--	*	2	*	2	*	W	--	19.9
	Direct Uses-Total Process	--	W	*	*	*	*	0	--	26.9
	Process Heating	--	*	W	*	*	0	0	--	27.1
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	26.5
	Machine Drive	--	*	W	*	0	0	0	--	24.6
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.8
	Other Process Use	--	W	0	0	0	*	0	--	22.5
	Direct Uses-Total Nonprocess	--	*	W	1	W	W	0	--	21.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	W	W	0	--	21.3
	Facility Lighting	--	*	--	--	--	--	--	--	1.1
	Facility Support	--	*	0	0	*	0	0	--	27.7
	Onsite Transportation	--	0	--	*	0	*	--	--	4.7
	Conventional Electricity Generation	--	--	W	*	0	0	0	--	8.2
	Other Nonprocess Use	--	*	0	*	0	0	0	--	21.6
	End Use Not Reported	100	W	W	*	W	0	0	99	26.7
2062	**Cane Sugar Refining**									
	RSE Column Factors:	NF	1.3	0.8	1.7	1.0	1.4	0.4	NF	
	TOTAL INPUTS	23	*	2	1	16	*	0	4	20.9
	Indirect Uses-Boiler Fuel	--	*	2	*	15	*	0	--	22.8
	Direct Uses-Total Process	--	*	*	*	1	*	0	--	25.4
	Process Heating	--	*	*	*	1	*	0	--	27.6
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	28.3
	Machine Drive	--	*	*	*	0	0	0	--	30.7
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.1
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	*	0	*	*	*	0	--	21.7
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	*	0	0	--	33.0
	Facility Lighting	--	*	--	--	--	--	--	--	1.7
	Facility Support	--	*	0	*	0	0	0	--	22.3
	Onsite Transportation	--	*	--	*	0	*	--	--	8.5
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	4.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	4	0	0	0	0	*	0	4	34.8

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2063	**Beet Sugar**									
	RSE Column Factors:	NF	0.9	0.9	1.2	1.0	1.1	1.0	NF	
	TOTAL INPUTS	64	1	2	W	19	W	39	2	3.1
	Indirect Uses-Boiler Fuel	--	W	1	*	12	0	29	--	5.3
	Direct Uses-Total Process	--	1	1	W	6	*	10	--	5.0
	Process Heating	--	*	1	W	6	W	W	--	6.0
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	11.2
	Machine Drive	--	1	0	0	*	W	W	--	7.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	*	0	*	*	W	1	--	3.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	*	W	W	--	5.8
	Facility Lighting	--	*	--	--	--	--	--	--	1.2
	Facility Support	--	*	0	0	*	W	W	--	6.6
	Onsite Transportation	--	*	--	*	0	*	--	--	2.6
	Conventional Electricity Generation	--	--	0	*	*	0	W	--	4.8
	Other Nonprocess Use	--	0	0	0	0	*	0	--	9.0
	End Use Not Reported	W	W	0	0	0	0	0	2	11.2
2075	**Soybean Oil Mills**									
	RSE Column Factors:	NF	1.4	0.8	1.2	1.0	0.9	0.9	NF	
	TOTAL INPUTS	56	6	1	W	30	W	15	3	1.3
	Indirect Uses-Boiler Fuel	--	*	W	*	21	W	W	--	1.4
	Direct Uses-Total Process	--	6	0	W	7	W	W	--	1.0
	Process Heating	--	*	0	W	6	0	W	--	0.9
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	2.9
	Machine Drive	--	5	0	W	0	0	0	--	0.8
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.0
	Other Process Use	--	*	0	0	1	W	0	--	1.0
	Direct Uses-Total Nonprocess	--	*	W	*	W	W	W	--	1.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	W	0	W	W	0	--	1.0
	Facility Lighting	--	*	--	--	--	--	--	--	1.2
	Facility Support	--	*	*	0	*	0	0	--	1.0
	Onsite Transportation	--	*	--	W	0	W	--	--	2.1
	Conventional Electricity Generation	--	--	0	W	W	0	W	--	0.9
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	*	0	*	W	*	0	3	0.9
2082	**Malt Beverages**									
	RSE Column Factors:	NF	1.7	0.2	2.3	1.5	1.3	0.6	NF	
	TOTAL INPUTS	51	8	W	*	22	W	17	*	6.8
	Indirect Uses-Boiler Fuel	--	W	W	*	20	W	17	--	9.0
	Direct Uses-Total Process	--	6	W	*	2	W	0	--	7.9
	Process Heating	--	W	W	0	2	W	0	--	16.5
	Process Cooling and Refrigeration	--	3	0	*	0	0	0	--	5.7
	Machine Drive	--	3	0	0	0	0	0	--	4.2
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.1
	Other Process Use	--	W	0	0	0	0	0	--	0.6
	Direct Uses-Total Nonprocess	--	1	W	*	1	W	0	--	10.3
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	W	*	1	W	0	--	8.1
	Facility Lighting	--	1	--	--	--	--	--	--	1.5
	Facility Support	--	W	0	0	0	0	0	--	13.8
	Onsite Transportation	--	*	--	*	*	W	--	--	5.8
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.6
	Other Nonprocess Use	--	W	0	*	0	0	0	--	2.1
	End Use Not Reported	W	W	0	0	0	*	0	*	12.0

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
21	**TOBACCO PRODUCTS**									
	RSE Column Factors:	NF	1.0	0.9	1.7	0.8	1.4	0.6	NF	
	TOTAL INPUTS	W	3	1	W	W	W	W	W	23.5
	Indirect Uses-Boiler Fuel	--	W	1	*	2	W	W	--	25.8
	Direct Uses-Total Process	--	2	*	W	1	*	0	--	26.3
	Process Heating	--	*	*	*	1	*	0	--	26.5
	Process Cooling and Refrigeration	--	*	*	0	*	0	0	--	35.9
	Machine Drive	--	2	0	W	*	0	0	--	28.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	*	0	0	*	0	0	--	45.6
	Direct Uses-Total Nonprocess	--	1	*	*	W	*	0	--	29.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	*	0	W	*	0	--	40.6
	Facility Lighting	--	*	--	--	--	--	--	--	1.6
	Facility Support	--	*	*	0	*	0	0	--	42.6
	Onsite Transportation	--	0	--	*	0	*	--	--	5.4
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	4.8
	Other Nonprocess Use	--	0	0	*	0	*	0	--	24.6
	End Use Not Reported	*	W	0	0	0	0	0	W	0.0
22	**TEXTILE MILL PRODUCTS**									
	RSE Column Factors:	NF	0.9	0.8	1.3	0.9	1.2	0.9	NF	
	TOTAL INPUTS	310	111	17	W	117	W	40	14	11.9
	Indirect Uses-Boiler Fuel	--	1	15	6	69	W	40	--	15.8
	Direct Uses-Total Process	--	76	1	W	36	3	0	--	15.1
	Process Heating	--	5	1	W	33	3	0	--	19.3
	Process Cooling and Refrigeration	--	7	0	0	*	0	0	--	13.2
	Machine Drive	--	63	*	*	Q	*	0	--	6.6
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.9
	Other Process Use	--	1	0	0	*	*	0	--	54.0
	Direct Uses-Total Nonprocess	--	29	W	*	8	1	W	--	18.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	16	W	*	7	W	W	--	17.0
	Facility Lighting	--	11	--	--	--	--	--	--	1.4
	Facility Support	--	2	W	*	W	W	0	--	27.6
	Onsite Transportation	--	*	--	*	*	W	--	--	8.2
	Conventional Electricity Generation	--	--	0	W	W	W	W	--	14.4
	Other Nonprocess Use	--	*	*	W	0	0	0	--	35.3
	End Use Not Reported	23	6	W	W	3	*	W	14	26.6
23	**APPAREL and OTHER TEXTILE PRODUCTS**									
	RSE Column Factors:	NF	1.3	0.8	1.7	0.9	1.6	0.4	NF	
	TOTAL INPUTS	56	26	W	1	25	W	W	W	16.3
	Indirect Uses-Boiler Fuel	--	W	*	*	9	*	W	--	26.4
	Direct Uses-Total Process	--	11	W	W	7	*	0	--	10.4
	Process Heating	--	1	0	*	5	*	0	--	17.4
	Process Cooling and Refrigeration	--	*	0	0	*	0	0	--	19.5
	Machine Drive	--	10	W	W	2	*	0	--	14.5
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.1
	Other Process Use	--	*	0	W	*	*	0	--	53.1
	Direct Uses-Total Nonprocess	--	11	0	*	8	*	0	--	16.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	6	0	*	7	*	0	--	20.0
	Facility Lighting	--	4	--	--	--	--	--	--	1.6
	Facility Support	--	1	0	*	1	*	0	--	17.0
	Onsite Transportation	--	*	--	*	0	*	--	--	8.0
	Conventional Electricity Generation	--	--	0	0	*	0	0	--	0.8
	Other Nonprocess Use	--	*	0	*	*	0	0	--	0.0
	End Use Not Reported	6	W	0	W	2	W	0	W	19.3

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
24	**LUMBER and WOOD PRODUCTS**									
	RSE Column Factors:	NF	0.8	1.4	1.4	0.8	1.1	0.7	NF	
	TOTAL INPUTS	435	68	W	22	48	W	W	290	8.9
	Indirect Uses-Boiler Fuel	--	1	1	1	15	W	W	--	19.5
	Direct Uses-Total Process	--	53	*	11	24	1	0	--	11.8
	Process Heating	--	3	*	1	21	1	0	--	14.7
	Process Cooling and Refrigeration	--	*	0	0	*	W	0	--	21.8
	Machine Drive	--	49	0	9	1	*	0	--	12.9
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	1	0	Q	Q	W	0	--	22.2
	Direct Uses-Total Nonprocess	--	9	W	8	7	2	0	--	10.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	3	W	Q	7	*	0	--	15.5
	Facility Lighting	--	4	--	--	--	--	--	--	1.3
	Facility Support	--	1	0	*	*	*	0	--	23.3
	Onsite Transportation	--	*	--	7	*	2	--	--	4.5
	Conventional Electricity Generation	--	--	0	*	*	0	0	--	5.3
	Other Nonprocess Use	--	*	0	*	*	*	0	--	35.2
	End Use Not Reported	300	5	0	2	3	*	0	290	16.0
2421	**Sawmills and Planing Mills, General**									
	RSE Column Factors:	NF	0.7	1.0	1.4	1.1	1.5	0.6	NF	
	TOTAL INPUTS	198	22	W	7	11	W	0	157	13.0
	Indirect Uses-Boiler Fuel	--	*	*	*	5	W	0	--	27.6
	Direct Uses-Total Process	--	18	*	2	5	*	0	--	14.4
	Process Heating	--	1	*	*	5	*	0	--	20.0
	Process Cooling and Refrigeration	--	*	0	0	*	W	0	--	0.0
	Machine Drive	--	17	0	2	*	*	0	--	14.4
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	0.9
	Other Process Use	--	*	0	0	0	W	0	--	31.7
	Direct Uses-Total Nonprocess	--	2	W	4	*	*	0	--	13.6
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	W	*	*	*	0	--	22.2
	Facility Lighting	--	1	--	--	--	--	--	--	1.4
	Facility Support	--	*	0	*	*	*	0	--	18.2
	Onsite Transportation	--	*	--	4	0	*	--	--	3.6
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	1.5
	Other Nonprocess Use	--	*	0	*	0	*	0	--	23.9
	End Use Not Reported	161	2	0	1	*	*	0	157	24.5
2436	**Softwood Veneer and Plywood**									
	RSE Column Factors:	NF	1.6	0.4	1.8	1.5	1.4	0.4	NF	
	TOTAL INPUTS	73	9	*	1	3	1	0	60	7.7
	Indirect Uses-Boiler Fuel	--	*	*	*	*	*	0	--	11.9
	Direct Uses-Total Process	--	7	0	*	2	*	0	--	11.5
	Process Heating	--	1	0	0	2	*	0	--	12.0
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	8.2
	Machine Drive	--	6	0	W	0	W	0	--	12.6
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.8
	Other Process Use	--	W	0	W	0	W	0	--	12.5
	Direct Uses-Total Nonprocess	--	1	0	1	*	*	0	--	11.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	*	*	*	0	--	15.4
	Facility Lighting	--	1	--	--	--	--	--	--	1.6
	Facility Support	--	*	0	0	0	0	0	--	10.1
	Onsite Transportation	--	*	--	1	0	*	--	--	5.5
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	3.6
	Other Nonprocess Use	--	*	0	*	0	0	0	--	13.6
	End Use Not Reported	60	*	0	*	*	*	0	60	19.3

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2493	**Reconstituted Wood Products**									
	RSE Column Factors:	NF	1.1	1.2	1.3	0.8	1.2	0.6	NF	
	TOTAL INPUTS	71	15	W	W	18	W	W	33	13.1
	Indirect Uses-Boiler Fuel	--	W	1	*	5	W	W	--	18.4
	Direct Uses-Total Process	--	13	*	*	11	1	0	--	16.1
	Process Heating	--	1	*	*	9	1	0	--	16.6
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	16.4
	Machine Drive	--	12	0	*	1	*	0	--	18.4
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.9
	Other Process Use	--	1	0	0	Q	*	0	--	22.8
	Direct Uses-Total Nonprocess	--	1	W	*	1	*	0	--	14.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	W	0	1	*	0	--	19.6
	Facility Lighting	--	1	--	--	--	--	--	--	1.5
	Facility Support	--	W	0	*	*	*	0	--	24.9
	Onsite Transportation	--	W	--	*	0	*	--	--	4.7
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	4.2
	Other Nonprocess Use	--	*	0	0	0	0	0	--	0.0
	End Use Not Reported	34	W	0	W	1	*	0	33	36.0
25	**FURNITURE and FIXTURES**									
	RSE Column Factors:	NF	0.8	1.1	1.3	0.7	1.1	1.2	NF	
	TOTAL INPUTS	65	22	*	1	23	1	3	14	11.7
	Indirect Uses-Boiler Fuel	--	*	*	*	4	*	2	--	20.5
	Direct Uses-Total Process	--	14	*	*	9	*	*	--	18.7
	Process Heating	--	1	*	*	8	*	*	--	23.8
	Process Cooling and Refrigeration	--	*	0	0	*	0	0	--	38.6
	Machine Drive	--	12	*	*	*	*	*	--	25.8
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	0	*	*	0	--	45.7
	Direct Uses-Total Nonprocess	--	7	*	*	9	1	*	--	14.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	3	*	*	9	*	*	--	19.3
	Facility Lighting	--	4	--	--	--	--	--	--	1.4
	Facility Support	--	1	0	0	*	*	0	--	20.0
	Onsite Transportation	--	*	--	*	0	W	--	--	5.1
	Conventional Electricity Generation	--	--	0	0	0	W	0	--	6.9
	Other Nonprocess Use	--	*	0	*	*	*	0	--	39.8
	End Use Not Reported	18	2	*	*	2	*	*	14	30.2
2511	***Wood Furniture, Except Upholstered***									
	RSE Column Factors:	NF	0.6	1.1	1.2	1.0	1.4	1.0	NF	
	TOTAL INPUTS	24	7	*	*	2	*	1	12	15.8
	Indirect Uses-Boiler Fuel	--	*	*	*	*	*	1	--	25.3
	Direct Uses-Total Process	--	5	*	*	*	*	*	--	33.1
	Process Heating	--	*	*	*	*	*	*	--	37.3
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	46.6
	Machine Drive	--	5	*	*	*	*	*	--	31.3
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	0.9
	Other Process Use	--	*	0	0	*	0	0	--	57.1
	Direct Uses-Total Nonprocess	--	1	*	*	1	*	*	--	23.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	*	*	1	*	*	--	28.6
	Facility Lighting	--	1	--	--	--	--	--	--	1.4
	Facility Support	--	*	0	0	*	*	0	--	30.6
	Onsite Transportation	--	*	--	*	0	W	--	--	5.8
	Conventional Electricity Generation	--	--	0	0	0	W	0	--	7.4
	Other Nonprocess Use	--	0	0	*	*	*	0	--	32.6
	End Use Not Reported	13	*	0	*	*	*	*	12	39.1

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
26	**PAPER and ALLIED PRODUCTS**									
	RSE Column Factors:	NF	0.6	1.1	1.2	0.7	1.4	1.3	NF	
	TOTAL INPUTS	2,634	223	173	9	574	5	307	1,343	3.5
	Indirect Uses-Boiler Fuel	--	5	138	5	401	1	299	--	5.4
	Direct Uses-Total Process	--	191	32	W	115	2	W	--	6.8
	Process Heating	--	6	30	1	102	1	W	--	8.1
	Process Cooling and Refrigeration	--	3	0	0	1	0	0	--	12.0
	Machine Drive	--	179	1	1	10	*	W	--	13.3
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	0.9
	Other Process Use	--	3	0	W	2	*	0	--	15.2
	Direct Uses-Total Nonprocess	--	24	2	2	51	3	W	--	6.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	11	W	*	17	W	W	--	11.6
	Facility Lighting	--	10	--	--	--	--	--	--	1.2
	Facility Support	--	2	W	*	1	*	0	--	16.6
	Onsite Transportation	--	*	--	2	*	2	--	--	2.5
	Conventional Electricity Generation	--	--	W	*	31	W	W	--	9.8
	Other Nonprocess Use	--	*	W	*	2	*	0	--	25.3
	End Use Not Reported	1,357	5	1	W	7	*	W	1,343	12.7
2611	**Pulp Mills**									
	RSE Column Factors:	NF	1.3	0.7	1.2	1.0	1.2	0.7	NF	
	TOTAL INPUTS	251	7	23	W	22	W	7	190	13.0
	Indirect Uses-Boiler Fuel	--	*	18	1	14	*	7	--	16.5
	Direct Uses-Total Process	--	6	4	*	7	*	0	--	13.3
	Process Heating	--	*	4	*	7	*	0	--	16.2
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	19.5
	Machine Drive	--	6	0	*	*	*	0	--	19.0
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	0	0	*	0	--	22.2
	Direct Uses-Total Nonprocess	--	1	0	*	1	*	0	--	12.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	*	1	0	0	--	19.7
	Facility Lighting	--	*	--	--	--	--	--	--	1.5
	Facility Support	--	*	0	0	*	*	0	--	21.0
	Onsite Transportation	--	0	--	*	0	*	--	--	3.7
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.8
	Other Nonprocess Use	--	*	0	0	0	0	0	--	18.8
	End Use Not Reported	191	0	1	W	0	W	0	190	30.3
2621	**Paper Mills**									
	RSE Column Factors:	NF	0.7	1.0	1.1	0.8	1.1	1.4	NF	
	TOTAL INPUTS	1,292	117	94	4	271	2	195	609	5.2
	Indirect Uses-Boiler Fuel	--	1	76	2	195	W	W	--	9.0
	Direct Uses-Total Process	--	106	17	1	48	1	W	--	9.6
	Process Heating	--	1	17	1	44	1	W	--	12.1
	Process Cooling and Refrigeration	--	1	0	0	*	0	0	--	20.9
	Machine Drive	--	102	1	*	W	*	W	--	13.8
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	0.9
	Other Process Use	--	2	0	*	W	0	0	--	25.0
	Direct Uses-Total Nonprocess	--	8	W	1	26	1	W	--	8.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	4	W	W	3	*	W	--	11.5
	Facility Lighting	--	3	--	--	--	--	--	--	1.3
	Facility Support	--	1	W	*	*	*	0	--	18.0
	Onsite Transportation	--	*	--	1	0	1	--	--	3.3
	Conventional Electricity Generation	--	--	W	W	23	0	W	--	10.7
	Other Nonprocess Use	--	*	W	*	*	*	0	--	25.7
	End Use Not Reported	614	2	W	*	2	W	0	609	16.8

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2631	**Paperboard Mills**									
	RSE Column Factors:	NF	0.8	1.0	1.1	0.9	1.0	1.2	NF	
	TOTAL INPUTS	930	46	50	W	199	W	101	531	2.6
	Indirect Uses-Boiler Fuel	--	2	39	1	150	W	W	--	4.8
	Direct Uses-Total Process	--	40	9	W	36	*	W	--	5.0
	Process Heating	--	1	W	*	31	*	W	--	6.8
	Process Cooling and Refrigeration	--	*	0	0	W	0	0	--	8.5
	Machine Drive	--	38	W	W	W	W	0	--	7.6
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.5
	Other Process Use	--	W	0	W	0	W	0	--	12.1
	Direct Uses-Total Nonprocess	--	3	W	1	12	*	W	--	6.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	W	W	W	*	0	--	7.7
	Facility Lighting	--	2	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	W	*	0	0	--	9.8
	Onsite Transportation	--	*	--	1	0	*	--	--	2.7
	Conventional Electricity Generation	--	--	W	W	9	0	W	--	7.7
	Other Nonprocess Use	--	W	0	*	W	0	0	--	13.5
	End Use Not Reported	535	1	W	W	2	W	W	531	9.5
27	**PRINTING and PUBLISHING**									
	RSE Column Factors:	NF	0.7	1.2	1.8	0.9	1.7	0.4	NF	
	TOTAL INPUTS	112	59	W	2	47	W	0	2	7.8
	Indirect Uses-Boiler Fuel	--	*	*	1	11	W	0	--	14.0
	Direct Uses-Total Process	--	31	W	*	17	*	0	--	8.1
	Process Heating	--	2	0	*	15	*	0	--	11.2
	Process Cooling and Refrigeration	--	2	0	0	*	0	0	--	15.2
	Machine Drive	--	27	0	*	1	*	0	--	13.0
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.6
	Other Process Use	--	*	W	*	*	*	0	--	28.6
	Direct Uses-Total Nonprocess	--	22	W	1	15	1	0	--	11.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	12	W	1	14	*	0	--	11.4
	Facility Lighting	--	7	--	--	--	--	--	--	1.3
	Facility Support	--	3	*	*	1	*	0	--	15.6
	Onsite Transportation	--	*	--	W	*	*	--	--	5.4
	Conventional Electricity Generation	--	--	0	W	*	0	0	--	9.0
	Other Nonprocess Use	--	*	0	*	*	*	0	--	35.4
	End Use Not Reported	13	6	0	*	5	*	0	2	16.8
28	**CHEMICALS and ALLIED PRODUCTS**									
	RSE Column Factors:	NF	0.6	1.2	1.0	0.8	1.6	1.0	NF	
	TOTAL INPUTS	3,273	520	60	13	1,895	W	257	W	6.1
	Indirect Uses-Boiler Fuel	--	8	37	7	931	1	245	--	9.3
	Direct Uses-Total Process	--	463	18	W	707	2	10	--	8.8
	Process Heating	--	21	18	2	638	1	W	--	9.5
	Process Cooling and Refrigeration	--	32	*	*	11	W	*	--	24.5
	Machine Drive	--	340	*	1	39	*	W	--	16.6
	Electro-Chemical Processes	--	70	--	--	--	--	--	--	1.3
	Other Process Use	--	1	*	W	20	W	0	--	20.2
	Direct Uses-Total Nonprocess	--	43	W	3	230	1	W	--	10.3
	Facility Heating, Ventilation, and Air Conditioning[f]	--	21	W	*	17	*	1	--	15.7
	Facility Lighting	--	16	--	--	--	--	--	--	1.3
	Facility Support	--	4	W	*	3	W	0	--	11.0
	Onsite Transportation	--	*	--	2	*	1	--	--	5.1
	Conventional Electricity Generation	--	--	W	*	207	W	W	--	13.7
	Other Nonprocess Use	--	1	W	*	3	*	0	--	18.2
	End Use Not Reported	559	6	W	W	27	W	W	W	15.4

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2812	**Alkalies and Chlorine**									
	RSE Column Factors:	NF	0.9	1.0	1.1	1.0	1.2	0.8	NF	
	TOTAL INPUTS	129	46	W	*	53	*	W	W	8.3
	Indirect Uses-Boiler Fuel	--	W	W	*	W	*	W	--	10.9
	Direct Uses-Total Process	--	45	0	W	2	*	0	--	7.8
	Process Heating	--	W	0	W	W	0	0	--	9.5
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	6.9
	Machine Drive	--	4	0	W	*	*	0	--	9.3
	Electro-Chemical Processes	--	41	--	--	--	--	--	--	1.3
	Other Process Use	--	W	0	0	W	0	0	--	14.9
	Direct Uses-Total Nonprocess	--	W	W	W	W	*	0	--	8.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	W	0	W	0	0	--	8.1
	Facility Lighting	--	*	--	--	--	--	--	--	1.4
	Facility Support	--	W	0	0	W	0	0	--	12.6
	Onsite Transportation	--	0	--	W	0	*	--	--	2.8
	Conventional Electricity Generation	--	--	0	0	W	0	0	--	3.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	0	0	*	0	*	0	W	12.1
2813	**Industrial Gases**									
	RSE Column Factors:	NF	0.7	0.9	1.0	1.5	1.4	0.9	NF	
	TOTAL INPUTS	99	80	0	W	19	W	0	*	16.1
	Indirect Uses-Boiler Fuel	--	W	0	*	6	*	0	--	36.3
	Direct Uses-Total Process	--	74	0	0	9	*	0	--	18.3
	Process Heating	--	1	0	0	9	*	0	--	28.7
	Process Cooling and Refrigeration	--	2	0	0	0	0	0	--	24.4
	Machine Drive	--	70	0	0	*	0	0	--	14.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	*	0	0	*	0	0	--	74.8
	Direct Uses-Total Nonprocess	--	2	0	W	3	*	0	--	20.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	0	0	*	*	0	--	20.6
	Facility Lighting	--	1	--	--	--	--	--	--	1.4
	Facility Support	--	*	0	0	*	0	0	--	21.2
	Onsite Transportation	--	0	--	W	0	0	--	--	1.2
	Conventional Electricity Generation	--	--	0	0	2	0	0	--	6.5
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	1	W	0	0	0	W	0	*	56.5
2816	**Inorganic Pigments**									
	RSE Column Factors:	NF	1.4	0.7	1.2	0.8	1.2	1.0	NF	
	TOTAL INPUTS	40	8	W	W	W	W	W	W	9.1
	Indirect Uses-Boiler Fuel	--	W	W	*	10	*	W	--	11.7
	Direct Uses-Total Process	--	8	0	W	11	W	W	--	10.1
	Process Heating	--	W	0	*	11	W	W	--	10.6
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	7.2
	Machine Drive	--	5	0	W	*	W	0	--	12.4
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.6
	Other Process Use	--	W	0	0	0	*	0	--	14.3
	Direct Uses-Total Nonprocess	--	*	0	*	*	*	0	--	7.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	*	*	*	0	--	9.6
	Facility Lighting	--	*	--	--	--	--	--	--	1.4
	Facility Support	--	W	0	0	*	*	0	--	9.1
	Onsite Transportation	--	W	--	*	0	*	--	--	4.2
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.7
	Other Nonprocess Use	--	0	0	*	0	0	0	--	17.0
	End Use Not Reported	W	W	0	W	W	*	0	W	16.6

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2819	**Industrial Inorganic Chemicals, nec.**									
	RSE Column Factors:	NF	1.3	0.8	1.3	0.8	1.3	0.7	NF	
	TOTAL INPUTS	344	144	4	W	W	W	32	W	11.4
	Indirect Uses-Boiler Fuel	--	*	1	1	73	*	26	--	13.9
	Direct Uses-Total Process	--	140	3	*	63	*	W	--	14.0
	Process Heating	--	7	3	*	61	*	W	--	13.0
	Process Cooling and Refrigeration	--	1	0	0	0	0	0	--	8.2
	Machine Drive	--	118	0	*	Q	*	0	--	25.2
	Electro-Chemical Processes	--	14	--	--	--	--	--	--	1.5
	Other Process Use	--	0	0	*	*	0	0	--	19.9
	Direct Uses-Total Nonprocess	--	4	*	*	4	*	W	--	12.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	2	*	*	2	*	W	--	16.3
	Facility Lighting	--	1	--	--	--	--	--	--	1.5
	Facility Support	--	1	0	W	*	*	0	--	17.0
	Onsite Transportation	--	*	--	W	0	*	--	--	6.3
	Conventional Electricity Generation	--	--	0	*	2	0	0	--	6.6
	Other Nonprocess Use	--	*	0	*	0	0	0	--	19.9
	End Use Not Reported	23	*	*	W	W	W	0	W	30.9
2821	**Plastics Materials and Resins**									
	RSE Column Factors:	NF	0.8	0.9	1.2	1.0	1.7	0.7	NF	
	TOTAL INPUTS	319	56	3	1	W	W	19	50	9.2
	Indirect Uses-Boiler Fuel	--	1	W	1	116	*	19	--	10.8
	Direct Uses-Total Process	--	48	W	W	52	W	0	--	13.2
	Process Heating	--	2	W	*	38	W	0	--	16.9
	Process Cooling and Refrigeration	--	5	0	0	*	W	0	--	9.5
	Machine Drive	--	36	0	W	6	W	0	--	10.8
	Electro-Chemical Processes	--	6	--	--	--	--	--	--	1.6
	Other Process Use	--	*	*	*	8	W	0	--	24.4
	Direct Uses-Total Nonprocess	--	5	*	*	20	*	0	--	11.6
	Facility Heating, Ventilation, and Air Conditioning[f]	--	2	0	*	1	*	0	--	12.9
	Facility Lighting	--	2	--	--	--	--	--	--	1.3
	Facility Support	--	1	0	W	W	*	0	--	11.8
	Onsite Transportation	--	W	--	W	0	*	--	--	4.1
	Conventional Electricity Generation	--	--	0	W	W	0	0	--	5.9
	Other Nonprocess Use	--	W	*	W	*	0	0	--	22.1
	End Use Not Reported	52	1	0	W	W	W	0	50	22.9
2822	**Synthetic Rubber**									
	RSE Column Factors:	NF	1.1	0.6	1.3	1.3	1.3	0.7	NF	
	TOTAL INPUTS	63	8	W	*	42	W	W	9	21.0
	Indirect Uses-Boiler Fuel	--	W	W	*	23	0	W	--	28.1
	Direct Uses-Total Process	--	7	0	W	18	0	0	--	18.1
	Process Heating	--	*	0	0	16	0	0	--	21.2
	Process Cooling and Refrigeration	--	1	0	0	*	0	0	--	22.6
	Machine Drive	--	5	0	W	*	0	0	--	20.4
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	*	0	0	2	0	0	--	33.4
	Direct Uses-Total Nonprocess	--	1	0	*	*	W	0	--	15.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	*	W	0	--	18.5
	Facility Lighting	--	*	--	--	--	--	--	--	1.6
	Facility Support	--	*	0	*	*	0	0	--	23.4
	Onsite Transportation	--	*	--	*	0	*	--	--	7.3
	Conventional Electricity Generation	--	--	0	0	*	0	0	--	5.6
	Other Nonprocess Use	--	0	0	*	*	0	0	--	33.4
	End Use Not Reported	9	W	0	W	*	0	0	9	20.8

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2823	**Cellulosic Manmade Fibers**									
	RSE Column Factors:	NF	1.0	1.0	1.0	1.0	1.0	1.0	NF	
	TOTAL INPUTS	28	1	0	*	W	W	W	W	1.0
	Indirect Uses-Boiler Fuel	--	W	0	W	W	0	W	--	1.0
	Direct Uses-Total Process	--	1	0	W	W	*	0	--	1.0
	Process Heating	--	W	0	W	W	*	0	--	1.0
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	1.0
	Machine Drive	--	1	0	*	0	0	0	--	1.0
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	W	0	*	*	W	0	--	1.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	*	0	0	--	1.0
	Facility Lighting	--	*	--	--	--	--	--	--	1.0
	Facility Support	--	W	0	0	*	0	0	--	1.0
	Onsite Transportation	--	W	--	*	0	W	--	--	1.0
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.0
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	*	0	0	0	0	0	W	1.0
2824	**Organic Fibers, Noncellulosic**									
	RSE Column Factors:	NF	0.9	0.8	1.4	1.3	1.2	0.6	NF	
	TOTAL INPUTS	114	24	9	1	W	W	35	W	6.8
	Indirect Uses-Boiler Fuel	--	W	W	*	32	W	35	--	7.9
	Direct Uses-Total Process	--	20	W	W	W	*	0	--	8.1
	Process Heating	--	W	W	W	W	*	0	--	8.2
	Process Cooling and Refrigeration	--	3	0	0	W	0	0	--	8.9
	Machine Drive	--	13	0	W	*	0	0	--	9.0
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.6
	Other Process Use	--	*	0	0	0	0	0	--	15.4
	Direct Uses-Total Nonprocess	--	4	0	*	W	*	0	--	4.7
	Facility Heating, Ventilation, and Air Conditioning[f]	--	2	0	W	W	W	0	--	7.7
	Facility Lighting	--	1	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	0	*	W	0	--	10.5
	Onsite Transportation	--	W	--	W	*	W	--	--	4.7
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	3.7
	Other Nonprocess Use	--	W	0	W	0	*	0	--	14.2
	End Use Not Reported	8	W	0	W	W	W	0	W	11.2
2861	**Gum and Wood Chemicals**									
	RSE Column Factors:	NF	1.2	1.0	1.2	1.2	1.1	0.6	NF	
	TOTAL INPUTS	10	1	*	W	4	W	0	5	6.9
	Indirect Uses-Boiler Fuel	--	W	0	W	W	W	0	--	8.7
	Direct Uses-Total Process	--	1	*	W	W	W	0	--	7.2
	Process Heating	--	*	*	W	W	W	0	--	8.9
	Process Cooling and Refrigeration	--	*	0	0	W	0	0	--	17.5
	Machine Drive	--	*	0	W	0	W	0	--	7.1
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.6
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	W	0	W	*	W	0	--	6.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	*	W	0	--	8.7
	Facility Lighting	--	*	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	0	*	0	0	--	7.2
	Onsite Transportation	--	0	--	W	0	W	--	--	2.8
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	W	0	W	W	W	0	5	7.6

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2865	**Cyclic Crudes and Intermediates**									
	RSE Column Factors:	NF	1.3	0.8	1.2	1.2	1.2	0.6	NF	
	TOTAL INPUTS	155	16	W	1	98	1	W	25	19.7
	Indirect Uses-Boiler Fuel	--	1	W	1	65	Q	W	--	21.7
	Direct Uses-Total Process	--	13	*	W	26	*	0	--	17.7
	Process Heating	--	2	*	*	25	*	0	--	22.2
	Process Cooling and Refrigeration	--	2	0	0	W	0	0	--	19.0
	Machine Drive	--	9	0	W	W	*	0	--	16.3
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	*	0	0	0	--	25.6
	Direct Uses-Total Nonprocess	--	2	0	*	5	*	0	--	18.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	0	0	*	W	0	--	23.5
	Facility Lighting	--	1	--	--	--	--	--	--	1.6
	Facility Support	--	*	0	*	*	W	0	--	21.3
	Onsite Transportation	--	*	--	*	*	*	--	--	8.8
	Conventional Electricity Generation	--	--	0	0	4	0	0	--	4.6
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	28	*	W	W	2	0	0	25	31.6
2869	**Industrial Organic Chemicals, nec.**									
	RSE Column Factors:	NF	1.1	0.9	1.2	1.0	1.3	0.7	NF	
	TOTAL INPUTS	1,370	64	5	2	837	1	92	369	10.2
	Indirect Uses-Boiler Fuel	--	1	W	1	387	*	W	--	14.0
	Direct Uses-Total Process	--	55	1	W	285	1	0	--	13.1
	Process Heating	--	W	1	W	249	W	0	--	17.0
	Process Cooling and Refrigeration	--	9	0	W	4	W	0	--	19.1
	Machine Drive	--	40	0	*	28	0	0	--	11.5
	Electro-Chemical Processes	--	3	--	--	--	--	--	--	1.7
	Other Process Use	--	W	0	*	4	0	0	--	30.1
	Direct Uses-Total Nonprocess	--	7	W	1	153	*	0	--	15.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	3	W	W	3	W	0	--	13.5
	Facility Lighting	--	3	--	--	--	--	--	--	1.5
	Facility Support	--	1	0	*	W	W	0	--	11.3
	Onsite Transportation	--	*	--	W	0	*	--	--	5.9
	Conventional Electricity Generation	--	--	0	*	147	W	0	--	8.3
	Other Nonprocess Use	--	*	0	W	W	0	0	--	24.2
	End Use Not Reported	383	2	W	W	11	*	W	369	17.5
2873	**Nitrogenous Fertilizers**									
	RSE Column Factors:	NF	1.4	0.4	1.5	1.4	1.7	0.4	NF	
	TOTAL INPUTS	286	13	0	*	267	*	0	5	6.8
	Indirect Uses-Boiler Fuel	--	*	0	*	72	0	0	--	11.5
	Direct Uses-Total Process	--	12	0	*	185	*	0	--	10.0
	Process Heating	--	1	0	*	177	*	0	--	14.6
	Process Cooling and Refrigeration	--	1	0	0	5	0	0	--	14.6
	Machine Drive	--	10	0	*	2	*	0	--	14.2
	Electro-Chemical Processes	--	1	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	0	2	0	0	--	23.8
	Direct Uses-Total Nonprocess	--	1	0	*	2	*	0	--	9.7
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	*	*	*	0	--	13.6
	Facility Lighting	--	*	--	--	--	--	--	--	1.5
	Facility Support	--	*	0	*	*	*	0	--	20.6
	Onsite Transportation	--	0	--	*	0	*	--	--	4.4
	Conventional Electricity Generation	--	--	0	*	2	*	0	--	8.9
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	13	*	0	*	8	*	0	5	18.4

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2874	**Phosphatic Fertilizers**									
	RSE Column Factors:	NF	1.5	0.8	1.0	0.9	1.2	0.7	NF	
	TOTAL INPUTS	18	4	W	1	W	*	W	W	5.7
	Indirect Uses-Boiler Fuel	--	W	W	W	2	0	0	--	6.7
	Direct Uses-Total Process	--	3	W	*	7	W	W	--	5.9
	Process Heating	--	W	W	W	7	W	W	--	6.5
	Process Cooling and Refrigeration	--	W	0	0	*	0	0	--	12.0
	Machine Drive	--	3	0	W	*	0	0	--	8.0
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.4
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	W	0	*	W	W	0	--	5.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	*	W	*	0	--	6.0
	Facility Lighting	--	*	--	--	--	--	--	--	1.4
	Facility Support	--	W	0	*	0	*	0	--	7.1
	Onsite Transportation	--	*	--	W	0	W	--	--	2.9
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.6
	Other Nonprocess Use	--	0	0	W	0	0	0	--	9.8
	End Use Not Reported	W	W	0	W	0	0	0	W	7.1
2895	**Carbon Black**									
	RSE Column Factors:	NF	1.1	1.0	1.2	1.0	1.6	0.5	NF	
	TOTAL INPUTS	30	W	W	W	17	W	0	W	11.7
	Indirect Uses-Boiler Fuel	--	W	0	0	6	0	0	--	20.7
	Direct Uses-Total Process	--	1	W	W	10	0	0	--	13.8
	Process Heating	--	W	W	0	10	0	0	--	15.6
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	27.5
	Machine Drive	--	1	0	W	*	0	0	--	14.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	*	W	*	W	W	0	--	14.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	*	W	0	0	--	13.9
	Facility Lighting	--	*	--	--	--	--	--	--	1.6
	Facility Support	--	*	W	0	W	0	0	--	19.3
	Onsite Transportation	--	0	--	*	*	W	--	--	6.3
	Conventional Electricity Generation	--	--	0	0	W	0	0	--	4.1
	Other Nonprocess Use	--	0	0	*	0	0	0	--	21.2
	End Use Not Reported	W	0	0	0	W	0	0	W	24.8
29	**PETROLEUM and COAL PRODUCTS**									
	RSE Column Factors:	NF	0.7	0.9	1.6	0.7	1.0	1.5	NF	
	TOTAL INPUTS	3,263	121	72	21	W	47	W	W	6.6
	Indirect Uses-Boiler Fuel	--	W	37	2	255	10	W	--	8.4
	Direct Uses-Total Process	--	104	29	16	469	35	6	--	7.2
	Process Heating	--	3	29	14	451	32	6	--	8.7
	Process Cooling and Refrigeration	--	6	*	*	W	W	0	--	21.7
	Machine Drive	--	96	*	W	12	1	0	--	15.3
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.5
	Other Process Use	--	*	0	W	W	W	0	--	15.2
	Direct Uses-Total Nonprocess	--	9	*	2	81	1	0	--	11.7
	Facility Heating, Ventilation, and Air Conditioning[f]	--	4	W	*	5	W	0	--	14.3
	Facility Lighting	--	4	--	--	--	--	--	--	1.3
	Facility Support	--	1	W	*	1	W	0	--	15.7
	Onsite Transportation	--	*	--	2	0	W	--	--	5.2
	Conventional Electricity Generation	--	--	0	*	74	W	0	--	6.7
	Other Nonprocess Use	--	*	0	*	*	W	0	--	24.0
	End Use Not Reported	2,203	W	6	2	W	2	0	W	17.9

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
2911	**Petroleum Refining**									
	RSE Column Factors:	NF	0.9	0.9	1.3	0.9	1.3	0.8	NF	
	TOTAL INPUTS	3,153	114	68	7	756	W	W	2,161	5.8
	Indirect Uses-Boiler Fuel	--	W	35	1	243	9	W	--	7.1
	Direct Uses-Total Process	--	99	28	5	430	33	0	--	5.3
	Process Heating	--	2	28	5	414	31	0	--	6.8
	Process Cooling and Refrigeration	--	6	0	0	W	W	0	--	11.7
	Machine Drive	--	91	0	W	10	1	0	--	7.3
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.5
	Other Process Use	--	*	0	W	W	W	0	--	12.3
	Direct Uses-Total Nonprocess	--	8	W	*	W	W	0	--	9.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	W	0	0	W	W	0	--	8.0
	Facility Lighting	--	3	--	--	--	--	--	--	1.3
	Facility Support	--	1	W	W	1	W	0	--	12.9
	Onsite Transportation	--	*	--	*	0	W	--	--	4.3
	Conventional Electricity Generation	--	--	0	*	74	W	0	--	6.1
	Other Nonprocess Use	--	W	0	W	*	W	0	--	17.3
	End Use Not Reported	2,178	W	W	*	W	W	0	2,161	15.0
30	**RUBBER and MISC. PLASTICS PRODUCTS**									
	RSE Column Factors:	NF	0.6	1.1	1.6	1.0	1.2	0.7	NF	
	TOTAL INPUTS	286	149	10	3	110	3	5	6	7.2
	Indirect Uses-Boiler Fuel	--	1	8	2	56	*	5	--	11.6
	Direct Uses-Total Process	--	114	1	*	25	1	0	--	10.3
	Process Heating	--	25	1	*	23	1	0	--	12.8
	Process Cooling and Refrigeration	--	10	0	*	*	W	0	--	17.4
	Machine Drive	--	78	1	*	1	*	0	--	18.9
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.7
	Other Process Use	--	1	0	*	1	W	0	--	34.1
	Direct Uses-Total Nonprocess	--	27	*	1	22	2	*	--	9.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	13	*	*	20	*	W	--	14.0
	Facility Lighting	--	11	--	--	--	--	--	--	1.3
	Facility Support	--	3	*	*	1	*	W	--	14.7
	Onsite Transportation	--	*	--	*	*	2	--	--	5.6
	Conventional Electricity Generation	--	--	0	*	1	0	0	--	7.7
	Other Nonprocess Use	--	*	*	*	*	*	0	--	38.9
	End Use Not Reported	20	7	*	*	6	*	0	6	20.9
3011	**Tires and Inner Tubes**									
	RSE Column Factors:	NF	0.8	0.8	1.3	1.2	1.2	1.0	NF	
	TOTAL INPUTS	48	16	5	1	23	*	2	2	10.3
	Indirect Uses-Boiler Fuel	--	W	W	W	20	*	2	--	13.7
	Direct Uses-Total Process	--	12	W	W	1	*	0	--	11.0
	Process Heating	--	*	W	0	*	*	0	--	18.2
	Process Cooling and Refrigeration	--	1	0	0	0	0	0	--	11.5
	Machine Drive	--	11	0	W	*	*	0	--	10.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	*	0	0	--	8.4
	Direct Uses-Total Nonprocess	--	4	W	W	1	W	*	--	9.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	2	W	0	1	W	W	--	8.2
	Facility Lighting	--	2	--	--	--	--	--	--	1.3
	Facility Support	--	*	0	W	*	0	W	--	11.7
	Onsite Transportation	--	*	--	W	0	*	--	--	3.6
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	3.2
	Other Nonprocess Use	--	0	0	W	*	0	0	--	7.1
	End Use Not Reported	4	W	W	W	1	W	0	2	11.4

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
308	**Miscellaneous Plastics Products, nec.**									
	RSE Column Factors:	NF	0.7	1.1	1.4	1.0	1.3	0.7	NF	
	TOTAL INPUTS	192	116	3	2	63	2	2	4	10.9
	Indirect Uses-Boiler Fuel	--	W	2	1	25	*	2	--	18.1
	Direct Uses-Total Process	--	90	1	W	19	1	0	--	12.1
	Process Heating	--	21	*	*	17	*	0	--	10.7
	Process Cooling and Refrigeration	--	9	0	*	*	W	0	--	20.0
	Machine Drive	--	58	1	W	1	*	0	--	20.5
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	1	0	*	1	W	0	--	34.9
	Direct Uses-Total Nonprocess	--	20	W	W	16	W	0	--	11.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	9	W	*	15	W	0	--	15.6
	Facility Lighting	--	8	--	--	--	--	--	--	1.3
	Facility Support	--	2	0	W	*	*	0	--	16.7
	Onsite Transportation	--	*	--	W	*	1	--	--	7.2
	Conventional Electricity Generation	--	--	0	W	1	0	0	--	7.2
	Other Nonprocess Use	--	*	0	W	*	*	0	--	38.5
	End Use Not Reported	14	W	W	*	4	W	0	4	27.9
31	**LEATHER and LEATHER PRODUCTS**									
	RSE Column Factors:	NF	1.0	0.7	1.8	0.9	1.7	0.5	NF	
	TOTAL INPUTS	W	3	2	W	W	W	0	*	15.0
	Indirect Uses-Boiler Fuel	--	*	2	*	2	W	0	--	25.2
	Direct Uses-Total Process	--	2	0	*	1	*	0	--	18.7
	Process Heating	--	*	0	*	1	*	0	--	23.0
	Process Cooling and Refrigeration	--	*	0	0	*	0	0	--	34.1
	Machine Drive	--	2	0	0	*	*	0	--	18.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	*	0	*	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	1	*	*	W	*	0	--	17.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	*	*	W	*	0	--	20.9
	Facility Lighting	--	*	--	--	--	--	--	--	1.6
	Facility Support	--	*	0	*	1	*	0	--	26.4
	Onsite Transportation	--	*	--	*	0	*	--	--	5.2
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.0
	Other Nonprocess Use	--	*	0	0	0	0	0	--	0.0
	End Use Not Reported	1	*	*	W	W	*	0	*	40.0
32	**STONE, CLAY and GLASS PRODUCTS**									
	RSE Column Factors:	NF	0.7	1.0	1.4	0.8	1.6	0.8	NF	
	TOTAL INPUTS	945	123	7	23	431	4	274	83	6.8
	Indirect Uses-Boiler Fuel	--	1	1	1	20	*	*	--	24.3
	Direct Uses-Total Process	--	104	7	8	380	2	263	--	7.7
	Process Heating	--	29	7	5	369	2	263	--	8.5
	Process Cooling and Refrigeration	--	3	0	*	1	W	0	--	21.6
	Machine Drive	--	72	*	4	9	*	*	--	19.1
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.9
	Other Process Use	--	*	0	*	1	W	0	--	19.9
	Direct Uses-Total Nonprocess	--	14	*	11	22	1	*	--	7.9
	Facility Heating, Ventilation, and Air Conditioning[f]	--	6	*	*	18	*	*	--	11.7
	Facility Lighting	--	7	--	--	--	--	--	--	1.3
	Facility Support	--	2	0	*	2	*	0	--	11.3
	Onsite Transportation	--	*	--	10	*	1	--	--	6.3
	Conventional Electricity Generation	--	--	0	*	1	*	0	--	10.6
	Other Nonprocess Use	--	*	0	*	*	*	0	--	33.3
	End Use Not Reported	109	4	*	2	10	*	10	83	23.2

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
3211	**Flat Glass**									
	RSE Column Factors:	NF	0.9	1.1	1.5	0.9	1.5	0.5	NF	
	TOTAL INPUTS	52	5	2	*	45	*	0	*	15.0
	Indirect Uses-Boiler Fuel	--	*	0	*	1	0	0	--	30.8
	Direct Uses-Total Process	--	4	2	*	42	*	0	--	18.6
	Process Heating	--	2	2	*	42	*	0	--	19.4
	Process Cooling and Refrigeration	--	*	0	*	*	0	0	--	26.7
	Machine Drive	--	2	0	*	*	*	0	--	27.0
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	*	0	*	0	--	23.8
	Direct Uses-Total Nonprocess	--	1	0	*	1	*	0	--	12.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	1	*	0	--	20.0
	Facility Lighting	--	*	--	--	--	--	--	--	1.5
	Facility Support	--	*	0	*	*	*	0	--	24.0
	Onsite Transportation	--	*	--	*	0	*	--	--	5.0
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	3.9
	Other Nonprocess Use	--	*	0	0	0	0	0	--	47.7
	End Use Not Reported	*	*	0	0	0	*	0	*	33.7
3221	**Glass Containers**									
	RSE Column Factors:	NF	1.2	0.9	1.7	0.8	1.4	0.5	NF	
	TOTAL INPUTS	83	15	2	*	66	*	0	*	5.8
	Indirect Uses-Boiler Fuel	--	W	0	W	*	0	0	--	12.3
	Direct Uses-Total Process	--	13	2	W	62	*	0	--	6.5
	Process Heating	--	5	2	W	62	W	0	--	6.8
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	8.3
	Machine Drive	--	8	0	*	*	W	0	--	11.1
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.7
	Other Process Use	--	W	0	0	0	0	0	--	19.8
	Direct Uses-Total Nonprocess	--	W	0	W	3	W	0	--	5.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	W	3	W	0	--	8.9
	Facility Lighting	--	1	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	*	1	0	0	--	7.7
	Onsite Transportation	--	W	--	W	0	*	--	--	4.4
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	0	0	*	0	W	0	*	14.4
3229	**Pressed and Blown Glass, nec.**									
	RSE Column Factors:	NF	1.2	1.0	1.5	0.9	1.3	0.5	NF	
	TOTAL INPUTS	63	11	W	*	50	W	0	*	8.5
	Indirect Uses-Boiler Fuel	--	*	W	W	2	*	0	--	14.7
	Direct Uses-Total Process	--	9	W	W	47	*	0	--	10.2
	Process Heating	--	4	W	W	44	W	0	--	11.1
	Process Cooling and Refrigeration	--	1	0	0	0	0	0	--	5.8
	Machine Drive	--	5	0	*	2	W	0	--	10.3
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.7
	Other Process Use	--	0	0	W	0	*	0	--	13.6
	Direct Uses-Total Nonprocess	--	2	0	*	2	W	0	--	6.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	0	0	2	W	0	--	7.8
	Facility Lighting	--	1	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	W	*	0	0	--	11.8
	Onsite Transportation	--	W	--	W	*	*	--	--	4.2
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	3.4
	Other Nonprocess Use	--	W	0	W	0	0	0	--	15.1
	End Use Not Reported	*	0	0	*	0	*	0	*	13.2

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
3241	**Cement, Hydraulic**									
	RSE Column Factors:	NF	0.8	1.0	1.4	1.2	1.3	0.6	NF	
	TOTAL INPUTS	329	37	1	5	25	*	202	59	11.7
	Indirect Uses-Boiler Fuel	--	*	0	*	1	0	0	--	37.2
	Direct Uses-Total Process	--	33	1	2	22	*	196	--	15.1
	Process Heating	--	2	1	2	21	*	196	--	18.7
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	23.1
	Machine Drive	--	31	0	*	*	*	*	--	22.2
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	0	0	0	--	54.0
	Direct Uses-Total Nonprocess	--	2	0	2	1	*	0	--	10.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	0	W	1	*	0	--	16.0
	Facility Lighting	--	1	--	--	--	--	--	--	1.4
	Facility Support	--	*	0	W	*	*	0	--	21.8
	Onsite Transportation	--	*	--	2	0	*	--	--	5.7
	Conventional Electricity Generation	--	--	0	W	*	0	0	--	11.3
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	69	2	0	*	1	*	6	59	28.1
3274	**Lime**									
	RSE Column Factors:	NF	1.1	1.2	0.9	0.9	1.5	0.6	NF	
	TOTAL INPUTS	96	4	1	1	13	*	66	11	18.3
	Indirect Uses-Boiler Fuel	--	0	0	*	0	0	0	--	53.4
	Direct Uses-Total Process	--	3	Q	1	11	*	62	--	20.9
	Process Heating	--	1	Q	*	11	*	62	--	22.4
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	29.2
	Machine Drive	--	2	0	*	*	*	0	--	27.9
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	*	0	1	*	*	0	--	21.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	*	*	*	0	--	31.9
	Facility Lighting	--	*	--	--	--	--	--	--	1.6
	Facility Support	--	*	0	0	*	*	0	--	40.9
	Onsite Transportation	--	0	--	1	0	*	--	--	4.4
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.9
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	17	*	*	*	1	*	4	11	34.9
3296	**Mineral Wool**									
	RSE Column Factors:	NF	1.0	0.8	2.0	0.8	1.3	0.5	NF	
	TOTAL INPUTS	51	12	W	*	37	W	0	2	9.9
	Indirect Uses-Boiler Fuel	--	*	W	*	1	*	0	--	19.1
	Direct Uses-Total Process	--	11	0	W	35	*	0	--	8.7
	Process Heating	--	7	0	W	W	*	0	--	9.2
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	12.5
	Machine Drive	--	4	0	*	0	0	0	--	9.7
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	W	W	0	0	--	23.9
	Direct Uses-Total Nonprocess	--	1	0	W	1	W	0	--	8.7
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	W	1	W	0	--	13.4
	Facility Lighting	--	*	--	--	--	--	--	--	1.5
	Facility Support	--	*	0	*	*	0	0	--	12.3
	Onsite Transportation	--	*	--	W	0	*	--	--	4.8
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	3.4
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	2	0	0	*	0	0	0	2	0.0

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
33	**PRIMARY METAL INDUSTRIES**									
	RSE Column Factors:	NF	0.5	1.4	1.1	0.9	1.5	1.0	NF	
	TOTAL INPUTS	2,568	493	43	12	801	5	52	1,162	6.8
	Indirect Uses-Boiler Fuel	--	1	30	1	95	*	42	--	10.7
	Direct Uses-Total Process	--	449	13	W	628	3	W	--	9.6
	Process Heating	--	121	13	3	604	3	W	--	11.5
	Process Cooling and Refrigeration	--	4	0	0	*	0	0	--	17.7
	Machine Drive	--	135	*	W	3	*	0	--	10.9
	Electro-Chemical Processes	--	187	--	--	--	--	--	--	1.0
	Other Process Use	--	2	0	*	19	*	0	--	19.6
	Direct Uses-Total Nonprocess	--	36	*	7	58	2	W	--	5.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	15	W	1	47	*	*	--	13.4
	Facility Lighting	--	16	--	--	--	--	--	--	1.2
	Facility Support	--	4	*	*	W	*	0	--	14.5
	Onsite Transportation	--	1	--	W	*	2	--	--	5.7
	Conventional Electricity Generation	--	--	0	W	W	*	W	--	3.6
	Other Nonprocess Use	--	*	W	W	1	*	0	--	25.2
	End Use Not Reported	1,190	7	0	W	21	*	W	1,162	19.5
331	**Blast Furnace and Basic Steel Products**									
	RSE Column Factors:	NF	0.7	1.0	1.1	0.7	1.4	1.4	NF	
	TOTAL INPUTS	1,907	182	42	W	518	W	39	1,119	10.7
	Indirect Uses-Boiler Fuel	--	1	29	1	67	W	34	--	13.4
	Direct Uses-Total Process	--	165	12	1	417	*	W	--	13.7
	Process Heating	--	78	12	1	396	W	W	--	15.5
	Process Cooling and Refrigeration	--	2	0	0	*	0	0	--	21.4
	Machine Drive	--	79	*	*	2	*	0	--	16.3
	Electro-Chemical Processes	--	5	--	--	--	--	--	--	1.5
	Other Process Use	--	1	0	*	19	W	0	--	25.1
	Direct Uses-Total Nonprocess	--	15	*	4	29	1	*	--	14.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	6	W	*	23	*	*	--	16.1
	Facility Lighting	--	7	--	--	--	--	--	--	1.3
	Facility Support	--	2	*	*	5	*	0	--	17.2
	Onsite Transportation	--	*	--	3	*	Q	--	--	3.3
	Conventional Electricity Generation	--	--	0	*	*	*	0	--	13.9
	Other Nonprocess Use	--	*	W	0	1	*	0	--	27.2
	End Use Not Reported	1,126	2	0	W	5	*	W	1,119	20.4
3312	**Blast Furnaces and Steel Mills**									
	RSE Column Factors:	NF	0.8	1.1	1.0	0.8	1.1	1.1	NF	
	TOTAL INPUTS	1,824	148	42	W	476	W	35	1,118	8.1
	Indirect Uses-Boiler Fuel	--	1	29	1	60	*	34	--	13.9
	Direct Uses-Total Process	--	136	12	1	388	*	W	--	10.0
	Process Heating	--	62	12	1	368	W	W	--	10.9
	Process Cooling and Refrigeration	--	1	0	0	*	0	0	--	19.8
	Machine Drive	--	68	*	W	2	*	0	--	13.6
	Electro-Chemical Processes	--	4	--	--	--	--	--	--	1.6
	Other Process Use	--	1	0	W	19	W	0	--	24.1
	Direct Uses-Total Nonprocess	--	12	*	3	24	*	0	--	8.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	4	W	*	18	*	0	--	14.1
	Facility Lighting	--	5	--	--	--	--	--	--	1.3
	Facility Support	--	1	0	0	4	*	0	--	14.7
	Onsite Transportation	--	*	--	3	0	*	--	--	3.9
	Conventional Electricity Generation	--	--	0	0	*	*	0	--	10.2
	Other Nonprocess Use	--	*	W	0	1	*	0	--	25.8
	End Use Not Reported	1,122	*	0	W	3	W	W	1,118	23.9

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
3313	**Electrometallurgical Products**									
	RSE Column Factors:	NF	2.7	0.4	1.5	1.2	1.4	0.4	NF	
	TOTAL INPUTS	23	16	0	*	3	*	Q	Q	19.4
	Indirect Uses-Boiler Fuel	--	0	0	0	*	0	0	--	0.0
	Direct Uses-Total Process	--	15	0	*	2	*	Q	--	17.7
	Process Heating	--	14	0	0	2	*	Q	--	18.5
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	0.0
	Machine Drive	--	1	0	*	0	*	0	--	15.0
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.2
	Other Process Use	--	*	0	0	*	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	1	0	*	*	*	0	--	20.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	*	*	0	--	18.3
	Facility Lighting	--	*	--	--	--	--	--	--	1.8
	Facility Support	--	*	0	0	*	0	0	--	16.8
	Onsite Transportation	--	0	--	*	0	*	--	--	8.4
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.4
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	1	*	0	0	*	0	0	Q	0.0
3321	**Gray and Ductile Iron Foundries**									
	RSE Column Factors:	NF	1.1	0.9	1.4	0.7	1.2	0.9	NF	
	TOTAL INPUTS	92	30	*	1	33	1	*	28	11.3
	Indirect Uses-Boiler Fuel	--	*	0	*	2	W	0	--	31.8
	Direct Uses-Total Process	--	24	*	*	21	*	*	--	16.9
	Process Heating	--	15	*	*	20	W	*	--	18.2
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	16.6
	Machine Drive	--	10	*	*	*	W	0	--	26.9
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	*	*	W	0	--	35.2
	Direct Uses-Total Nonprocess	--	4	*	W	9	*	0	--	10.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	2	*	*	9	*	0	--	19.5
	Facility Lighting	--	2	--	--	--	--	--	--	1.5
	Facility Support	--	*	0	*	*	*	0	--	20.9
	Onsite Transportation	--	*	--	*	0	*	--	--	5.2
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	5.2
	Other Nonprocess Use	--	*	0	0	0	*	0	--	34.2
	End Use Not Reported	30	1	0	W	Q	W	0	28	34.6
3331	**Primary Copper**									
	RSE Column Factors:	NF	1.0	1.0	1.0	1.0	1.0	1.0	NF	
	TOTAL INPUTS	32	5	W	W	22	W	W	W	1.0
	Indirect Uses-Boiler Fuel	--	0	0	0	8	0	W	--	1.0
	Direct Uses-Total Process	--	5	W	W	11	0	W	--	1.0
	Process Heating	--	W	W	W	11	0	W	--	1.0
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	1.0
	Machine Drive	--	3	0	W	0	0	0	--	1.0
	Electro-Chemical Processes	--	1	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	*	0	0	--	1.0
	Direct Uses-Total Nonprocess	--	1	0	W	3	W	W	--	1.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	W	0	0	--	1.0
	Facility Lighting	--	*	--	--	--	--	--	--	1.0
	Facility Support	--	*	0	0	*	0	0	--	1.0
	Onsite Transportation	--	0	--	1	0	W	--	--	1.0
	Conventional Electricity Generation	--	--	0	W	W	0	W	--	1.0
	Other Nonprocess Use	--	0	0	W	0	0	0	--	1.0
	End Use Not Reported	W	*	0	W	0	0	0	W	1.0

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
3334	**Primary Aluminum**									
	RSE Column Factors:	NF	0.9	0.9	1.0	1.5	0.9	0.9	NF	
	TOTAL INPUTS	201	183	W	1	17	W	0	W	1.6
	Indirect Uses-Boiler Fuel	--	W	W	W	W	W	0	--	1.0
	Direct Uses-Total Process	--	178	0	W	14	*	0	--	1.5
	Process Heating	--	W	0	W	14	W	0	--	1.5
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	1.1
	Machine Drive	--	5	0	W	*	W	0	--	1.3
	Electro-Chemical Processes	--	173	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	0	0	0	--	1.1
	Direct Uses-Total Nonprocess	--	W	0	1	1	W	0	--	1.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	2	0	0	*	*	0	--	0.9
	Facility Lighting	--	2	--	--	--	--	--	--	1.0
	Facility Support	--	W	0	0	*	*	0	--	0.9
	Onsite Transportation	--	W	--	1	0	W	--	--	1.2
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.1
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	1	W	0	0	W	*	0	W	0.9
3339	**Primary Nonferrous Metals, nec.**									
	RSE Column Factors:	NF	1.4	0.7	1.1	1.1	1.2	0.7	NF	
	TOTAL INPUTS	38	14	W	W	12	*	8	4	14.6
	Indirect Uses-Boiler Fuel	--	W	W	*	W	*	8	--	23.6
	Direct Uses-Total Process	--	12	0	*	9	*	0	--	11.5
	Process Heating	--	3	0	W	9	*	0	--	13.6
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--	13.2
	Machine Drive	--	2	0	W	*	*	0	--	14.8
	Electro-Chemical Processes	--	7	--	--	--	--	--	--	1.5
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	1	0	W	*	*	0	--	9.1
	Facility Heating, Ventilation, and Air Conditioning[f]	--	*	0	0	*	W	0	--	12.2
	Facility Lighting	--	*	--	--	--	--	--	--	1.4
	Facility Support	--	*	0	*	*	W	0	--	16.8
	Onsite Transportation	--	*	--	W	*	*	--	--	7.0
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.7
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	5	W	0	*	W	*	0	4	20.4
3353	**Aluminum Sheet, Plate, and Foil**									
	RSE Column Factors:	NF	1.2	0.6	1.3	0.8	1.2	1.0	NF	
	TOTAL INPUTS	73	16	0	W	53	*	W	W	5.1
	Indirect Uses-Boiler Fuel	--	W	0	0	W	W	W	--	10.7
	Direct Uses-Total Process	--	15	0	*	47	*	0	--	5.0
	Process Heating	--	2	0	*	47	*	0	--	5.8
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	4.9
	Machine Drive	--	13	0	0	0	0	0	--	3.2
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	*	0	0	--	13.3
	Direct Uses-Total Nonprocess	--	W	0	W	3	W	0	--	4.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	0	W	3	W	0	--	7.1
	Facility Lighting	--	1	--	--	--	--	--	--	1.3
	Facility Support	--	W	0	*	*	*	0	--	8.0
	Onsite Transportation	--	W	--	*	0	W	--	--	3.0
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	W	W	0	W	W	W	0	W	10.7

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
34	**FABRICATED METAL PRODUCTS**									
	RSE Column Factors:	NF	0.9	0.8	1.6	0.9	1.5	0.6	NF	
	TOTAL INPUTS	365	115	3	4	220	5	W	W	12.3
	Indirect Uses-Boiler Fuel	--	1	2	1	39	*	W	--	20.6
	Direct Uses-Total Process	--	80	W	W	119	1	W	--	10.3
	Process Heating	--	15	Q	1	115	1	W	--	12.1
	Process Cooling and Refrigeration	--	3	0	0	*	W	0	--	23.1
	Machine Drive	--	56	W	W	3	*	0	--	16.2
	Electro-Chemical Processes	--	5	--	--	--	--	--	--	1.6
	Other Process Use	--	1	0	*	1	W	0	--	27.4
	Direct Uses-Total Nonprocess	--	27	W	1	49	3	W	--	9.3
	Facility Heating, Ventilation, and Air Conditioning[f]	--	12	W	1	47	*	W	--	12.1
	Facility Lighting	--	13	--	--	--	--	--	--	1.3
	Facility Support	--	2	0	*	2	*	0	--	16.4
	Onsite Transportation	--	*	--	1	*	3	--	--	5.6
	Conventional Electricity Generation	--	--	0	*	*	0	0	--	1.1
	Other Nonprocess Use	--	*	0	*	*	*	0	--	29.4
	End Use Not Reported	34	7	*	W	13	*	0	W	24.1
35	**INDUSTRIAL MACHINERY and EQUIPMENT**									
	RSE Column Factors:	NF	0.6	1.1	1.3	0.7	1.2	1.4	NF	
	TOTAL INPUTS	245	109	W	4	110	3	11	W	8.5
	Indirect Uses-Boiler Fuel	--	1	2	1	21	*	9	--	15.7
	Direct Uses-Total Process	--	62	W	W	39	1	1	--	14.8
	Process Heating	--	11	*	W	36	1	1	--	17.8
	Process Cooling and Refrigeration	--	3	0	*	*	0	*	--	27.8
	Machine Drive	--	48	*	1	2	*	0	--	15.4
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.5
	Other Process Use	--	1	W	1	1	*	0	--	30.6
	Direct Uses-Total Nonprocess	--	40	*	1	42	2	*	--	13.4
	Facility Heating, Ventilation, and Air Conditioning[f]	--	19	*	1	40	1	*	--	16.6
	Facility Lighting	--	16	--	--	--	--	--	--	1.3
	Facility Support	--	4	0	*	2	*	0	--	24.1
	Onsite Transportation	--	*	--	1	*	W	--	--	5.0
	Conventional Electricity Generation	--	--	0	*	*	W	0	--	12.5
	Other Nonprocess Use	--	*	*	*	*	*	0	--	41.2
	End Use Not Reported	20	7	*	W	8	*	0	W	21.9
357	**Computer and Office Equipment**									
	RSE Column Factors:	NF	1.3	0.7	2.0	1.2	1.4	0.3	NF	
	TOTAL INPUTS	20	14	W	*	5	W	0	*	18.5
	Indirect Uses-Boiler Fuel	--	*	W	*	4	*	0	--	26.3
	Direct Uses-Total Process	--	5	0	0	*	0	0	--	20.4
	Process Heating	--	Q	0	0	*	0	0	--	34.1
	Process Cooling and Refrigeration	--	1	0	0	*	0	0	--	22.3
	Machine Drive	--	3	0	0	*	0	0	--	21.6
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	0	*	0	0	--	18.6
	Direct Uses-Total Nonprocess	--	8	0	*	1	W	0	--	14.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	4	0	*	1	*	0	--	17.3
	Facility Lighting	--	2	--	--	--	--	--	--	1.5
	Facility Support	--	1	0	*	*	*	0	--	19.9
	Onsite Transportation	--	*	--	*	0	W	--	--	9.1
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	4.1
	Other Nonprocess Use	--	*	0	*	*	*	0	--	24.9
	End Use Not Reported	1	1	0	0	*	0	0	*	34.6

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
36	**ELECTRONIC and OTHER ELECTRIC EQUIPMENT**									
	RSE Column Factors:	NF	0.7	1.1	1.5	0.7	1.3	0.9	NF	
	TOTAL INPUTS	230	113	3	2	87	2	W	W	10.6
	Indirect Uses-Boiler Fuel	--	1	2	1	29	*	W	--	15.6
	Direct Uses-Total Process	--	64	*	W	35	1	W	--	17.2
	Process Heating	--	19	*	*	33	1	W	--	17.8
	Process Cooling and Refrigeration	--	7	*	*	*	0	0	--	25.8
	Machine Drive	--	33	0	W	1	*	0	--	21.2
	Electro-Chemical Processes	--	5	--	--	--	--	--	--	1.5
	Other Process Use	--	1	0	W	1	*	0	--	31.0
	Direct Uses-Total Nonprocess	--	45	*	*	20	1	0	--	12.6
	Facility Heating, Ventilation, and Air Conditioning[f]	--	25	*	*	18	*	0	--	14.7
	Facility Lighting	--	15	--	--	--	--	--	--	1.3
	Facility Support	--	4	0	*	1	*	0	--	19.1
	Onsite Transportation	--	*	--	W	*	1	--	--	4.9
	Conventional Electricity Generation	--	--	0	W	*	W	0	--	1.5
	Other Nonprocess Use	--	*	0	*	*	W	0	--	27.8
	End Use Not Reported	Q	4	*	W	3	*	0	W	27.7
37	**TRANSPORTATION EQUIPMENT**									
	RSE Column Factors:	NF	0.6	1.2	1.3	0.7	1.4	1.2	NF	
	TOTAL INPUTS	358	132	11	7	154	W	28	W	9.5
	Indirect Uses-Boiler Fuel	--	2	6	3	51	W	27	--	14.5
	Direct Uses-Total Process	--	75	1	W	63	1	*	--	16.0
	Process Heating	--	12	1	W	61	1	*	--	18.3
	Process Cooling and Refrigeration	--	5	0	*	*	0	0	--	28.8
	Machine Drive	--	52	0	1	1	*	0	--	19.4
	Electro-Chemical Processes	--	2	--	--	--	--	--	--	1.5
	Other Process Use	--	4	0	1	1	*	0	--	24.3
	Direct Uses-Total Nonprocess	--	51	5	2	34	2	*	--	14.5
	Facility Heating, Ventilation, and Air Conditioning[f]	--	24	2	*	30	1	*	--	18.8
	Facility Lighting	--	22	--	--	--	--	--	--	1.3
	Facility Support	--	5	W	*	2	*	0	--	19.7
	Onsite Transportation	--	1	--	1	*	2	--	--	5.0
	Conventional Electricity Generation	--	--	W	1	1	*	0	--	16.1
	Other Nonprocess Use	--	1	1	*	*	*	0	--	31.5
	End Use Not Reported	33	4	0	W	6	*	0	W	22.6
3711	**Motor Vehicles and Car Bodies**									
	RSE Column Factors:	NF	1.2	0.6	2.0	0.8	1.8	0.5	NF	
	TOTAL INPUTS	105	30	2	*	52	*	13	8	20.4
	Indirect Uses-Boiler Fuel	--	1	2	*	14	*	13	--	28.3
	Direct Uses-Total Process	--	19	0	*	29	*	0	--	14.7
	Process Heating	--	2	0	0	29	*	0	--	17.6
	Process Cooling and Refrigeration	--	2	0	0	*	0	0	--	14.1
	Machine Drive	--	13	0	*	*	0	0	--	19.4
	Electro-Chemical Processes	--	1	--	--	--	--	--	--	1.7
	Other Process Use	--	1	0	0	0	0	0	--	16.6
	Direct Uses-Total Nonprocess	--	9	0	*	9	*	0	--	14.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	5	0	*	8	*	0	--	16.3
	Facility Lighting	--	3	--	--	--	--	--	--	1.5
	Facility Support	--	1	0	*	1	*	0	--	21.3
	Onsite Transportation	--	*	--	*	0	*	--	--	7.6
	Conventional Electricity Generation	--	--	0	*	0	0	0	--	3.9
	Other Nonprocess Use	--	*	0	*	0	0	0	--	39.7
	End Use Not Reported	9	1	0	*	0	*	0	8	24.5

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
3714	**Motor Vehicle Parts and Accessories**									
	RSE Column Factors:	NF	0.8	0.8	1.4	0.7	1.6	1.1	NF	
	TOTAL INPUTS	117	46	W	1	54	W	10	W	17.2
	Indirect Uses-Boiler Fuel	--	*	W	1	15	W	10	--	21.3
	Direct Uses-Total Process	--	31	0	W	24	*	*	--	16.4
	Process Heating	--	5	0	W	24	*	*	--	18.8
	Process Cooling and Refrigeration	--	1	0	0	*	0	0	--	29.1
	Machine Drive	--	23	0	*	*	*	0	--	16.5
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.6
	Other Process Use	--	1	0	*	*	*	0	--	35.2
	Direct Uses-Total Nonprocess	--	14	0	*	13	1	*	--	20.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	6	0	*	12	*	*	--	20.1
	Facility Lighting	--	6	--	--	--	--	--	--	1.4
	Facility Support	--	1	0	*	1	*	0	--	19.1
	Onsite Transportation	--	*	--	*	*	1	--	--	5.7
	Conventional Electricity Generation	--	--	0	*	0	*	0	--	5.7
	Other Nonprocess Use	--	*	0	*	0	*	0	--	38.9
	End Use Not Reported	7	1	0	W	2	*	0	W	32.1
38	**INSTRUMENTS and RELATED PRODUCTS**									
	RSE Column Factors:	NF	0.6	0.9	1.2	1.0	1.7	0.9	NF	
	TOTAL INPUTS	106	46	4	1	W	W	23	W	14.6
	Indirect Uses-Boiler Fuel	--	W	3	1	13	W	23	--	18.7
	Direct Uses-Total Process	--	18	*	*	5	*	0	--	13.1
	Process Heating	--	3	*	*	5	*	0	--	14.5
	Process Cooling and Refrigeration	--	3	0	0	*	0	0	--	22.1
	Machine Drive	--	11	0	*	*	*	0	--	14.4
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.5
	Other Process Use	--	1	0	*	*	*	0	--	35.8
	Direct Uses-Total Nonprocess	--	23	*	1	9	*	0	--	17.2
	Facility Heating, Ventilation, and Air Conditioning[f]	--	11	*	*	8	*	0	--	19.7
	Facility Lighting	--	8	--	--	--	--	--	--	1.3
	Facility Support	--	3	0	*	1	*	0	--	17.5
	Onsite Transportation	--	*	--	*	*	*	--	--	6.0
	Conventional Electricity Generation	--	--	0	*	*	*	0	--	10.6
	Other Nonprocess Use	--	1	0	*	*	*	0	--	21.8
	End Use Not Reported	9	W	0	*	W	*	*	W	20.9
3841	**Surgical and Medical Instruments**									
	RSE Column Factors:	NF	0.9	0.9	1.8	1.0	1.6	0.5	NF	
	TOTAL INPUTS	7	5	*	*	2	*	0	*	19.4
	Indirect Uses-Boiler Fuel	--	*	*	*	1	*	0	--	23.2
	Direct Uses-Total Process	--	2	0	*	*	*	0	--	18.7
	Process Heating	--	*	0	*	*	*	0	--	22.5
	Process Cooling and Refrigeration	--	*	0	0	*	0	0	--	11.4
	Machine Drive	--	1	0	*	*	*	0	--	21.9
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	*	*	0	0	--	31.9
	Direct Uses-Total Nonprocess	--	3	0	*	1	*	0	--	13.8
	Facility Heating, Ventilation, and Air Conditioning[f]	--	1	0	*	1	*	0	--	14.6
	Facility Lighting	--	1	--	--	--	--	--	--	1.4
	Facility Support	--	*	0	*	*	*	0	--	17.7
	Onsite Transportation	--	*	--	*	0	*	--	--	3.4
	Conventional Electricity Generation	--	--	0	*	0	*	0	--	7.7
	Other Nonprocess Use	--	*	0	0	0	*	0	--	31.6
	End Use Not Reported	1	*	0	*	*	*	0	*	28.2

See footnotes at end of table.

Table A8. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Total	Net Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	Other[e]	RSE Row Factors
39	**MISC. MANUFACTURING INDUSTRIES**									
	RSE Column Factors:	NF	1.1	0.5	1.6	0.9	1.6	0.7	NF	
	TOTAL INPUTS	51	19	1	1	19	W	1	W	19.6
	Indirect Uses-Boiler Fuel	--	*	1	*	5	W	1	--	30.2
	Direct Uses-Total Process	--	10	*	W	7	*	0	--	12.9
	Process Heating	--	2	*	W	6	*	0	--	14.8
	Process Cooling and Refrigeration	--	1	0	0	W	0	0	--	11.3
	Machine Drive	--	7	0	*	*	*	0	--	18.5
	Electro-Chemical Processes	--	*	--	--	--	--	--	--	1.8
	Other Process Use	--	*	0	*	W	*	0	--	33.5
	Direct Uses-Total Nonprocess	--	7	*	Q	5	*	0	--	13.0
	Facility Heating, Ventilation, and Air Conditioning[f]	--	3	*	*	5	*	0	--	14.6
	Facility Lighting	--	3	--	--	--	--	--	--	1.6
	Facility Support	--	1	0	*	*	*	0	--	20.1
	Onsite Transportation	--	*	--	*	*	*	--	--	5.2
	Conventional Electricity Generation	--	--	0	*	*	0	0	--	5.0
	Other Nonprocess Use	--	*	0	0	*	0	0	--	33.1
	End Use Not Reported	Q	1	*	W	1	*	0	W	25.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[c] Includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power.

[f] Excludes steam and hot water.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

-- Estimation of energy input is not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
20-39	**ALL INDUSTRY GROUPS**									
	RSE Column Factors:	NA	0.4	1.4	1.2	0.8	1.1	1.8	NA	
	TOTAL INPUTS	246,925	243,452	3,080	35,920	158,773	56,438	1,397	35,118	3.2
	Indirect Uses-Boiler Fuel	--	15,269	2,108	6,802	33,241	2,541	763	--	4.9
	Direct Uses-Total Process	--	182,404	720	8,916	46,278	13,574	357	--	4.6
	Process Heating	--	52,142	590	2,462	41,266	7,043	336	--	6.2
	Process Cooling and Refrigeration	--	35,158	8	253	1,261	93	3	--	17.2
	Machine Drive	--	174,487	127	5,839	5,434	6,400	24	--	8.8
	Electro-Chemical Processes	--	4,311	--	--	--	--	--	--	1.4
	Other Process Use	--	1,905	28	683	1,366	575	W	--	24.1
	Direct Uses-Total Nonprocess	--	194,284	690	18,441	110,688	40,977	223	--	5.2
	Facility Heating, Ventilation, and Air Conditioning[g]	--	169,157	651	6,630	105,861	9,921	210	--	6.9
	Facility Lighting	--	188,429	--	--	--	--	--	--	1.0
	Facility Support	--	103,610	119	1,090	29,492	1,904	5	--	11.6
	Onsite Transportation	--	5,153	--	10,842	374	31,966	--	--	3.7
	Conventional Electricity Generation	--	--	8	693	368	Q	19	--	6.8
	Other Nonprocess Use	--	1,272	20	442	543	272	0	--	20.0
	End Use Not Reported	89,155	43,005	154	5,947	26,983	9,258	Q	35,118	8.1
20	**FOOD and KINDRED PRODUCTS**									
	RSE Column Factors:	NA	0.6	1.3	1.4	0.8	1.2	1.0	NA	
	TOTAL INPUTS	14,698	14,637	575	3,249	11,042	3,873	173	1,963	5.7
	Indirect Uses-Boiler Fuel	--	2,818	445	1,665	6,921	422	162	--	9.0
	Direct Uses-Total Process	--	12,506	72	307	5,494	954	46	--	11.9
	Process Heating	--	4,255	65	183	5,186	650	27	--	15.3
	Process Cooling and Refrigeration	--	8,467	0	70	254	W	0	--	15.7
	Machine Drive	--	11,753	6	83	376	295	Q	--	15.5
	Electro-Chemical Processes	--	84	--	--	--	--	--	--	1.7
	Other Process Use	--	144	5	13	90	24	W	--	23.1
	Direct Uses-Total Nonprocess	--	12,240	132	1,454	6,460	2,840	22	--	12.1
	Facility Heating, Ventilation, and Air Conditioning[g]	--	10,992	129	589	5,783	663	15	--	17.7
	Facility Lighting	--	12,045	--	--	--	--	--	--	1.2
	Facility Support	--	6,546	15	344	2,217	262	W	--	16.5
	Onsite Transportation	--	916	--	620	15	2,346	--	--	6.3
	Conventional Electricity Generation	--	--	W	86	64	Q	11	--	11.0
	Other Nonprocess Use	--	73	0	109	38	Q	0	--	36.2
	End Use Not Reported	4,665	2,019	26	446	1,158	600	W	1,963	21.7
2011	**Meat Packing Plants**									
	RSE Column Factors:	NA	1.1	0.9	1.4	1.2	1.5	0.4	NA	
	TOTAL INPUTS	759	759	21	144	528	121	W	99	7.5
	Indirect Uses-Boiler Fuel	--	239	19	100	339	42	W	--	16.3
	Direct Uses-Total Process	--	505	W	28	255	45	W	--	16.7
	Process Heating	--	184	W	9	195	41	W	--	17.6
	Process Cooling and Refrigeration	--	486	0	W	64	0	0	--	20.3
	Machine Drive	--	424	0	0	W	W	0	--	12.8
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.7
	Other Process Use	--	5	0	5	W	W	0	--	19.9
	Direct Uses-Total Nonprocess	--	501	4	91	234	117	W	--	14.9
	Facility Heating, Ventilation, and Air Conditioning[g]	--	475	W	5	212	85	W	--	16.7
	Facility Lighting	--	482	--	--	--	--	--	--	1.5
	Facility Support	--	267	W	W	59	22	0	--	19.9
	Onsite Transportation	--	29	--	69	0	51	--	--	7.9
	Conventional Electricity Generation	--	--	0	0	W	0	0	--	4.0
	Other Nonprocess Use	--	0	0	18	0	W	0	--	29.2
	End Use Not Reported	357	252	0	0	161	17	0	99	23.2

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2033	**Canned Fruits and Vegetables**									
	RSE Column Factors:	NA	0.5	0.9	1.9	0.8	1.6	0.9	NA	
	TOTAL INPUTS	531	531	53	97	507	287	W	94	8.0
	Indirect Uses-Boiler Fuel	--	132	38	30	467	W	W	--	15.7
	Direct Uses-Total Process	--	520	10	4	75	13	0	--	14.9
	Process Heating	--	65	10	0	63	9	0	--	33.0
	Process Cooling and Refrigeration	--	255	0	0	8	0	0	--	29.1
	Machine Drive	--	516	0	4	5	4	0	--	15.0
	Electro-Chemical Processes	--	3	--	--	--	--	--	--	1.7
	Other Process Use	--	8	0	0	6	0	0	--	42.8
	Direct Uses-Total Nonprocess	--	510	W	70	371	273	0	--	6.6
	Facility Heating, Ventilation, and Air Conditioning[g]	--	447	W	5	365	61	0	--	14.3
	Facility Lighting	--	507	--	--	--	--	--	--	1.1
	Facility Support	--	236	0	W	51	57	0	--	31.6
	Onsite Transportation	--	42	--	65	0	214	--	--	5.2
	Conventional Electricity Generation	--	--	0	6	5	0	0	--	9.5
	Other Nonprocess Use	--	0	0	0	0	W	0	--	0.0
	End Use Not Reported	125	W	W	9	Q	21	0	94	17.7
2037	**Frozen Fruits and Vegetables**									
	RSE Column Factors:	NA	0.4	1.0	1.0	2.3	1.0	1.0	NA	
	TOTAL INPUTS	232	231	Q	Q	195	Q	0	Q	4.4
	Indirect Uses-Boiler Fuel	--	Q	Q	Q	Q	W	0	--	0.0
	Direct Uses-Total Process	--	231	Q	Q	Q	Q	0	--	2.7
	Process Heating	--	Q	Q	W	Q	Q	0	--	0.0
	Process Cooling and Refrigeration	--	Q	0	W	W	0	0	--	0.0
	Machine Drive	--	229	0	Q	W	Q	0	--	2.7
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	0.8
	Other Process Use	--	Q	0	W	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	228	W	Q	128	Q	0	--	7.5
	Facility Heating, Ventilation, and Air Conditioning[g]	--	213	W	Q	126	Q	0	--	18.5
	Facility Lighting	--	227	--	--	--	--	--	--	1.1
	Facility Support	--	141	W	0	Q	W	0	--	101.4
	Onsite Transportation	--	Q	--	Q	0	Q	--	--	1.0
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	2.7
	Other Nonprocess Use	--	W	0	W	0	0	0	--	0.0
	End Use Not Reported	Q	0	W	Q	W	Q	0	Q	0.0
2046	**Wet Corn Milling**									
	RSE Column Factors:	NA	0.6	1.0	2.0	0.7	1.6	0.7	NA	
	TOTAL INPUTS	58	58	4	20	48	16	20	W	5.7
	Indirect Uses-Boiler Fuel	--	13	4	4	37	W	20	--	12.5
	Direct Uses-Total Process	--	51	0	4	37	3	0	--	7.0
	Process Heating	--	8	0	W	37	3	0	--	12.8
	Process Cooling and Refrigeration	--	10	0	0	0	0	0	--	19.0
	Machine Drive	--	50	0	3	0	0	0	--	7.4
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	50	0	13	16	16	0	--	6.4
	Facility Heating, Ventilation, and Air Conditioning[g]	--	42	0	W	13	7	0	--	10.6
	Facility Lighting	--	50	--	--	--	--	--	--	1.2
	Facility Support	--	11	0	W	W	0	0	--	21.1
	Onsite Transportation	--	W	--	10	0	8	--	--	5.2
	Conventional Electricity Generation	--	--	0	3	0	0	0	--	4.3
	Other Nonprocess Use	--	W	0	0	W	0	0	--	49.4
	End Use Not Reported	24	6	0	0	4	W	0	W	23.9

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2051	**Bread, Cake, and Related Products**									
	RSE Column Factors:	NA	1.1	0.8	2.0	1.1	1.4	0.4	NA	
	TOTAL INPUTS	1,303	1,303	13	250	1,011	179	0	138	10.9
	Indirect Uses-Boiler Fuel	--	322	13	Q	576	49	0	--	23.6
	Direct Uses-Total Process	--	880	W	11	768	63	0	--	16.1
	Process Heating	--	378	W	9	755	63	0	--	17.4
	Process Cooling and Refrigeration	--	716	0	0	19	0	0	--	21.1
	Machine Drive	--	872	0	0	41	0	0	--	20.5
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.9
	Other Process Use	--	19	0	W	10	0	0	--	26.6
	Direct Uses-Total Nonprocess	--	875	0	230	646	129	0	--	16.1
	Facility Heating, Ventilation, and Air Conditioning[g]	--	855	0	Q	556	19	0	--	16.5
	Facility Lighting	--	871	--	--	--	--	--	--	1.6
	Facility Support	--	548	0	14	221	20	0	--	20.5
	Onsite Transportation	--	59	--	7	0	97	--	--	7.7
	Conventional Electricity Generation	--	--	0	15	22	Q	0	--	8.7
	Other Nonprocess Use	--	6	0	14	0	0	0	--	26.1
	End Use Not Reported	597	422	0	0	243	35	0	138	30.5
2061	**Cane Sugar, Except Refining**									
	RSE Column Factors:	NA	0.5	1.2	0.9	0.9	1.8	1.1	NA	
	TOTAL INPUTS	43	43	12	26	25	6	W	39	6.0
	Indirect Uses-Boiler Fuel	--	12	10	4	24	3	W	--	11.1
	Direct Uses-Total Process	--	34	W	6	W	W	0	--	14.7
	Process Heating	--	7	W	W	W	0	0	--	24.8
	Process Cooling and Refrigeration	--	3	0	0	0	0	0	--	29.3
	Machine Drive	--	34	W	4	0	0	0	--	13.0
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.8
	Other Process Use	--	3	0	0	0	W	0	--	21.8
	Direct Uses-Total Nonprocess	--	33	W	20	10	W	0	--	9.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	29	0	0	8	W	0	--	11.1
	Facility Lighting	--	33	--	--	--	--	--	--	1.2
	Facility Support	--	20	0	0	3	0	0	--	13.0
	Onsite Transportation	--	0	--	17	0	W	--	--	3.0
	Conventional Electricity Generation	--	--	W	4	0	0	0	--	9.0
	Other Nonprocess Use	--	3	0	W	0	0	0	--	25.8
	End Use Not Reported	40	W	W	W	W	0	0	39	31.6
2062	**Cane Sugar Refining**									
	RSE Column Factors:	NA	0.4	1.2	1.7	1.4	1.7	0.6	NA	
	TOTAL INPUTS	20	20	8	15	11	11	0	8	5.9
	Indirect Uses-Boiler Fuel	--	9	6	8	11	5	0	--	13.4
	Direct Uses-Total Process	--	20	6	6	11	3	0	--	8.7
	Process Heating	--	8	5	5	11	3	0	--	16.2
	Process Cooling and Refrigeration	--	8	0	0	0	0	0	--	41.4
	Machine Drive	--	20	W	W	0	0	0	--	12.8
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.8
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	20	0	11	W	8	0	--	8.1
	Facility Heating, Ventilation, and Air Conditioning[g]	--	17	0	0	W	0	0	--	19.6
	Facility Lighting	--	20	--	--	--	--	--	--	1.0
	Facility Support	--	12	0	W	0	0	0	--	20.1
	Onsite Transportation	--	W	--	6	0	8	--	--	6.8
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	8.0
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	9	0	0	0	0	W	0	8	22.7

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2063	**Beet Sugar**									
	RSE Column Factors:	NA	0.7	1.0	1.4	0.8	1.2	1.1	NA	
	TOTAL INPUTS	41	41	13	30	36	28	28	W	1.2
	Indirect Uses-Boiler Fuel	--	5	8	W	35	0	26	--	3.2
	Direct Uses-Total Process	--	39	10	W	28	3	16	--	2.4
	Process Heating	--	W	10	W	28	W	15	--	3.6
	Process Cooling and Refrigeration	--	W	0	0	0	0	0	--	10.1
	Machine Drive	--	39	0	0	W	W	W	--	5.4
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	39	0	27	22	25	6	--	2.0
	Facility Heating, Ventilation, and Air Conditioning[g]	--	31	0	0	21	9	W	--	3.0
	Facility Lighting	--	39	--	--	--	--	--	--	1.0
	Facility Support	--	19	0	0	10	7	W	--	4.2
	Onsite Transportation	--	W	--	27	0	18	--	--	1.9
	Conventional Electricity Generation	--	--	0	W	W	0	6	--	4.2
	Other Nonprocess Use	--	0	0	0	0	W	0	--	7.5
	End Use Not Reported	34	W	0	0	0	0	0	W	13.0
2075	**Soybean Oil Mills**									
	RSE Column Factors:	NA	1.2	0.9	1.1	1.0	0.9	0.9	NA	
	TOTAL INPUTS	95	92	13	38	88	13	18	31	1.0
	Indirect Uses-Boiler Fuel	--	37	13	12	73	W	18	--	1.3
	Direct Uses-Total Process	--	86	0	7	54	W	W	--	1.0
	Process Heating	--	16	0	5	50	0	W	--	1.0
	Process Cooling and Refrigeration	--	38	0	0	0	0	0	--	0.8
	Machine Drive	--	80	0	W	0	0	0	--	0.9
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.0
	Other Process Use	--	3	0	0	10	W	0	--	1.0
	Direct Uses-Total Nonprocess	--	80	W	23	31	8	W	--	1.0
	Facility Heating, Ventilation, and Air Conditioning[g]	--	68	W	0	27	W	0	--	1.0
	Facility Lighting	--	80	--	--	--	--	--	--	1.0
	Facility Support	--	41	W	0	5	0	0	--	1.0
	Onsite Transportation	--	W	--	21	0	7	--	--	2.0
	Conventional Electricity Generation	--	--	0	W	W	0	W	--	1.0
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	40	3	0	W	3	W	0	31	1.0
2082	**Malt Beverages**									
	RSE Column Factors:	NA	0.4	1.0	1.4	1.1	1.6	0.9	NA	
	TOTAL INPUTS	140	140	47	35	133	80	33	58	4.4
	Indirect Uses-Boiler Fuel	--	32	47	15	105	9	33	--	11.4
	Direct Uses-Total Process	--	137	W	W	51	35	0	--	7.6
	Process Heating	--	50	W	0	51	35	0	--	15.1
	Process Cooling and Refrigeration	--	137	0	W	0	0	0	--	4.0
	Machine Drive	--	137	0	0	0	0	0	--	2.3
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.8
	Other Process Use	--	W	0	0	0	0	0	--	21.1
	Direct Uses-Total Nonprocess	--	137	7	23	66	61	0	--	6.9
	Facility Heating, Ventilation, and Air Conditioning[g]	--	137	7	W	66	33	0	--	8.2
	Facility Lighting	--	137	--	--	--	--	--	--	1.0
	Facility Support	--	90	0	0	0	0	0	--	14.1
	Onsite Transportation	--	18	--	14	W	33	--	--	5.8
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	2.3
	Other Nonprocess Use	--	W	0	5	0	0	0	--	12.1
	End Use Not Reported	58	W	0	0	0	W	0	58	20.7

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
21	**TOBACCO PRODUCTS**									
	RSE Column Factors:	NA	0.5	1.1	1.6	0.8	1.5	0.9	NA	
	TOTAL INPUTS	121	121	42	42	94	48	31	48	4.7
	Indirect Uses-Boiler Fuel	--	31	35	32	78	W	31	--	7.9
	Direct Uses-Total Process	--	104	7	6	32	W	0	--	8.7
	Process Heating	--	38	7	W	32	W	0	--	10.6
	Process Cooling and Refrigeration	--	48	W	0	7	0	0	--	14.5
	Machine Drive	--	104	0	W	W	0	0	--	10.9
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	6	0	0	W	0	0	--	19.3
	Direct Uses-Total Nonprocess	--	104	7	11	42	41	0	--	7.7
	Facility Heating, Ventilation, and Air Conditioning[g]	--	98	7	0	32	W	0	--	10.2
	Facility Lighting	--	104	--	--	--	--	--	--	1.3
	Facility Support	--	53	7	0	20	0	0	--	10.7
	Onsite Transportation	--	0	--	7	0	38	--	--	2.7
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	4.2
	Other Nonprocess Use	--	0	0	W	0	W	0	--	9.7
	End Use Not Reported	65	W	0	0	0	0	0	48	53.5
22	**TEXTILE MILL PRODUCTS**									
	RSE Column Factors:	NA	0.6	1.0	1.4	1.1	1.3	0.9	NA	
	TOTAL INPUTS	4,427	4,427	441	668	2,517	1,282	85	448	9.8
	Indirect Uses-Boiler Fuel	--	432	354	360	1,427	Q	82	--	17.8
	Direct Uses-Total Process	--	3,886	75	83	1,295	220	0	--	17.3
	Process Heating	--	878	69	44	1,027	177	0	--	23.0
	Process Cooling and Refrigeration	--	428	0	0	W	0	0	--	23.8
	Machine Drive	--	3,820	W	Q	273	Q	0	--	16.4
	Electro-Chemical Processes	--	25	--	--	--	--	--	--	1.9
	Other Process Use	--	47	0	0	Q	Q	0	--	68.2
	Direct Uses-Total Nonprocess	--	3,829	58	319	1,411	1,013	3	--	19.5
	Facility Heating, Ventilation, and Air Conditioning[g]	--	3,420	39	252	1,391	378	W	--	23.5
	Facility Lighting	--	3,664	--	--	--	--	--	--	1.3
	Facility Support	--	1,590	Q	13	233	10	0	--	32.0
	Onsite Transportation	--	130	--	53	W	757	--	--	9.1
	Conventional Electricity Generation	--	--	0	3	3	6	W	--	17.0
	Other Nonprocess Use	--	9	W	10	0	0	0	--	44.1
	End Use Not Reported	1,218	517	27	26	176	Q	W	448	34.1
23	**APPAREL and OTHER TEXTILE PRODUCTS**									
	RSE Column Factors:	NA	0.8	0.7	1.7	0.8	1.6	0.8	NA	
	TOTAL INPUTS	18,019	17,754	20	876	8,885	1,330	5	528	11.7
	Indirect Uses-Boiler Fuel	--	1,329	13	248	1,969	59	5	--	25.0
	Direct Uses-Total Process	--	11,075	W	24	1,316	534	0	--	13.9
	Process Heating	--	1,877	0	13	1,009	465	0	--	22.0
	Process Cooling and Refrigeration	--	1,144	0	0	129	0	0	--	35.5
	Machine Drive	--	10,870	W	W	233	66	0	--	15.7
	Electro-Chemical Processes	--	15	--	--	--	--	--	--	1.9
	Other Process Use	--	30	0	W	47	W	0	--	38.5
	Direct Uses-Total Nonprocess	--	12,014	0	585	5,841	656	0	--	11.4
	Facility Heating, Ventilation, and Air Conditioning[g]	--	10,200	0	547	5,681	220	0	--	12.9
	Facility Lighting	--	11,622	--	--	--	--	--	--	1.3
	Facility Support	--	6,072	0	W	1,259	Q	0	--	15.7
	Onsite Transportation	--	233	--	38	0	478	--	--	6.3
	Conventional Electricity Generation	--	--	0	0	W	0	0	--	1.2
	Other Nonprocess Use	--	21	0	W	21	0	0	--	60.8
	End Use Not Reported	5,760	5,066	0	63	1,872	130	0	528	20.2

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
24	**LUMBER and WOOD PRODUCTS**									
	RSE Column Factors:	NA	0.7	1.3	1.2	1.0	1.1	0.9	NA	
	TOTAL INPUTS	21,481	18,896	83	9,251	7,557	5,075	8	5,788	9.3
	Indirect Uses-Boiler Fuel	--	758	20	428	910	181	8	--	20.9
	Direct Uses-Total Process	--	14,480	Q	4,248	1,777	1,281	0	--	9.6
	Process Heating	--	2,558	Q	522	1,564	342	0	--	19.8
	Process Cooling and Refrigeration	--	791	0	0	W	25	0	--	36.8
	Machine Drive	--	13,875	0	3,487	275	1,090	0	--	12.7
	Electro-Chemical Processes	--	36	--	--	--	--	--	--	1.8
	Other Process Use	--	Q	0	Q	26	25	0	--	32.9
	Direct Uses-Total Nonprocess	--	14,302	63	3,245	5,035	3,088	0	--	10.3
	Facility Heating, Ventilation, and Air Conditioning[g]	--	10,367	63	468	4,736	1,276	0	--	14.8
	Facility Lighting	--	13,857	--	--	--	--	--	--	1.3
	Facility Support	--	7,015	0	106	981	67	0	--	22.4
	Onsite Transportation	--	140	--	2,695	49	1,912	--	--	6.0
	Conventional Electricity Generation	--	--	0	61	W	0	0	--	7.3
	Other Nonprocess Use	--	19	0	23	7	W	0	--	27.6
	End Use Not Reported	9,608	3,371	0	1,801	1,095	1,252	0	5,788	15.3
2421	**Sawmills and Planing Mills, General**									
	RSE Column Factors:	NA	1.1	0.6	1.4	1.6	1.6	0.5	NA	
	TOTAL INPUTS	3,406	3,191	Q	2,044	657	447	0	1,377	6.7
	Indirect Uses-Boiler Fuel	--	261	W	109	233	16	0	--	28.6
	Direct Uses-Total Process	--	2,443	W	882	157	87	0	--	10.8
	Process Heating	--	633	W	79	142	25	0	--	15.8
	Process Cooling and Refrigeration	--	117	0	0	W	W	0	--	29.4
	Machine Drive	--	2,411	0	824	W	51	0	--	11.8
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	0	Q	0	--	32.1
	Direct Uses-Total Nonprocess	--	2,427	Q	984	313	270	0	--	10.3
	Facility Heating, Ventilation, and Air Conditioning[g]	--	1,824	Q	55	313	103	0	--	16.7
	Facility Lighting	--	2,306	--	--	--	--	--	--	1.4
	Facility Support	--	1,030	0	Q	21	Q	0	--	17.6
	Onsite Transportation	--	11	--	967	0	181	--	--	6.9
	Conventional Electricity Generation	--	--	0	Q	0	0	0	--	0.9
	Other Nonprocess Use	--	Q	0	W	0	W	0	--	20.5
	End Use Not Reported	1,823	538	0	261	131	97	0	1,377	18.4
2436	**Softwood Veneer and Plywood**									
	RSE Column Factors:	NA	0.7	1.4	1.3	1.4	1.0	0.6	NA	
	TOTAL INPUTS	182	182	W	158	67	160	0	174	3.7
	Indirect Uses-Boiler Fuel	--	40	W	13	31	18	0	--	16.0
	Direct Uses-Total Process	--	167	0	34	33	31	0	--	6.9
	Process Heating	--	33	0	0	33	4	0	--	10.1
	Process Cooling and Refrigeration	--	14	0	0	0	0	0	--	10.7
	Machine Drive	--	165	0	32	0	23	0	--	7.1
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.6
	Other Process Use	--	W	0	W	0	4	0	--	12.1
	Direct Uses-Total Nonprocess	--	165	0	124	25	129	0	--	4.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	128	0	9	25	16	0	--	13.8
	Facility Lighting	--	162	--	--	--	--	--	--	1.1
	Facility Support	--	82	0	0	0	0	0	--	8.0
	Onsite Transportation	--	W	--	118	0	121	--	--	3.1
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	4.6
	Other Nonprocess Use	--	0	0	6	0	0	0	--	7.1
	End Use Not Reported	178	6	0	7	4	19	0	174	14.0

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2493	**Reconstituted Wood Products**									
	RSE Column Factors:	NA	0.8	0.4	1.9	1.3	1.7	0.7	NA	
	TOTAL INPUTS	246	246	Q	100	132	129	W	107	17.8
	Indirect Uses-Boiler Fuel	--	31	Q	Q	61	Q	W	--	45.7
	Direct Uses-Total Process	--	146	W	21	72	39	0	--	34.9
	Process Heating	--	Q	W	Q	61	26	0	--	32.7
	Process Cooling and Refrigeration	--	18	0	0	0	0	0	--	62.1
	Machine Drive	--	146	0	Q	Q	Q	0	--	56.8
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	0.9
	Other Process Use	--	Q	0	0	Q	W	0	--	0.0
	Direct Uses-Total Nonprocess	--	237	W	77	Q	111	0	--	13.7
	Facility Heating, Ventilation, and Air Conditioning[g]	--	191	W	0	Q	Q	0	--	21.1
	Facility Lighting	--	235	--	--	--	--	--	--	1.2
	Facility Support	--	145	0	W	W	Q	0	--	42.3
	Onsite Transportation	--	W	--	77	0	101	--	--	10.5
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	1.3
	Other Nonprocess Use	--	W	0	0	0	0	0	--	0.0
	End Use Not Reported	118	Q	0	W	Q	Q	0	107	0.0
25	**FURNITURE and FIXTURES**									
	RSE Column Factors:	NA	0.7	0.9	1.3	0.8	1.3	1.2	NA	
	TOTAL INPUTS	7,686	7,535	43	566	5,109	2,669	85	745	10.7
	Indirect Uses-Boiler Fuel	--	467	29	131	660	38	75	--	22.7
	Direct Uses-Total Process	--	5,790	3	Q	1,133	354	7	--	19.1
	Process Heating	--	948	3	17	991	81	7	--	23.9
	Process Cooling and Refrigeration	--	278	0	0	5	0	0	--	45.5
	Machine Drive	--	5,688	W	Q	185	269	Q	--	28.9
	Electro-Chemical Processes	--	36	--	--	--	--	--	--	1.8
	Other Process Use	--	Q	0	0	Q	W	0	--	0.0
	Direct Uses-Total Nonprocess	--	6,165	Q	370	3,672	1,882	Q	--	15.1
	Facility Heating, Ventilation, and Air Conditioning[g]	--	5,472	Q	Q	3,474	405	Q	--	19.1
	Facility Lighting	--	6,020	--	--	--	--	--	--	1.3
	Facility Support	--	3,245	0	0	1,030	7	0	--	22.4
	Onsite Transportation	--	112	--	172	0	1,656	--	--	5.3
	Conventional Electricity Generation	--	--	0	0	0	3	0	--	5.5
	Other Nonprocess Use	--	Q	0	Q	Q	5	0	--	20.1
	End Use Not Reported	2,688	1,371	W	Q	930	600	Q	745	25.5
2511	**Wood Furniture, Except Upholstered**									
	RSE Column Factors:	NA	0.5	1.0	1.1	1.1	1.6	1.0	NA	
	TOTAL INPUTS	1,543	1,543	25	233	776	460	62	382	13.8
	Indirect Uses-Boiler Fuel	--	115	24	31	110	25	56	--	29.5
	Direct Uses-Total Process	--	1,319	W	16	187	26	W	--	29.0
	Process Heating	--	132	W	13	180	Q	W	--	38.5
	Process Cooling and Refrigeration	--	15	0	0	0	0	0	--	56.7
	Machine Drive	--	1,292	W	6	Q	4	W	--	29.8
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	0.9
	Other Process Use	--	Q	0	0	W	0	0	--	39.8
	Direct Uses-Total Nonprocess	--	1,338	W	178	540	355	W	--	24.7
	Facility Heating, Ventilation, and Air Conditioning[g]	--	1,194	W	Q	513	Q	W	--	30.1
	Facility Lighting	--	1,338	--	--	--	--	--	--	1.4
	Facility Support	--	757	0	0	311	W	0	--	33.6
	Onsite Transportation	--	22	--	123	0	305	--	--	7.5
	Conventional Electricity Generation	--	--	0	0	0	W	0	--	7.2
	Other Nonprocess Use	--	0	0	Q	Q	W	0	--	26.4
	End Use Not Reported	699	205	0	Q	163	Q	W	382	60.4

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
26	**PAPER and ALLIED PRODUCTS**									
	RSE Column Factors:	NA	0.7	0.8	1.4	1.1	1.4	0.9	NA	
	TOTAL INPUTS	5,582	5,547	382	878	4,290	2,321	173	807	4.8
	Indirect Uses-Boiler Fuel	--	472	325	276	1,588	103	147	--	6.5
	Direct Uses-Total Process	--	4,993	112	162	1,389	400	W	--	8.9
	Process Heating	--	1,008	95	89	1,166	101	W	--	11.8
	Process Cooling and Refrigeration	--	777	0	0	36	0	0	--	22.6
	Machine Drive	--	4,899	18	61	211	292	W	--	16.1
	Electro-Chemical Processes	--	43	--	--	--	--	--	--	1.5
	Other Process Use	--	49	0	16	36	15	0	--	22.4
	Direct Uses-Total Nonprocess	--	4,925	54	569	3,024	1,660	Q	--	7.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	4,237	52	281	2,962	133	Q	--	12.1
	Facility Lighting	--	4,793	--	--	--	--	--	--	1.2
	Facility Support	--	2,300	W	36	531	50	0	--	15.5
	Onsite Transportation	--	277	--	255	Q	1,542	--	--	3.8
	Conventional Electricity Generation	--	--	4	9	28	3	W	--	10.0
	Other Nonprocess Use	--	43	W	42	14	Q	0	--	32.9
	End Use Not Reported	1,543	357	16	69	376	463	W	807	15.3
2611	**Pulp Mills**									
	RSE Column Factors:	NA	0.6	0.9	1.3	1.0	1.2	1.1	NA	
	TOTAL INPUTS	55	55	26	38	40	36	7	40	3.2
	Indirect Uses-Boiler Fuel	--	14	22	15	34	10	7	--	6.1
	Direct Uses-Total Process	--	52	15	12	22	10	0	--	4.5
	Process Heating	--	12	15	7	22	9	0	--	7.3
	Process Cooling and Refrigeration	--	15	0	0	0	0	0	--	9.2
	Machine Drive	--	52	0	5	W	W	0	--	8.3
	Electro-Chemical Processes	--	3	--	--	--	--	--	--	1.6
	Other Process Use	--	5	0	0	0	W	0	--	17.2
	Direct Uses-Total Nonprocess	--	48	0	22	14	24	0	--	4.3
	Facility Heating, Ventilation, and Air Conditioning[g]	--	41	0	3	14	0	0	--	7.1
	Facility Lighting	--	46	--	--	--	--	--	--	1.1
	Facility Support	--	15	0	0	W	W	0	--	14.3
	Onsite Transportation	--	0	--	21	0	22	--	--	2.0
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.5
	Other Nonprocess Use	--	3	0	0	0	0	0	--	21.6
	End Use Not Reported	40	0	W	W	0	5	0	40	15.0
2621	**Paper Mills**									
	RSE Column Factors:	NA	0.5	1.2	1.0	0.8	1.0	2.0	NA	
	TOTAL INPUTS	310	310	153	166	232	198	80	196	1.7
	Indirect Uses-Boiler Fuel	--	85	136	56	196	13	79	--	3.2
	Direct Uses-Total Process	--	279	50	42	144	34	W	--	3.9
	Process Heating	--	59	46	17	134	23	W	--	5.6
	Process Cooling and Refrigeration	--	55	0	0	W	0	0	--	15.9
	Machine Drive	--	277	4	24	13	13	W	--	7.1
	Electro-Chemical Processes	--	13	--	--	--	--	--	--	1.4
	Other Process Use	--	11	0	5	3	0	0	--	15.6
	Direct Uses-Total Nonprocess	--	268	17	117	91	162	3	--	3.4
	Facility Heating, Ventilation, and Air Conditioning[g]	--	231	17	19	77	14	3	--	5.0
	Facility Lighting	--	262	--	--	--	--	--	--	1.0
	Facility Support	--	115	W	3	8	5	0	--	11.4
	Onsite Transportation	--	14	--	103	0	153	--	--	2.0
	Conventional Electricity Generation	--	--	3	5	11	0	W	--	8.2
	Other Nonprocess Use	--	5	W	6	W	3	0	--	18.9
	End Use Not Reported	212	10	4	10	6	26	0	196	10.5

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2631	**Paperboard Mills**									
	RSE Column Factors:	NA	0.6	1.0	1.2	0.8	1.1	1.6	NA	
	TOTAL INPUTS	219	219	101	102	189	117	57	105	1.1
	Indirect Uses-Boiler Fuel	--	55	88	35	154	7	54	--	2.2
	Direct Uses-Total Process	--	202	36	7	90	15	W	--	3.4
	Process Heating	--	36	32	W	82	10	W	--	5.0
	Process Cooling and Refrigeration	--	35	0	0	W	0	0	--	7.5
	Machine Drive	--	198	3	3	10	3	0	--	5.3
	Electro-Chemical Processes	--	8	--	--	--	--	--	--	1.3
	Other Process Use	--	5	0	W	0	W	0	--	10.0
	Direct Uses-Total Nonprocess	--	191	8	73	62	99	W	--	2.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	153	7	W	51	6	0	--	3.9
	Facility Lighting	--	182	--	--	--	--	--	--	1.0
	Facility Support	--	83	0	W	6	0	0	--	6.4
	Onsite Transportation	--	W	--	69	0	97	--	--	2.1
	Conventional Electricity Generation	--	--	W	W	8	0	W	--	6.1
	Other Nonprocess Use	--	W	0	W	W	0	0	--	13.8
	End Use Not Reported	125	8	9	9	8	12	W	105	6.3
27	**PRINTING and PUBLISHING**									
	RSE Column Factors:	NA	0.7	1.0	1.9	1.1	1.6	0.4	NA	
	TOTAL INPUTS	37,384	37,335	82	1,853	22,680	3,601	0	759	6.8
	Indirect Uses-Boiler Fuel	--	419	10	408	1,769	69	0	--	18.8
	Direct Uses-Total Process	--	22,616	4	22	3,743	658	0	--	12.9
	Process Heating	--	3,350	0	Q	3,173	265	0	--	17.9
	Process Cooling and Refrigeration	--	3,572	0	0	443	0	0	--	22.8
	Machine Drive	--	22,297	0	12	556	301	0	--	12.8
	Electro-Chemical Processes	--	159	--	--	--	--	--	--	1.6
	Other Process Use	--	28	4	W	94	Q	0	--	27.1
	Direct Uses-Total Nonprocess	--	26,375	Q	1,097	14,882	3,033	0	--	6.6
	Facility Heating, Ventilation, and Air Conditioning[g]	--	23,710	Q	906	14,229	1,031	0	--	8.9
	Facility Lighting	--	25,502	--	--	--	--	--	--	1.2
	Facility Support	--	15,026	Q	23	4,796	29	0	--	11.4
	Onsite Transportation	--	550	--	Q	25	1,995	--	--	7.4
	Conventional Electricity Generation	--	--	0	38	4	0	0	--	8.5
	Other Nonprocess Use	--	266	0	18	243	14	0	--	23.7
	End Use Not Reported	12,706	10,257	0	361	5,989	265	0	759	11.8
28	**CHEMICALS and ALLIED PRODUCTS**									
	RSE Column Factors:	NA	0.6	1.1	1.2	0.9	1.7	0.9	NA	
	TOTAL INPUTS	9,565	9,555	340	2,541	6,723	2,768	125	1,955	4.9
	Indirect Uses-Boiler Fuel	--	1,702	280	890	3,465	312	116	--	10.7
	Direct Uses-Total Process	--	8,371	66	584	2,765	771	16	--	11.4
	Process Heating	--	2,380	63	200	2,533	305	16	--	13.8
	Process Cooling and Refrigeration	--	3,136	W	Q	65	Q	W	--	22.5
	Machine Drive	--	7,999	W	231	181	461	3	--	14.8
	Electro-Chemical Processes	--	154	--	--	--	--	--	--	1.5
	Other Process Use	--	107	Q	43	156	17	0	--	26.9
	Direct Uses-Total Nonprocess	--	8,427	31	1,351	4,359	1,797	8	--	9.7
	Facility Heating, Ventilation, and Air Conditioning[g]	--	7,747	23	341	3,898	288	6	--	15.3
	Facility Lighting	--	8,293	--	--	--	--	--	--	1.2
	Facility Support	--	4,269	Q	57	1,436	Q	0	--	12.7
	Onsite Transportation	--	181	--	891	6	1,533	--	--	6.6
	Conventional Electricity Generation	--	--	W	78	44	4	3	--	10.3
	Other Nonprocess Use	--	33	5	79	41	12	0	--	21.4
	End Use Not Reported	3,142	728	10	282	457	563	W	1,955	25.2

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2812	**Alkalies and Chlorine**									
	RSE Column Factors:	NA	0.5	1.5	1.2	0.8	1.4	1.1	NA	
	TOTAL INPUTS	44	44	3	19	33	13	3	30	3.4
	Indirect Uses-Boiler Fuel	--	3	W	8	25	3	3	--	6.3
	Direct Uses-Total Process	--	43	0	5	15	W	0	--	4.3
	Process Heating	--	4	0	W	13	0	0	--	9.1
	Process Cooling and Refrigeration	--	11	0	0	0	0	0	--	8.0
	Machine Drive	--	41	0	5	W	W	0	--	6.1
	Electro-Chemical Processes	--	28	--	--	--	--	--	--	1.1
	Other Process Use	--	W	0	0	3	0	0	--	15.9
	Direct Uses-Total Nonprocess	--	35	W	10	16	9	0	--	3.6
	Facility Heating, Ventilation, and Air Conditioning[g]	--	28	W	0	14	0	0	--	5.0
	Facility Lighting	--	33	--	--	--	--	--	--	1.1
	Facility Support	--	8	0	0	W	0	0	--	12.6
	Onsite Transportation	--	0	--	10	0	9	--	--	1.6
	Conventional Electricity Generation	--	--	0	0	3	0	0	--	4.6
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	31	0	0	W	0	3	0	30	7.7
2813	**Industrial Gases**									
	RSE Column Factors:	NA	0.6	0.6	2.2	1.4	1.4	0.6	NA	
	TOTAL INPUTS	623	617	0	10	152	12	0	30	6.3
	Indirect Uses-Boiler Fuel	--	7	0	W	90	W	0	--	14.2
	Direct Uses-Total Process	--	543	0	0	75	W	0	--	10.1
	Process Heating	--	44	0	0	57	W	0	--	20.6
	Process Cooling and Refrigeration	--	113	0	0	0	0	0	--	16.6
	Machine Drive	--	528	0	0	13	0	0	--	8.6
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	10	0	0	W	0	0	--	38.4
	Direct Uses-Total Nonprocess	--	301	0	8	82	W	0	--	10.2
	Facility Heating, Ventilation, and Air Conditioning[g]	--	278	0	0	77	W	0	--	9.4
	Facility Lighting	--	258	--	--	--	--	--	--	1.4
	Facility Support	--	132	0	0	21	0	0	--	16.6
	Onsite Transportation	--	0	--	8	0	0	--	--	3.2
	Conventional Electricity Generation	--	--	0	0	5	0	0	--	4.4
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	101	72	0	0	0	W	0	30	26.2
2816	**Inorganic Pigments**									
	RSE Column Factors:	NA	0.7	1.0	1.2	0.7	1.2	1.5	NA	
	TOTAL INPUTS	81	81	5	32	66	47	5	23	2.7
	Indirect Uses-Boiler Fuel	--	12	5	7	38	W	4	--	7.0
	Direct Uses-Total Process	--	74	0	13	53	15	W	--	3.8
	Process Heating	--	37	0	9	50	11	W	--	5.1
	Process Cooling and Refrigeration	--	30	0	0	0	0	0	--	4.4
	Machine Drive	--	73	0	4	3	3	0	--	6.3
	Electro-Chemical Processes	--	3	--	--	--	--	--	--	1.5
	Other Process Use	--	3	0	0	0	W	0	--	14.6
	Direct Uses-Total Nonprocess	--	73	0	27	41	35	0	--	2.5
	Facility Heating, Ventilation, and Air Conditioning[g]	--	68	0	3	37	4	0	--	5.4
	Facility Lighting	--	69	--	--	--	--	--	--	1.0
	Facility Support	--	36	0	0	15	W	0	--	7.5
	Onsite Transportation	--	3	--	23	0	33	--	--	2.5
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.5
	Other Nonprocess Use	--	0	0	W	0	0	0	--	12.9
	End Use Not Reported	31	5	0	W	5	8	0	23	9.7

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2819	**Industrial Inorganic Chemicals, nec.**									
	RSE Column Factors:	NA	1	1	1	1	1	1	NA	
	TOTAL INPUTS	568	568	27	285	495	169	13	245	7.2
	Indirect Uses-Boiler Fuel	--	161	16	66	370	18	11	--	15.4
	Direct Uses-Total Process	--	527	12	68	313	53	7	--	12.0
	Process Heating	--	154	12	28	295	24	7	--	14.4
	Process Cooling and Refrigeration	--	174	0	0	0	0	0	--	23.5
	Machine Drive	--	519	0	36	21	31	0	--	18.9
	Electro-Chemical Processes	--	28	--	--	--	--	--	--	1.5
	Other Process Use	--	0	0	7	10	0	0	--	43.5
	Direct Uses-Total Nonprocess	--	510	W	128	254	113	W	--	16.1
	Facility Heating, Ventilation, and Air Conditioning[g]	--	489	W	17	247	26	W	--	18.3
	Facility Lighting	--	483	--	--	--	--	--	--	1.3
	Facility Support	--	213	0	3	26	6	0	--	19.8
	Onsite Transportation	--	12	--	116	0	100	--	--	5.4
	Conventional Electricity Generation	--	--	0	12	5	0	0	--	6.8
	Other Nonprocess Use	--	W	0	4	0	0	0	--	39.4
	End Use Not Reported	278	8	W	95	18	19	0	245	33.1
2821	**Plastics Materials and Resins**									
	RSE Column Factors:	NA	0.7	1.0	1.2	1.1	1.5	0.7	NA	
	TOTAL INPUTS	456	456	49	160	395	224	15	214	5.7
	Indirect Uses-Boiler Fuel	--	83	49	53	282	23	15	--	11.1
	Direct Uses-Total Process	--	428	3	53	197	41	0	--	7.2
	Process Heating	--	227	W	19	166	25	0	--	11.6
	Process Cooling and Refrigeration	--	299	0	0	11	W	0	--	14.6
	Machine Drive	--	427	0	34	17	13	0	--	9.3
	Electro-Chemical Processes	--	19	--	--	--	--	--	--	1.5
	Other Process Use	--	6	W	W	28	W	0	--	15.2
	Direct Uses-Total Nonprocess	--	424	W	86	196	157	0	--	7.2
	Facility Heating, Ventilation, and Air Conditioning[g]	--	371	0	W	174	15	0	--	11.2
	Facility Lighting	--	415	--	--	--	--	--	--	1.1
	Facility Support	--	246	0	5	39	5	0	--	10.9
	Onsite Transportation	--	11	--	65	0	152	--	--	4.8
	Conventional Electricity Generation	--	--	0	17	7	0	0	--	5.2
	Other Nonprocess Use	--	W	W	10	6	0	0	--	15.1
	End Use Not Reported	256	17	0	20	18	42	0	214	24.6
2822	***Synthetic Rubber***									
	RSE Column Factors:	NA	0.4	0.9	1.5	1.1	1.5	1.0	NA	
	TOTAL INPUTS	63	63	6	20	53	23	4	24	6.7
	Indirect Uses-Boiler Fuel	--	9	6	4	35	0	4	--	16.9
	Direct Uses-Total Process	--	58	0	6	18	0	0	--	7.9
	Process Heating	--	21	0	0	16	0	0	--	14.4
	Process Cooling and Refrigeration	--	44	0	0	W	0	0	--	18.7
	Machine Drive	--	58	0	6	W	0	0	--	12.7
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.8
	Other Process Use	--	W	0	0	6	0	0	--	39.7
	Direct Uses-Total Nonprocess	--	58	0	10	30	23	0	--	6.1
	Facility Heating, Ventilation, and Air Conditioning[g]	--	56	0	0	26	W	0	--	9.8
	Facility Lighting	--	58	--	--	--	--	--	--	1.1
	Facility Support	--	39	0	3	8	0	0	--	15.1
	Onsite Transportation	--	4	--	8	0	23	--	--	5.1
	Conventional Electricity Generation	--	--	0	0	W	0	0	--	9.3
	Other Nonprocess Use	--	0	0	W	W	0	0	--	32.4
	End Use Not Reported	31	5	0	W	3	0	0	24	26.3

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2823	**Cellulosic Manmade Fibers**									
	RSE Column Factors:	NA	1.0	1.0	1.0	1.0	1.0	1.0	NA	
	TOTAL INPUTS	11	11	0	6	6	3	4	4	1.0
	Indirect Uses-Boiler Fuel	--	W	0	4	3	0	4	--	1.0
	Direct Uses-Total Process	--	8	0	W	6	W	0	--	1.0
	Process Heating	--	3	0	W	6	W	0	--	1.0
	Process Cooling and Refrigeration	--	8	0	0	0	0	0	--	1.0
	Machine Drive	--	8	0	W	0	0	0	--	1.0
	Electro-Chemical Processes	--	3	--	--	--	--	--	--	1.0
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	8	0	W	3	3	0	--	1.0
	Facility Heating, Ventilation, and Air Conditioning[g]	--	7	0	0	W	0	0	--	1.0
	Facility Lighting	--	8	--	--	--	--	--	--	1.0
	Facility Support	--	6	0	0	3	0	0	--	1.0
	Onsite Transportation	--	W	--	W	0	3	--	--	1.0
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.0
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	6	W	0	0	0	0	0	4	1.0
2824	**Organic Fibers, Noncellulosic**									
	RSE Column Factors:	NA	0.6	0.9	1.6	1.1	1.2	0.9	NA	
	TOTAL INPUTS	73	73	23	33	62	38	13	22	2.1
	Indirect Uses-Boiler Fuel	--	15	21	17	44	6	13	--	4.2
	Direct Uses-Total Process	--	68	8	5	26	7	0	--	3.8
	Process Heating	--	52	8	W	25	7	0	--	4.6
	Process Cooling and Refrigeration	--	54	0	0	W	0	0	--	6.8
	Machine Drive	--	68	0	W	W	0	0	--	5.5
	Electro-Chemical Processes	--	5	--	--	--	--	--	--	1.4
	Other Process Use	--	6	0	0	0	0	0	--	12.3
	Direct Uses-Total Nonprocess	--	68	0	14	16	33	0	--	2.5
	Facility Heating, Ventilation, and Air Conditioning[g]	--	64	0	W	15	6	0	--	4.3
	Facility Lighting	--	67	--	--	--	--	--	--	1.0
	Facility Support	--	41	0	0	W	W	0	--	8.3
	Onsite Transportation	--	4	--	9	W	28	--	--	3.6
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	4.1
	Other Nonprocess Use	--	W	0	W	0	W	0	--	11.9
	End Use Not Reported	28	4	0	4	4	4	0	22	8.6
2861	**Gum and Wood Chemicals**									
	RSE Column Factors:	NA	0.7	1.5	0.9	1.1	1.4	0.7	NA	
	TOTAL INPUTS	60	60	W	38	22	21	0	36	2.7
	Indirect Uses-Boiler Fuel	--	6	0	5	12	7	0	--	5.2
	Direct Uses-Total Process	--	38	W	13	17	9	0	--	4.5
	Process Heating	--	11	W	12	16	6	0	--	4.7
	Process Cooling and Refrigeration	--	7	0	0	W	0	0	--	14.7
	Machine Drive	--	36	0	W	0	3	0	--	5.6
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.5
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	40	0	16	13	11	0	--	3.3
	Facility Heating, Ventilation, and Air Conditioning[g]	--	30	0	0	11	5	0	--	4.0
	Facility Lighting	--	38	--	--	--	--	--	--	1.1
	Facility Support	--	17	0	0	7	0	0	--	6.2
	Onsite Transportation	--	0	--	16	0	7	--	--	1.9
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.3
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	48	18	0	11	W	6	0	36	5.6

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2865	**Cyclic Crudes and Intermediates**									
	RSE Column Factors:	NA	0.7	0.9	1.3	1.2	1.5	0.7	NA	
	TOTAL INPUTS	187	187	39	73	178	78	5	101	5.9
	Indirect Uses-Boiler Fuel	--	57	34	38	139	15	5	--	13.7
	Direct Uses-Total Process	--	177	W	26	91	15	0	--	10.9
	Process Heating	--	71	W	10	87	11	0	--	19.0
	Process Cooling and Refrigeration	--	128	0	0	W	0	0	--	14.8
	Machine Drive	--	169	0	16	6	W	0	--	10.0
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.7
	Other Process Use	--	W	0	W	0	0	0	--	35.0
	Direct Uses-Total Nonprocess	--	178	0	33	79	59	0	--	7.0
	Facility Heating, Ventilation, and Air Conditioning[g]	--	164	0	0	66	W	0	--	9.3
	Facility Lighting	--	167	--	--	--	--	--	--	1.2
	Facility Support	--	83	0	W	14	W	0	--	21.0
	Onsite Transportation	--	W	--	32	W	57	--	--	7.0
	Conventional Electricity Generation	--	--	0	0	3	0	0	--	4.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	107	6	6	3	7	10	0	101	27.6
2869	**Industrial Organic Chemicals, nec.**									
	RSE Column Factors:	NA	0.6	1.0	1.5	1.0	1.6	0.7	NA	
	TOTAL INPUTS	631	631	40	250	530	167	24	216	7.9
	Indirect Uses-Boiler Fuel	--	106	35	90	332	16	23	--	16.7
	Direct Uses-Total Process	--	599	11	69	282	21	0	--	13.8
	Process Heating	--	201	11	29	262	13	0	--	21.8
	Process Cooling and Refrigeration	--	280	0	W	8	W	0	--	18.4
	Machine Drive	--	569	0	38	30	0	0	--	11.6
	Electro-Chemical Processes	--	32	--	--	--	--	--	--	1.9
	Other Process Use	--	5	0	W	20	0	0	--	19.5
	Direct Uses-Total Nonprocess	--	593	Q	134	283	129	0	--	8.5
	Facility Heating, Ventilation, and Air Conditioning[g]	--	563	Q	44	257	4	0	--	15.6
	Facility Lighting	--	581	--	--	--	--	--	--	1.1
	Facility Support	--	258	0	Q	61	4	0	--	20.1
	Onsite Transportation	--	5	--	86	0	124	--	--	5.6
	Conventional Electricity Generation	--	--	0	W	9	W	0	--	8.1
	Other Nonprocess Use	--	6	0	12	8	0	0	--	27.2
	End Use Not Reported	256	18	W	5	33	24	W	216	25.1
2873	**Nitrogenous Fertilizers**									
	RSE Column Factors:	NA	0.6	0.6	1.7	1.2	2.1	0.6	NA	
	TOTAL INPUTS	118	117	0	51	79	28	0	47	2.3
	Indirect Uses-Boiler Fuel	--	13	0	11	62	0	0	--	6.8
	Direct Uses-Total Process	--	110	0	9	47	6	0	--	4.2
	Process Heating	--	10	0	3	44	4	0	--	9.8
	Process Cooling and Refrigeration	--	38	0	0	3	0	0	--	12.0
	Machine Drive	--	109	0	6	W	3	0	--	7.9
	Electro-Chemical Processes	--	4	--	--	--	--	--	--	1.6
	Other Process Use	--	W	0	0	3	0	0	--	30.8
	Direct Uses-Total Nonprocess	--	105	0	30	29	22	0	--	3.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	93	0	W	25	8	0	--	6.8
	Facility Lighting	--	100	--	--	--	--	--	--	1.1
	Facility Support	--	44	0	5	4	W	0	--	11.7
	Onsite Transportation	--	0	--	28	0	15	--	--	2.7
	Conventional Electricity Generation	--	--	0	W	3	W	0	--	8.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	55	5	0	10	3	6	0	47	12.5

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2874	**Phosphatic Fertilizers**									
	RSE Column Factors:	NA	0.6	1.2	0.9	0.8	1.4	1.2	NA	
	TOTAL INPUTS	69	68	5	46	51	13	4	30	2.0
	Indirect Uses-Boiler Fuel	--	13	3	11	34	0	0	--	3.7
	Direct Uses-Total Process	--	60	4	20	39	3	4	--	2.9
	Process Heating	--	14	4	15	36	3	4	--	3.7
	Process Cooling and Refrigeration	--	11	0	0	3	0	0	--	6.1
	Machine Drive	--	58	0	5	W	0	0	--	4.1
	Electro-Chemical Processes	--	5	--	--	--	--	--	--	1.3
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	58	0	33	20	11	0	--	2.1
	Facility Heating, Ventilation, and Air Conditioning[g]	--	50	0	3	20	6	0	--	2.9
	Facility Lighting	--	55	--	--	--	--	--	--	1.0
	Facility Support	--	26	0	W	0	3	0	--	4.9
	Onsite Transportation	--	0	--	31	0	6	--	--	1.4
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.6
	Other Nonprocess Use	--	0	0	W	0	0	0	--	8.5
	End Use Not Reported	33	3	0	5	0	0	0	30	6.4
2895	**Carbon Black**									
	RSE Column Factors:	NA	0.5	1.3	1.3	0.8	2.4	0.6	NA	
	TOTAL INPUTS	23	23	4	12	22	W	0	10	4.5
	Indirect Uses-Boiler Fuel	--	3	0	0	18	0	0	--	10.8
	Direct Uses-Total Process	--	20	W	5	15	0	0	--	6.5
	Process Heating	--	4	W	0	14	0	0	--	12.0
	Process Cooling and Refrigeration	--	4	0	0	0	0	0	--	25.3
	Machine Drive	--	20	0	5	4	0	0	--	7.8
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	20	W	12	18	W	0	--	6.3
	Facility Heating, Ventilation, and Air Conditioning[g]	--	19	0	W	17	0	0	--	7.9
	Facility Lighting	--	19	--	--	--	--	--	--	1.2
	Facility Support	--	12	W	0	8	0	0	--	12.5
	Onsite Transportation	--	0	--	10	W	W	--	--	4.2
	Conventional Electricity Generation	--	--	0	0	W	0	0	--	6.2
	Other Nonprocess Use	--	0	0	W	0	0	0	--	15.9
	End Use Not Reported	12	0	0	0	W	0	0	10	25.7
29	**PETROLEUM and COAL PRODUCTS**									
	RSE Column Factors:	NA	0.7	0.8	1.4	1.0	1.4	1.0	NA	
	TOTAL INPUTS	1,971	1,960	117	783	1,148	675	15	W	8.8
	Indirect Uses-Boiler Fuel	--	384	83	134	487	271	8	--	18.6
	Direct Uses-Total Process	--	1,743	84	479	821	238	7	--	14.3
	Process Heating	--	431	77	374	772	215	7	--	17.8
	Process Cooling and Refrigeration	--	221	W	W	11	4	0	--	20.0
	Machine Drive	--	1,659	Q	167	76	28	0	--	18.1
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	0.9
	Other Process Use	--	34	0	Q	24	3	0	--	26.3
	Direct Uses-Total Nonprocess	--	1,651	Q	285	445	351	0	--	12.0
	Facility Heating, Ventilation, and Air Conditioning[g]	--	1,542	W	18	415	91	0	--	16.2
	Facility Lighting	--	1,523	--	--	--	--	--	--	1.3
	Facility Support	--	720	W	12	85	55	0	--	22.6
	Onsite Transportation	--	13	--	249	0	264	--	--	6.7
	Conventional Electricity Generation	--	--	0	Q	22	3	0	--	4.5
	Other Nonprocess Use	--	9	0	6	W	W	0	--	20.7
	End Use Not Reported	659	119	6	70	116	60	0	W	23.5

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
2911	**Petroleum Refining**									
	RSE Column Factors:	NA	0.6	1.2	1.2	0.7	1.3	1.2	NA	
	TOTAL INPUTS	247	246	72	82	218	99	5	186	2.0
	Indirect Uses-Boiler Fuel	--	47	55	20	184	71	5	--	2.9
	Direct Uses-Total Process	--	227	47	41	204	85	0	--	1.9
	Process Heating	--	38	47	17	200	80	0	--	2.6
	Process Cooling and Refrigeration	--	96	0	0	5	4	0	--	6.4
	Machine Drive	--	223	0	23	27	9	0	--	3.5
	Electro-Chemical Processes	--	8	--	--	--	--	--	--	1.4
	Other Process Use	--	9	0	3	11	3	0	--	9.0
	Direct Uses-Total Nonprocess	--	210	W	44	83	16	0	--	3.6
	Facility Heating, Ventilation, and Air Conditioning[g]	--	186	0	0	60	8	0	--	2.9
	Facility Lighting	--	200	--	--	--	--	--	--	1.0
	Facility Support	--	102	W	4	16	W	0	--	7.8
	Onsite Transportation	--	5	--	42	0	3	--	--	2.8
	Conventional Electricity Generation	--	--	0	4	20	3	0	--	4.9
	Other Nonprocess Use	--	5	0	3	W	W	0	--	16.0
	End Use Not Reported	191	11	4	4	4	11	0	186	8.8
30	**RUBBER and MISC. PLASTICS PRODUCTS**									
	RSE Column Factors:	NA	0.7	0.9	1.5	1.0	1.3	0.8	NA	
	TOTAL INPUTS	11,952	11,942	208	1,036	8,927	4,193	23	1,304	6.7
	Indirect Uses-Boiler Fuel	--	949	119	335	1,993	82	23	--	16.1
	Direct Uses-Total Process	--	9,951	70	159	2,941	840	0	--	12.0
	Process Heating	--	5,440	Q	81	2,674	576	0	--	12.4
	Process Cooling and Refrigeration	--	3,929	0	Q	25	Q	0	--	17.3
	Machine Drive	--	9,367	Q	102	212	234	0	--	12.2
	Electro-Chemical Processes	--	111	--	--	--	--	--	--	1.7
	Other Process Use	--	118	0	10	112	39	0	--	26.4
	Direct Uses-Total Nonprocess	--	10,021	Q	493	6,319	3,448	W	--	6.5
	Facility Heating, Ventilation, and Air Conditioning[g]	--	8,824	Q	247	6,127	492	W	--	11.7
	Facility Lighting	--	9,709	--	--	--	--	--	--	1.2
	Facility Support	--	5,467	W	44	1,131	65	W	--	13.0
	Onsite Transportation	--	440	--	207	13	3,154	--	--	6.4
	Conventional Electricity Generation	--	--	0	24	10	0	0	--	8.9
	Other Nonprocess Use	--	91	W	16	27	23	0	--	24.8
	End Use Not Reported	3,745	1,676	Q	159	1,367	709	0	1,304	17.3
3011	**Tires and Inner Tubes**									
	RSE Column Factors:	NA	0.4	1.1	1.4	0.9	1.4	1.3	NA	
	TOTAL INPUTS	112	112	32	69	112	88	8	67	4.7
	Indirect Uses-Boiler Fuel	--	21	30	42	107	W	8	--	10.1
	Direct Uses-Total Process	--	109	W	11	57	18	0	--	10.4
	Process Heating	--	44	W	0	54	Q	0	--	17.8
	Process Cooling and Refrigeration	--	66	0	0	0	0	0	--	24.5
	Machine Drive	--	109	0	11	5	6	0	--	14.5
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.8
	Other Process Use	--	0	0	0	W	0	0	--	15.1
	Direct Uses-Total Nonprocess	--	109	W	31	76	79	W	--	6.3
	Facility Heating, Ventilation, and Air Conditioning[g]	--	107	W	0	71	4	W	--	7.0
	Facility Lighting	--	109	--	--	--	--	--	--	1.0
	Facility Support	--	63	0	10	28	0	W	--	19.9
	Onsite Transportation	--	13	--	25	0	79	--	--	4.0
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	4.8
	Other Nonprocess Use	--	0	0	3	6	0	0	--	16.3
	End Use Not Reported	70	3	W	W	3	4	0	67	16.4

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
308	**Miscellaneous Plastics Products, nec.**									
	RSE Column Factors:	NA	0.7	0.9	1.5	1.1	1.4	0.7	NA	
	TOTAL INPUTS	9,967	9,957	114	606	7,358	3,682	6	1,037	7.3
	Indirect Uses-Boiler Fuel	--	710	61	140	1,423	37	6	--	18.3
	Direct Uses-Total Process	--	8,121	Q	136	2,416	692	0	--	9.6
	Process Heating	--	4,508	Q	71	2,216	511	0	--	13.0
	Process Cooling and Refrigeration	--	3,284	0	Q	21	Q	0	--	17.2
	Machine Drive	--	7,635	W	91	140	156	0	--	15.2
	Electro-Chemical Processes	--	101	--	--	--	--	--	--	1.7
	Other Process Use	--	112	0	8	110	Q	0	--	25.0
	Direct Uses-Total Nonprocess	--	8,282	Q	270	5,084	3,087	0	--	5.6
	Facility Heating, Ventilation, and Air Conditioning[g]	--	7,346	Q	72	4,967	458	0	--	10.0
	Facility Lighting	--	7,980	--	--	--	--	--	--	1.3
	Facility Support	--	4,587	0	23	936	48	0	--	13.6
	Onsite Transportation	--	271	--	172	13	2,827	--	--	5.8
	Conventional Electricity Generation	--	--	0	21	9	0	0	--	9.3
	Other Nonprocess Use	--	81	0	10	21	Q	0	--	27.8
	End Use Not Reported	3,247	1,528	Q	116	1,256	652	0	1,037	18.2
31	**LEATHER and LEATHER PRODUCTS**									
	RSE Column Factors:	NA	1.0	0.8	1.6	1.1	1.6	0.4	NA	
	TOTAL INPUTS	1,356	1,356	54	108	975	158	0	83	9.8
	Indirect Uses-Boiler Fuel	--	77	33	71	101	20	0	--	28.1
	Direct Uses-Total Process	--	1,015	0	Q	234	20	0	--	16.3
	Process Heating	--	142	0	Q	226	20	0	--	20.9
	Process Cooling and Refrigeration	--	64	0	0	W	0	0	--	30.7
	Machine Drive	--	995	0	0	10	W	0	--	22.6
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	W	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	987	W	48	626	129	0	--	17.9
	Facility Heating, Ventilation, and Air Conditioning[g]	--	837	W	Q	622	Q	0	--	15.2
	Facility Lighting	--	967	--	--	--	--	--	--	1.5
	Facility Support	--	301	0	W	36	W	0	--	25.1
	Onsite Transportation	--	Q	--	8	0	70	--	--	8.5
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.0
	Other Nonprocess Use	--	W	0	0	0	0	0	--	0.0
	End Use Not Reported	429	325	Q	15	Q	27	0	83	29.4
32	**STONE, CLAY and GLASS PRODUCTS**									
	RSE Column Factors:	NA	0.6	1.0	1.3	1.1	1.5	0.8	NA	
	TOTAL INPUTS	11,866	11,815	76	3,829	6,990	2,320	233	2,061	6.8
	Indirect Uses-Boiler Fuel	--	827	17	554	1,643	187	W	--	26.6
	Direct Uses-Total Process	--	8,689	59	1,062	3,049	662	216	--	11.7
	Process Heating	--	2,595	36	342	2,926	463	214	--	12.9
	Process Cooling and Refrigeration	--	684	0	W	Q	W	0	--	24.4
	Machine Drive	--	8,152	W	724	227	199	W	--	19.6
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	0.9
	Other Process Use	--	Q	0	Q	11	6	0	--	18.4
	Direct Uses-Total Nonprocess	--	8,724	W	2,248	4,306	1,646	W	--	8.7
	Facility Heating, Ventilation, and Air Conditioning[g]	--	7,443	W	246	4,194	635	W	--	13.4
	Facility Lighting	--	8,328	--	--	--	--	--	--	1.3
	Facility Support	--	4,421	0	Q	1,068	47	0	--	16.2
	Onsite Transportation	--	211	--	1,975	5	1,258	--	--	7.6
	Conventional Electricity Generation	--	--	0	33	7	W	0	--	8.8
	Other Nonprocess Use	--	Q	0	Q	W	W	0	--	28.9
	End Use Not Reported	5,053	2,450	3	662	1,365	342	11	2,061	22.1

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
3211	**Flat Glass**									
	RSE Column Factors:	NA	0.5	1.9	1.3	0.7	1.5	0.8	NA	
	TOTAL INPUTS	68	68	W	43	62	47	0	31	3.4
	Indirect Uses-Boiler Fuel	--	8	0	W	16	0	0	--	17.3
	Direct Uses-Total Process	--	64	W	27	56	8	0	--	5.6
	Process Heating	--	49	W	14	56	4	0	--	7.0
	Process Cooling and Refrigeration	--	37	0	W	W	0	0	--	17.5
	Machine Drive	--	62	0	8	W	W	0	--	12.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	0	0	4	0	W	0	--	14.8
	Direct Uses-Total Nonprocess	--	66	0	41	45	39	0	--	3.1
	Facility Heating, Ventilation, and Air Conditioning[g]	--	58	0	0	43	W	0	--	7.2
	Facility Lighting	--	62	--	--	--	--	--	--	1.1
	Facility Support	--	33	0	W	12	W	0	--	14.6
	Onsite Transportation	--	21	--	37	0	39	--	--	2.4
	Conventional Electricity Generation	--	--	0	16	0	0	0	--	3.6
	Other Nonprocess Use	--	4	0	0	0	0	0	--	35.7
	End Use Not Reported	35	W	0	0	0	10	0	31	19.7
3221	**Glass Containers**									
	RSE Column Factors:	NA	0.8	1.3	1.8	0.6	1.6	0.6	NA	
	TOTAL INPUTS	78	78	11	30	78	45	0	35	2.2
	Indirect Uses-Boiler Fuel	--	W	0	W	12	0	0	--	11.9
	Direct Uses-Total Process	--	76	11	14	76	13	0	--	2.7
	Process Heating	--	71	11	12	76	12	0	--	2.9
	Process Cooling and Refrigeration	--	12	0	0	0	0	0	--	8.8
	Machine Drive	--	75	0	3	W	W	0	--	8.4
	Electro-Chemical Processes	--	W	--	--	--	--	--	--	1.7
	Other Process Use	--	W	0	0	0	0	0	--	28.8
	Direct Uses-Total Nonprocess	--	77	0	17	71	36	0	--	1.9
	Facility Heating, Ventilation, and Air Conditioning[g]	--	49	0	W	68	W	0	--	5.8
	Facility Lighting	--	76	--	--	--	--	--	--	1.0
	Facility Support	--	33	0	W	23	0	0	--	7.2
	Onsite Transportation	--	W	--	17	0	35	--	--	3.0
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.3
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	38	0	0	W	0	W	0	35	11.5
3229	**Pressed and Blown Glass, nec.**									
	RSE Column Factors:	NA	0.6	1.3	2.5	0.5	2.6	0.4	NA	
	TOTAL INPUTS	163	163	W	37	163	36	0	99	7.4
	Indirect Uses-Boiler Fuel	--	5	W	8	29	W	0	--	34.7
	Direct Uses-Total Process	--	162	W	14	163	11	0	--	7.6
	Process Heating	--	147	W	8	163	7	0	--	11.1
	Process Cooling and Refrigeration	--	32	0	0	0	0	0	--	63.6
	Machine Drive	--	162	0	5	5	3	0	--	13.1
	Electro-Chemical Processes	--	4	--	--	--	--	--	--	1.9
	Other Process Use	--	0	0	W	0	W	0	--	16.2
	Direct Uses-Total Nonprocess	--	163	0	28	150	28	0	--	7.3
	Facility Heating, Ventilation, and Air Conditioning[g]	--	160	0	0	100	W	0	--	11.5
	Facility Lighting	--	154	--	--	--	--	--	--	1.3
	Facility Support	--	84	0	W	Q	0	0	--	31.2
	Onsite Transportation	--	5	--	27	W	28	--	--	8.3
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	5.1
	Other Nonprocess Use	--	W	0	Q	0	0	0	--	37.2
	End Use Not Reported	101	0	0	4	0	W	0	99	17.2

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
3241	**Cement, Hydraulic**									
	RSE Column Factors:	NA	0.6	1.0	1.2	1.2	1.3	0.9	NA	
	TOTAL INPUTS	190	190	11	154	127	67	150	149	6.9
	Indirect Uses-Boiler Fuel	--	7	0	8	12	0	0	--	23.2
	Direct Uses-Total Process	--	179	11	61	115	19	144	--	7.4
	Process Heating	--	59	11	51	113	7	143	--	12.9
	Process Cooling and Refrigeration	--	33	0	0	0	0	0	--	22.9
	Machine Drive	--	174	0	13	9	12	W	--	13.1
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	W	0	0	0	0	0	--	53.0
	Direct Uses-Total Nonprocess	--	163	0	114	71	44	0	--	6.5
	Facility Heating, Ventilation, and Air Conditioning[g]	--	125	0	7	64	18	0	--	12.0
	Facility Lighting	--	157	--	--	--	--	--	--	1.2
	Facility Support	--	66	0	5	13	13	0	--	14.5
	Onsite Transportation	--	W	--	112	0	33	--	--	5.2
	Conventional Electricity Generation	--	--	0	W	W	0	0	--	10.3
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	154	9	0	13	5	13	5	149	16.8
3274	**Lime**									
	RSE Column Factors:	NA	0.5	1.8	1.0	0.9	1.8	0.7	NA	
	TOTAL INPUTS	84	83	3	68	53	22	46	56	6.0
	Indirect Uses-Boiler Fuel	--	0	0	W	0	0	0	--	49.1
	Direct Uses-Total Process	--	76	W	24	45	7	42	--	10.4
	Process Heating	--	30	W	15	42	4	42	--	14.3
	Process Cooling and Refrigeration	--	4	0	0	0	0	0	--	59.6
	Machine Drive	--	68	0	12	3	3	0	--	17.8
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	62	0	47	20	15	0	--	8.3
	Facility Heating, Ventilation, and Air Conditioning[g]	--	51	0	5	20	4	0	--	14.8
	Facility Lighting	--	56	--	--	--	--	--	--	1.3
	Facility Support	--	24	0	0	W	W	0	--	31.4
	Onsite Transportation	--	0	--	47	0	11	--	--	2.6
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	2.1
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	57	5	W	7	5	3	4	56	28.9
3296	**Mineral Wool**									
	RSE Column Factors:	NA	0.8	1.1	1.7	0.7	1.6	0.7	NA	
	TOTAL INPUTS	174	174	W	99	169	112	0	103	2.5
	Indirect Uses-Boiler Fuel	--	22	W	W	66	W	0	--	8.5
	Direct Uses-Total Process	--	174	0	21	163	28	0	--	2.5
	Process Heating	--	97	0	10	163	28	0	--	3.7
	Process Cooling and Refrigeration	--	41	0	0	0	0	0	--	9.3
	Machine Drive	--	171	0	7	0	0	0	--	2.4
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	0	0	W	W	0	0	--	10.4
	Direct Uses-Total Nonprocess	--	165	0	79	124	109	0	--	2.9
	Facility Heating, Ventilation, and Air Conditioning[g]	--	143	0	W	124	11	0	--	4.6
	Facility Lighting	--	165	--	--	--	--	--	--	1.1
	Facility Support	--	69	0	W	29	0	0	--	6.7
	Onsite Transportation	--	7	--	65	0	105	--	--	2.5
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	2.7
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	109	0	0	10	0	0	0	103	7.8

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
33	**PRIMARY METAL INDUSTRIES**									
	RSE Column Factors:	NA	0.7	1.2	1.2	0.9	1.2	1.0	NA	
	TOTAL INPUTS	5,171	5,117	88	1,287	4,652	2,259	78	1,627	5.8
	Indirect Uses-Boiler Fuel	--	496	44	111	1,308	98	24	--	12.0
	Direct Uses-Total Process	--	4,609	39	365	3,481	641	52	--	10.8
	Process Heating	--	3,261	37	188	3,380	499	52	--	14.2
	Process Cooling and Refrigeration	--	960	0	0	22	0	0	--	24.6
	Machine Drive	--	4,209	5	185	221	141	0	--	11.6
	Electro-Chemical Processes	--	230	--	--	--	--	--	--	1.5
	Other Process Use	--	45	0	7	68	15	0	--	23.9
	Direct Uses-Total Nonprocess	--	4,514	25	930	3,244	1,813	3	--	9.0
	Facility Heating, Ventilation, and Air Conditioning[g]	--	3,976	24	87	3,110	360	W	--	14.2
	Facility Lighting	--	4,440	--	--	--	--	--	--	1.2
	Facility Support	--	2,252	Q	43	818	45	0	--	11.5
	Onsite Transportation	--	161	--	819	15	1,542	--	--	6.1
	Conventional Electricity Generation	--	--	0	34	7	5	W	--	5.7
	Other Nonprocess Use	--	15	W	6	12	11	0	--	20.7
	End Use Not Reported	2,467	493	0	124	710	331	3	1,627	17.2
331	**Blast Furnace and Basic Steel Products**									
	RSE Column Factors:	NA	1.0	0.7	1.3	0.8	1.2	1.1	NA	
	TOTAL INPUTS	981	981	43	315	931	495	31	303	6.1
	Indirect Uses-Boiler Fuel	--	242	27	24	422	14	15	--	15.9
	Direct Uses-Total Process	--	858	17	64	658	94	13	--	11.9
	Process Heating	--	526	15	23	638	58	13	--	11.8
	Process Cooling and Refrigeration	--	298	0	0	5	0	0	--	19.0
	Machine Drive	--	838	3	43	23	36	0	--	16.8
	Electro-Chemical Processes	--	43	--	--	--	--	--	--	1.5
	Other Process Use	--	12	0	3	14	5	0	--	17.4
	Direct Uses-Total Nonprocess	--	827	Q	266	643	415	W	--	12.9
	Facility Heating, Ventilation, and Air Conditioning[g]	--	764	Q	22	619	26	W	--	14.0
	Facility Lighting	--	811	--	--	--	--	--	--	1.4
	Facility Support	--	438	W	4	172	12	0	--	18.4
	Onsite Transportation	--	32	--	247	W	388	--	--	5.2
	Conventional Electricity Generation	--	--	0	W	3	W	0	--	9.5
	Other Nonprocess Use	--	12	W	0	9	W	0	--	21.5
	End Use Not Reported	491	Q	0	21	Q	38	3	303	15.1
3312	**Blast Furnaces and Steel Mills**									
	RSE Column Factors:	NA	0.7	1.5	1.0	0.7	1.2	1.3	NA	
	TOTAL INPUTS	284	284	26	152	261	103	23	138	2.4
	Indirect Uses-Boiler Fuel	--	31	18	11	112	8	14	--	6.1
	Direct Uses-Total Process	--	261	17	35	209	31	6	--	4.4
	Process Heating	--	158	15	20	203	17	6	--	4.8
	Process Cooling and Refrigeration	--	45	0	0	5	0	0	--	10.3
	Machine Drive	--	246	3	18	11	14	0	--	6.6
	Electro-Chemical Processes	--	20	--	--	--	--	--	--	1.3
	Other Process Use	--	8	0	W	11	3	0	--	14.6
	Direct Uses-Total Nonprocess	--	243	3	124	170	78	0	--	3.7
	Facility Heating, Ventilation, and Air Conditioning[g]	--	209	W	12	164	22	0	--	5.5
	Facility Lighting	--	232	--	--	--	--	--	--	1.1
	Facility Support	--	97	0	0	41	6	0	--	8.2
	Onsite Transportation	--	9	--	118	0	57	--	--	2.4
	Conventional Electricity Generation	--	--	0	0	3	W	0	--	8.4
	Other Nonprocess Use	--	5	W	0	8	W	0	--	16.2
	End Use Not Reported	170	18	0	11	15	12	3	138	11.3

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
3313	**Electrometallurgical Products**									
	RSE Column Factors:	NA	1.1	0.5	1.9	1.1	1.9	0.5	NA	
	TOTAL INPUTS	36	36	0	18	32	18	Q	14	5.6
	Indirect Uses-Boiler Fuel	--	0	0	0	Q	0	0	--	0.0
	Direct Uses-Total Process	--	31	0	Q	23	Q	Q	--	12.0
	Process Heating	--	23	0	0	22	Q	Q	--	16.6
	Process Cooling and Refrigeration	--	Q	0	0	0	0	0	--	0.0
	Machine Drive	--	27	0	Q	0	W	0	--	13.3
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	W	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	27	0	14	23	16	0	--	14.2
	Facility Heating, Ventilation, and Air Conditioning[g]	--	25	0	0	22	W	0	--	15.6
	Facility Lighting	--	25	--	--	--	--	--	--	1.6
	Facility Support	--	16	0	0	Q	0	0	--	24.7
	Onsite Transportation	--	0	--	14	0	14	--	--	5.5
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.9
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	20	Q	0	0	Q	W	0	14	0.0
3321	**Gray and Ductile Iron Foundries**									
	RSE Column Factors:	NA	0.8	1.4	1.8	0.8	1.5	0.4	NA	
	TOTAL INPUTS	517	517	Q	289	488	286	Q	379	6.5
	Indirect Uses-Boiler Fuel	--	3	0	19	76	Q	0	--	28.3
	Direct Uses-Total Process	--	481	W	94	438	116	Q	--	9.9
	Process Heating	--	424	W	17	434	86	Q	--	11.2
	Process Cooling and Refrigeration	--	44	0	0	0	0	0	--	29.7
	Machine Drive	--	460	W	80	9	27	0	--	17.0
	Electro-Chemical Processes	--	5	--	--	--	--	--	--	1.9
	Other Process Use	--	W	0	W	10	3	0	--	25.2
	Direct Uses-Total Nonprocess	--	481	W	195	427	239	0	--	6.7
	Facility Heating, Ventilation, and Air Conditioning[g]	--	423	W	25	418	50	0	--	12.7
	Facility Lighting	--	477	--	--	--	--	--	--	1.2
	Facility Support	--	263	0	5	108	4	0	--	18.1
	Onsite Transportation	--	14	--	169	0	195	--	--	5.7
	Conventional Electricity Generation	--	--	0	10	0	0	0	--	4.7
	Other Nonprocess Use	--	W	0	0	0	W	0	--	28.0
	End Use Not Reported	383	36	0	28	36	39	0	379	30.9
3331	**Primary Copper**									
	RSE Column Factors:	NA	1.0	1.0	1.0	1.0	1.0	1.0	NA	
	TOTAL INPUTS	20	20	W	8	18	4	W	7	1.0
	Indirect Uses-Boiler Fuel	--	0	0	0	12	0	W	--	1.0
	Direct Uses-Total Process	--	19	W	4	16	0	W	--	1.0
	Process Heating	--	6	W	W	16	0	W	--	1.0
	Process Cooling and Refrigeration	--	5	0	0	0	0	0	--	1.0
	Machine Drive	--	15	0	W	0	0	0	--	1.0
	Electro-Chemical Processes	--	6	--	--	--	--	--	--	1.0
	Other Process Use	--	W	0	0	W	0	0	--	1.0
	Direct Uses-Total Nonprocess	--	18	0	7	13	4	W	--	1.0
	Facility Heating, Ventilation, and Air Conditioning[g]	--	16	0	0	13	0	0	--	1.0
	Facility Lighting	--	15	--	--	--	--	--	--	1.0
	Facility Support	--	11	0	0	6	0	0	--	1.0
	Onsite Transportation	--	0	--	7	0	4	--	--	1.0
	Conventional Electricity Generation	--	--	0	W	W	0	W	--	1.0
	Other Nonprocess Use	--	0	0	W	0	0	0	--	1.0
	End Use Not Reported	9	W	0	W	0	0	0	7	1.0

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
3334	**Primary Aluminum**									
	RSE Column Factors:	NA	1.2	0.9	1.3	0.8	1.5	0.6	NA	
	TOTAL INPUTS	44	44	W	36	42	28	0	31	2.8
	Indirect Uses-Boiler Fuel	--	6	W	4	16	W	0	--	8.9
	Direct Uses-Total Process	--	42	0	6	37	13	0	--	3.2
	Process Heating	--	14	0	4	36	10	0	--	6.3
	Process Cooling and Refrigeration	--	5	0	0	0	0	0	--	8.5
	Machine Drive	--	34	0	W	Q	4	0	--	5.0
	Electro-Chemical Processes	--	30	--	--	--	--	--	--	1.5
	Other Process Use	--	W	0	0	0	0	0	--	8.5
	Direct Uses-Total Nonprocess	--	37	0	31	22	20	0	--	4.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	25	0	0	19	5	0	--	8.7
	Facility Lighting	--	34	--	--	--	--	--	--	1.2
	Facility Support	--	12	0	0	4	W	0	--	12.2
	Onsite Transportation	--	W	--	31	0	17	--	--	3.3
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	0.8
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	34	W	0	0	W	4	0	31	8.7
3339	**Primary Nonferrous Metals, nec.**									
	RSE Column Factors:	NA	0.8	0.8	1.4	1.1	1.5	0.7	NA	
	TOTAL INPUTS	88	88	W	25	72	32	W	36	10.1
	Indirect Uses-Boiler Fuel	--	W	W	4	19	W	W	--	26.0
	Direct Uses-Total Process	--	79	0	12	59	9	0	--	8.5
	Process Heating	--	45	0	4	59	6	0	--	13.9
	Process Cooling and Refrigeration	--	15	0	0	0	0	0	--	21.2
	Machine Drive	--	71	0	8	W	3	0	--	14.2
	Electro-Chemical Processes	--	10	--	--	--	--	--	--	1.6
	Other Process Use	--	0	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	80	0	10	53	24	0	--	7.9
	Facility Heating, Ventilation, and Air Conditioning[g]	--	75	0	0	52	W	0	--	9.8
	Facility Lighting	--	78	--	--	--	--	--	--	1.2
	Facility Support	--	39	0	W	10	W	0	--	19.2
	Onsite Transportation	--	W	--	9	W	21	--	--	8.2
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.2
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	39	6	0	W	4	4	0	36	19.3
3353	**Aluminum Sheet, Plate, and Foil**									
	RSE Column Factors:	NA	0.7	0.9	1.4	0.7	1.3	1.4	NA	
	TOTAL INPUTS	55	55	0	38	53	35	W	33	2.1
	Indirect Uses-Boiler Fuel	--	W	0	0	17	W	W	--	7.7
	Direct Uses-Total Process	--	51	0	5	48	7	0	--	2.4
	Process Heating	--	27	0	5	48	7	0	--	2.9
	Process Cooling and Refrigeration	--	18	0	0	0	0	0	--	4.2
	Machine Drive	--	50	0	0	0	0	0	--	1.4
	Electro-Chemical Processes	--	0	--	--	--	--	--	--	0.9
	Other Process Use	--	W	0	0	W	0	0	--	13.1
	Direct Uses-Total Nonprocess	--	49	0	29	39	32	0	--	1.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	44	0	W	39	4	0	--	3.8
	Facility Lighting	--	46	--	--	--	--	--	--	1.0
	Facility Support	--	23	0	W	11	W	0	--	6.3
	Onsite Transportation	--	5	--	28	0	31	--	--	1.7
	Conventional Electricity Generation	--	--	0	0	0	0	0	--	1.4
	Other Nonprocess Use	--	0	0	0	0	0	0	--	0.0
	End Use Not Reported	37	4	0	5	W	6	0	33	6.9

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
34	**FABRICATED METAL PRODUCTS**									
	RSE Column Factors:	NA	0.6	1.4	1.5	0.7	1.2	0.9	NA	
	TOTAL INPUTS	26,262	26,251	72	2,924	20,023	8,278	64	5,776	8.1
	Indirect Uses-Boiler Fuel	--	1,594	30	190	3,720	97	18	--	15.3
	Direct Uses-Total Process	--	20,926	38	566	6,675	2,338	W	--	13.0
	Process Heating	--	6,880	15	291	6,060	999	W	--	19.8
	Process Cooling and Refrigeration	--	2,561	0	0	35	W	0	--	31.6
	Machine Drive	--	19,367	Q	225	648	1,245	0	--	16.4
	Electro-Chemical Processes	--	1,730	--	--	--	--	--	--	1.6
	Other Process Use	--	147	0	Q	72	Q	0	--	49.4
	Direct Uses-Total Nonprocess	--	22,162	14	1,938	15,090	5,777	Q	--	9.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	19,070	14	617	14,806	890	Q	--	14.7
	Facility Lighting	--	21,428	--	--	--	--	--	--	1.2
	Facility Support	--	11,358	0	35	3,722	151	0	--	14.2
	Onsite Transportation	--	358	--	1,309	Q	4,900	--	--	4.7
	Conventional Electricity Generation	--	--	0	Q	Q	0	0	--	1.6
	Other Nonprocess Use	--	Q	0	W	22	Q	0	--	32.2
	End Use Not Reported	10,675	3,578	W	514	3,446	1,445	0	5,776	21.6
35	**INDUSTRIAL MACHINERY and EQUIPMENT**									
	RSE Column Factors:	NA	0.6	1.0	1.8	0.7	1.3	1.0	NA	
	TOTAL INPUTS	33,837	33,655	97	2,773	24,422	9,191	Q	W	5.6
	Indirect Uses-Boiler Fuel	--	1,021	50	340	1,802	172	17	--	19.8
	Direct Uses-Total Process	--	26,899	Q	507	3,662	2,557	W	--	13.3
	Process Heating	--	5,320	W	35	3,165	1,247	W	--	19.7
	Process Cooling and Refrigeration	--	2,619	0	W	35	0	W	--	28.4
	Machine Drive	--	26,271	W	287	599	1,271	0	--	14.3
	Electro-Chemical Processes	--	257	--	--	--	--	--	--	1.7
	Other Process Use	--	Q	W	Q	57	137	0	--	40.8
	Direct Uses-Total Nonprocess	--	28,007	8	1,635	18,760	6,752	Q	--	7.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	25,238	6	784	18,208	1,646	Q	--	11.1
	Facility Lighting	--	27,235	--	--	--	--	--	--	1.2
	Facility Support	--	14,908	0	141	4,868	556	0	--	15.1
	Onsite Transportation	--	554	--	698	Q	4,882	--	--	4.9
	Conventional Electricity Generation	--	--	0	110	Q	W	0	--	6.2
	Other Nonprocess Use	--	Q	W	50	70	25	0	--	30.1
	End Use Not Reported	13,720	5,316	Q	466	4,379	1,234	0	W	17.2
357	**Computer and Office Equipment**									
	RSE Column Factors:	NA	1.4	0.7	1.7	1.3	1.3	0.3	NA	
	TOTAL INPUTS	1,410	1,381	W	54	1,037	Q	0	12	12.0
	Indirect Uses-Boiler Fuel	--	53	W	8	69	W	0	--	27.4
	Direct Uses-Total Process	--	960	0	0	63	0	0	--	19.5
	Process Heating	--	198	0	0	60	0	0	--	27.7
	Process Cooling and Refrigeration	--	104	0	0	W	0	0	--	26.3
	Machine Drive	--	866	0	0	W	0	0	--	19.8
	Electro-Chemical Processes	--	12	--	--	--	--	--	--	1.9
	Other Process Use	--	Q	0	0	W	0	0	--	40.0
	Direct Uses-Total Nonprocess	--	1,158	0	Q	742	Q	0	--	14.8
	Facility Heating, Ventilation, and Air Conditioning[g]	--	1,114	0	W	730	Q	0	--	14.4
	Facility Lighting	--	1,140	--	--	--	--	--	--	1.5
	Facility Support	--	736	0	11	124	9	0	--	26.4
	Onsite Transportation	--	10	--	W	0	9	--	--	8.5
	Conventional Electricity Generation	--	--	0	Q	0	0	0	--	0.7
	Other Nonprocess Use	--	Q	0	5	W	W	0	--	25.1
	End Use Not Reported	490	Q	0	0	269	W	0	12	36.0

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
36	**ELECTRONIC and OTHER ELECTRIC EQUIPMENT**									
	RSE Column Factors:	NA	0.7	1.1	1.3	0.9	1.5	0.7	NA	
	TOTAL INPUTS	11,254	11,254	65	721	7,362	1,849	12	W	8.3
	Indirect Uses-Boiler Fuel	--	523	57	343	1,264	102	12	--	21.7
	Direct Uses-Total Process	--	7,468	8	37	2,051	335	W	--	16.1
	Process Heating	--	3,700	7	11	1,769	253	W	--	20.4
	Process Cooling and Refrigeration	--	2,003	W	W	18	0	0	--	27.2
	Machine Drive	--	6,656	0	19	330	86	0	--	22.1
	Electro-Chemical Processes	--	736	--	--	--	--	--	--	1.7
	Other Process Use	--	273	0	7	88	26	0	--	37.4
	Direct Uses-Total Nonprocess	--	9,196	14	238	5,454	1,482	0	--	11.1
	Facility Heating, Ventilation, and Air Conditioning[g]	--	8,159	14	66	5,122	419	0	--	16.7
	Facility Lighting	--	8,989	--	--	--	--	--	--	1.3
	Facility Support	--	5,048	0	23	1,736	145	0	--	20.1
	Onsite Transportation	--	370	--	84	Q	1,007	--	--	5.5
	Conventional Electricity Generation	--	--	0	85	19	15	0	--	13.2
	Other Nonprocess Use	--	12	0	22	7	4	0	--	28.5
	End Use Not Reported	3,568	1,849	3	143	1,021	341	0	W	23.5
37	**TRANSPORTATION EQUIPMENT**									
	RSE Column Factors:	NA	0.7	1.0	1.2	0.8	1.3	1.2	NA	
	TOTAL INPUTS	7,240	7,240	46	811	4,300	2,643	31	1,790	9.1
	Indirect Uses-Boiler Fuel	--	274	44	117	656	Q	30	--	23.6
	Direct Uses-Total Process	--	5,784	3	81	1,672	437	W	--	18.6
	Process Heating	--	1,968	3	8	1,515	139	W	--	19.7
	Process Cooling and Refrigeration	--	807	0	W	10	0	0	--	29.0
	Machine Drive	--	5,566	0	59	241	273	0	--	24.2
	Electro-Chemical Processes	--	217	--	--	--	--	--	--	1.7
	Other Process Use	--	171	0	Q	21	45	0	--	29.1
	Direct Uses-Total Nonprocess	--	6,351	6	426	3,608	2,022	W	--	13.6
	Facility Heating, Ventilation, and Air Conditioning[g]	--	5,436	6	101	3,585	479	W	--	18.0
	Facility Lighting	--	6,008	--	--	--	--	--	--	1.3
	Facility Support	--	3,628	W	41	917	51	0	--	22.2
	Onsite Transportation	--	153	--	302	Q	1,634	--	--	5.3
	Conventional Electricity Generation	--	--	W	44	4	3	0	--	12.5
	Other Nonprocess Use	--	24	W	4	4	8	0	--	31.3
	End Use Not Reported	2,847	872	0	296	316	416	0	1,790	34.7
3711	**Motor Vehicles and Car Bodies**									
	RSE Column Factors:	NA	0.3	1.1	1.1	1.9	1.1	1.1	NA	
	TOTAL INPUTS	322	322	W	Q	261	Q	Q	Q	8.3
	Indirect Uses-Boiler Fuel	--	Q	W	W	Q	Q	Q	--	0.0
	Direct Uses-Total Process	--	321	0	Q	Q	Q	0	--	3.0
	Process Heating	--	Q	0	0	Q	Q	0	--	0.0
	Process Cooling and Refrigeration	--	Q	0	0	W	0	0	--	0.0
	Machine Drive	--	321	0	Q	W	0	0	--	3.0
	Electro-Chemical Processes	--	Q	--	--	--	--	--	--	0.8
	Other Process Use	--	Q	0	0	0	0	0	--	0.0
	Direct Uses-Total Nonprocess	--	321	0	Q	252	Q	0	--	8.4
	Facility Heating, Ventilation, and Air Conditioning[g]	--	244	0	W	252	Q	0	--	58.0
	Facility Lighting	--	321	--	--	--	--	--	--	1.0
	Facility Support	--	Q	0	W	Q	Q	0	--	0.0
	Onsite Transportation	--	Q	--	Q	0	Q	--	--	0.9
	Conventional Electricity Generation	--	--	0	W	0	0	0	--	3.0
	Other Nonprocess Use	--	W	0	W	0	0	0	--	0.0
	End Use Not Reported	Q	W	0	W	0	Q	0	Q	0.0

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
3714	**Motor Vehicle Parts and Accessories**									
	RSE Column Factors:	NA	0.7	0.8	1.4	0.9	1.4	1.1	NA	
	TOTAL INPUTS	2,062	2,062	5	141	1,454	803	21	533	11.4
	Indirect Uses-Boiler Fuel	--	138	5	22	277	21	19	--	25.9
	Direct Uses-Total Process	--	1,719	0	15	709	149	W	--	19.3
	Process Heating	--	805	0	3	698	63	W	--	22.8
	Process Cooling and Refrigeration	--	432	0	0	8	0	0	--	36.3
	Machine Drive	--	1,547	0	11	24	85	0	--	25.8
	Electro-Chemical Processes	--	36	--	--	--	--	--	--	1.7
	Other Process Use	--	88	0	W	7	Q	0	--	36.9
	Direct Uses-Total Nonprocess	--	2,006	0	99	1,217	560	W	--	12.5
	Facility Heating, Ventilation, and Air Conditioning[g]	--	1,917	0	20	1,214	47	W	--	17.2
	Facility Lighting	--	1,851	--	--	--	--	--	--	1.3
	Facility Support	--	1,194	0	10	302	16	0	--	22.0
	Onsite Transportation	--	72	--	58	W	531	--	--	6.5
	Conventional Electricity Generation	--	--	0	16	0	W	0	--	9.4
	Other Nonprocess Use	--	W	0	W	0	7	0	--	34.7
	End Use Not Reported	679	Q	0	22	Q	Q	0	533	20.6
38	**INSTRUMENTS and RELATED PRODUCTS**									
	RSE Column Factors:	NA	0.7	1.1	1.6	1.0	1.6	0.6	NA	
	TOTAL INPUTS	7,059	7,059	Q	866	4,591	825	Q	208	6.9
	Indirect Uses-Boiler Fuel	--	307	Q	85	675	14	W	--	25.7
	Direct Uses-Total Process	--	5,461	W	21	797	85	0	--	19.5
	Process Heating	--	2,641	W	8	541	63	0	--	24.4
	Process Cooling and Refrigeration	--	1,686	0	0	44	0	0	--	29.2
	Machine Drive	--	4,986	0	Q	62	20	0	--	24.2
	Electro-Chemical Processes	--	170	--	--	--	--	--	--	1.7
	Other Process Use	--	104	0	Q	Q	3	0	--	28.2
	Direct Uses-Total Nonprocess	--	6,375	6	623	3,893	715	0	--	14.3
	Facility Heating, Ventilation, and Air Conditioning[g]	--	5,850	6	541	3,824	310	0	--	17.4
	Facility Lighting	--	6,294	--	--	--	--	--	--	1.3
	Facility Support	--	4,153	0	39	1,028	Q	0	--	17.5
	Onsite Transportation	--	102	--	37	W	306	--	--	7.4
	Conventional Electricity Generation	--	--	0	25	4	5	0	--	8.9
	Other Nonprocess Use	--	Q	0	14	21	4	0	--	26.2
	End Use Not Reported	1,100	633	0	Q	457	61	W	208	29.4
3841	**Surgical and Medical Instruments**									
	RSE Column Factors:	NA	0.8	0.9	1.8	1.2	1.4	0.5	NA	
	TOTAL INPUTS	878	878	3	24	577	198	0	45	12.0
	Indirect Uses-Boiler Fuel	--	11	3	7	42	3	0	--	26.0
	Direct Uses-Total Process	--	611	0	4	147	14	0	--	21.1
	Process Heating	--	294	0	W	111	10	0	--	30.5
	Process Cooling and Refrigeration	--	190	0	0	Q	0	0	--	35.2
	Machine Drive	--	593	0	W	Q	3	0	--	22.6
	Electro-Chemical Processes	--	59	--	--	--	--	--	--	1.9
	Other Process Use	--	6	0	W	W	0	0	--	29.7
	Direct Uses-Total Nonprocess	--	810	0	16	502	180	0	--	13.2
	Facility Heating, Ventilation, and Air Conditioning[g]	--	803	0	9	500	Q	0	--	11.1
	Facility Lighting	--	807	--	--	--	--	--	--	1.3
	Facility Support	--	553	0	W	162	W	0	--	25.9
	Onsite Transportation	--	Q	--	W	0	Q	--	--	3.6
	Conventional Electricity Generation	--	--	0	6	0	W	0	--	8.2
	Other Nonprocess Use	--	9	0	0	0	W	0	--	40.4
	End Use Not Reported	123	68	0	W	50	4	0	45	29.5

See footnotes at end of table.

Table A8. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Fuel Type, Industry Group, Selected Industries, and End Use, 1994: Part 3 (Continued)

SIC Code[a]	End-Use Categories	Any Energy Source[b]	Net Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[d]	Natural Gas[e]	LPG	Coal (excluding Coal Coke and Breeze)	Other[f]	RSE Row Factors
39	**MISC. MANUFACTURING INDUSTRIES**									
	RSE Column Factors:	NA	0.8	0.7	1.9	0.9	1.6	0.6	NA	
	TOTAL INPUTS	9,994	9,994	161	856	6,488	1,079	3	1,015	12.0
	Indirect Uses-Boiler Fuel	--	388	38	84	805	6	3	--	29.6
	Direct Uses-Total Process	--	6,037	W	38	1,950	247	0	--	16.0
	Process Heating	--	2,473	W	Q	1,556	183	0	--	19.1
	Process Cooling and Refrigeration	--	982	0	0	W	0	0	--	24.7
	Machine Drive	--	5,956	0	8	516	86	0	--	19.0
	Electro-Chemical Processes	--	188	--	--	--	--	--	--	1.9
	Other Process Use	--	3	0	W	Q	W	0	--	28.2
	Direct Uses-Total Nonprocess	--	7,914	Q	578	4,217	833	0	--	10.7
	Facility Heating, Ventilation, and Air Conditioning[g]	--	6,542	Q	298	3,663	145	0	--	15.5
	Facility Lighting	--	7,609	--	--	--	--	--	--	1.3
	Facility Support	--	5,238	0	5	1,581	5	0	--	13.0
	Onsite Transportation	--	215	--	294	Q	692	--	--	7.8
	Conventional Electricity Generation	--	--	0	3	W	0	0	--	4.0
	Other Nonprocess Use	--	Q	0	0	W	0	0	--	0.0
	End Use Not Reported	3,497	1,994	W	Q	1,532	215	0	1,015	23.3

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).
[d] Includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[e] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[f] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power.
[g] Excludes steam and hot water.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
-- Estimation of energy input is not applicable.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • Allocations to specific end uses are made on the basis of reasonable approximations by respondents.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A8. Number of Establishments by Conditioned Floorspace and Energy Sources Used for Facility HVAC, by Industry Group and Selected Industries, 1994: Part 4

SIC Code[a]	Industry Group and Industry	Establishments (counts)									RSE Row Factors
					Energy Sources Used for Facility HVAC						
		Total	No Conditioned[b] Floorspace	With Conditioned[b] Floorspace	Net Demand for Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal[f]	
	RSE Column Factors:	0.1	1.5	0.3	0.4	2.7	2.7	0.9	2.2	3.4	
20	Food and Kindred Products	14,698	1,977	12,721	11,032	130	589	5,857	667	15	10.3
2011	*Meat Packing Plants*	759	Q	681	475	W	5	212	89	W	14.0
2033	*Canned Fruits and Vegetables*	531	42	489	450	W	5	365	61	0	11.0
2037	*Frozen Fruits and Vegetables*	232	Q	228	213	W	Q	126	Q	0	14.8
2046	*Wet Corn Milling*	58	4	54	42	0	W	13	7	0	9.4
2051	*Bread, Cake, and Related Products*	1,303	251	1,052	855	0	Q	620	19	0	21.3
2061	*Cane Sugar, Except Refining*	43	13	30	34	0	0	8	W	0	9.2
2062	*Cane Sugar Refining*	20	W	W	17	0	0	W	0	0	17.5
2063	*Beet Sugar*	41	5	36	32	0	0	21	9	W	3.0
2075	*Soybean Oil Mills*	95	14	81	73	W	0	27	W	0	1.4
2082	*Malt Beverages*	140	0	140	137	7	W	66	33	0	5.8
21	Tobacco Products	121	0	121	101	7	0	32	W	0	6.9
22	Textile Mill Products	4,427	970	3,456	3,420	39	252	1,391	378	W	16.1
23	Apparel and Other Textile Products	18,019	3,999	14,020	10,200	0	547	5,681	220	0	11.2
24	Lumber and Wood Products	21,481	6,965	14,516	10,553	63	468	4,736	1,276	W	9.7
2421	*Sawmills and Planing Mills, General*	3,406	1,345	2,061	1,831	Q	55	313	103	0	15.9
2436	*Softwood Veneer and Plywood*	182	16	166	134	0	9	25	16	0	8.6
2493	*Reconstituted Wood Products*	246	8	238	192	W	0	Q	Q	0	16.1
25	Furniture and Fixtures	7,686	1,115	6,571	5,472	Q	Q	3,474	405	Q	13.1
2511	*Wood Furniture, Except Upholstered*	1,543	297	1,246	1,194	W	Q	513	Q	W	19.1
26	Paper and Allied Products	5,582	697	4,885	4,264	52	302	2,985	133	Q	9.2
2611	*Pulp Mills*	55	9	46	45	0	3	14	0	0	6.4
2621	*Paper Mills*	310	32	278	249	17	19	77	14	3	3.5
2631	*Paperboard Mills*	219	17	202	159	7	W	51	6	0	3.0
27	Printing and Publishing	37,384	6,137	31,246	23,710	Q	915	14,397	1,036	26	8.7
28	Chemicals and Allied Products	9,565	1,147	8,418	7,790	25	342	3,899	290	6	9.4
2812	*Alkalies and Chlorine*	44	8	36	28	W	0	14	0	0	4.4
2813	*Industrial Gases*	623	302	321	278	0	0	77	W	0	9.8
2816	*Inorganic Pigments*	81	W	W	68	0	3	37	4	0	5.1
2819	*Industrial Inorganic Chemicals, nec.*	568	143	425	506	W	17	247	26	W	13.3
2821	*Plastics Materials and Resins*	456	28	428	371	0	W	174	17	0	8.4
2822	*Synthetic Rubber*	63	5	58	56	W	0	26	W	0	10.2
2823	*Cellulosic Manmade Fibers*	11	3	8	8	0	0	W	0	0	2.2
2824	*Organic Fibers, Noncellulosic*	73	5	68	65	0	W	15	6	0	4.4
2861	*Gum and Wood Chemicals*	60	26	34	30	0	0	11	5	0	4.7
2865	*Cyclic Crudes and Intermediates*	187	20	167	164	0	0	66	W	0	10.9
2869	*Industrial Organic Chemicals, nec.*	631	50	581	574	Q	44	257	4	0	13.3
2873	*Nitrogenous Fertilizers*	118	8	110	93	0	W	27	8	0	6.9
2874	*Phosphatic Fertilizers*	69	8	61	54	0	4	20	6	0	2.8
2895	*Carbon Black*	23	0	23	22	0	W	17	0	0	5.5
29	Petroleum and Coal Products	1,971	304	1,667	1,553	W	18	415	91	W	12.1
2911	*Petroleum Refining*	247	31	216	192	0	0	60	8	0	3.2
30	Rubber and Misc. Plastics Products	11,952	931	11,020	8,834	Q	388	6,127	493	10	9.4
3011	*Tires and Inner Tubes*	112	5	107	107	W	0	71	4	W	5.7
308	*Miscellaneous Plastics Products, nec.*	9,967	798	9,169	7,356	Q	213	4,967	458	7	10.0
31	Leather and Leather Products	1,356	366	990	837	W	Q	622	W	0	22.5
32	Stone, Clay and Glass Products	11,891	1,860	10,031	7,464	Q	246	4,194	657	Q	11.4
3211	*Flat Glass*	68	4	64	58	0	0	43	W	0	7.4
3221	*Glass Containers*	78	22	56	49	0	W	68	W	0	5.4
3229	*Pressed and Blown Glass, nec.*	163	W	W	160	0	0	100	W	0	12.0
3241	*Cement, Hydraulic*	190	12	178	127	0	7	64	18	0	8.4
3274	*Lime*	84	20	64	51	0	5	20	4	0	10.6
3296	*Mineral Wool*	174	8	166	143	0	W	124	11	0	4.8
33	Primary Metal Industries	5,171	605	4,566	4,033	24	126	3,110	360	W	9.5
331	*Blast Furnace and Basic Steel Products*	981	161	820	767	Q	24	619	26	W	12.5
3312	*Blast Furnaces and Steel Mills*	284	43	241	212	W	12	164	22	0	4.7
3313	*Electrometallurgical Products*	36	Q	31	25	0	W	22	W	0	22.1
3321	*Gray and Ductile Iron Foundries*	517	36	481	423	W	25	418	50	0	12.0
3331	*Primary Copper*	20	4	16	16	0	0	13	0	0	2.2
3334	*Primary Aluminum*	44	6	38	25	0	0	19	5	0	8.9
3339	*Primary Nonferrous Metals, nec.*	88	11	77	75	0	0	52	W	0	11.0
3353	*Aluminum Sheet, Plate, and Foil*	55	W	W	44	0	W	39	4	0	3.9
34	Fabricated Metal Products	26,262	3,669	22,593	19,070	14	619	14,806	891	Q	10.1
35	Industrial Machinery and Equipment	33,837	4,435	29,401	25,238	Q	936	18,382	1,647	Q	7.8
357	*Computer and Office Equipment*	1,410	144	1,266	1,114	0	W	730	Q	0	19.0
36	Electronic and Other Electric Equipment	11,254	1,512	9,742	8,159	14	69	5,303	421	24	12.4

See footnotes at end of table.

Table A8. Number of Establishments by Conditioned Floorspace and Energy Sources Used for Facility HVAC, by Industry Group and Selected Industries, 1994: Part 4 (Continued)

SIC Code[a]	Industry Group and Industry	Establishments (counts)									RSE Row Factors
					Energy Sources Used for Facility HVAC						
		Total	No Conditioned[b] Floorspace	With Conditioned[b] Floorspace	Net Demand for Electricity[c]	Residual Fuel Oil	Distillate Fuel Oil[d]	Natural Gas[e]	LPG	Coal[f]	
	RSE Column Factors:	0.1	1.5	0.3	0.4	2.7	2.7	0.9	2.2	3.4	
37	Transportation Equipment	7,240	681	6,559	5,438	6	103	3,740	597	W	11.8
3711	*Motor Vehicles and Car Bodies*	322	Q	261	244	0	W	252	Q	0	53.0
3714	*Motor Vehicle Parts and Accessories*	2,062	Q	1,894	1,917	0	21	1,359	65	W	12.3
38	Instruments and Related Products	7,059	416	6,644	5,850	Q	544	4,038	310	4	13.1
3841	*Surgical and Medical Instruments*	878	Q	819	803	0	9	502	Q	0	13.2
39	Misc. Manufacturing Industries	9,994	1,496	8,498	6,542	143	315	3,899	149	Q	14.1
	Total	246,950	39,285	207,665	169,557	739	7,019	107,087	10,081	625	4.0

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Conditioned" floorspace is that enclosed square footage that had controlled heating or cooling through the use of equipment designed to modify the internal building temperature. This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

[c] "Net Demand for Electricity" is the sum of purchases, transfers in, and total onsite electricity generation, minus sales and transfers offsite. It is the total amount of electricity used by establishments. "Net Demand for Electricity" is not directly comparable with "Net Electricity" which specifically excludes electricity generated onsite by combustible energy sources.

[d] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[e] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[f] "Coal" excludes coal coke and breeze.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Establishment totals may not equal sum of components because of unknown and/or unreported amounts of conditioned floorspace. • HVAC = heating, ventilation, and air conditioning, excluding steam and hot water.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A9. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Census Region, and End Use, 1994: Part 1

(Estimates in Btu or Physical Units)

End-Use Categories	Total (trillion Btu)	Net Electricity[a] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
Total United States									
RSE Column Factors:	NF	0.5	1.3	1.4	0.8	1.2	1.2	NF	
TOTAL INPUTS	16,515	778,335	70,111	26,107	5,962	25,949	54,143	5,828	2.7
Indirect Uses-Boiler Fuel	--	8,250	49,731	7,296	2,326	3,829	39,496	--	4.0
Direct Uses-Total Process	--	608,190	16,825	8,795	2,788	14,051	13,697	--	3.8
Process Heating	--	83,151	16,326	4,919	2,623	12,515	13,545	--	4.1
Process Cooling and Refrigeration	--	40,583	19	44	20	413	3	--	17.5
Machine Drive	--	400,545	406	3,161	93	869	149	--	7.7
Electro-Chemical Processes	--	79,549	--	--	--	--	--	--	1.1
Other Process Use	--	4,363	74	671	52	254	Q	--	16.1
Direct Uses-Total Nonprocess	--	134,020	2,197	8,394	705	6,860	378	--	5.2
Facility Heating, Ventilation, and Air Conditioning *	--	63,662	777	1,274	341	1,373	118	--	6.5
Facility Lighting	--	54,332	--	--	--	--	--	--	1.1
Facility Support	--	13,545	455	203	29	156	1	--	12.1
Onsite Transportation	--	1,192	--	5,997	1	5,168	--	--	3.9
Conventional Electricity Generation	--	--	797	604	325	119	259	--	8.3
Other Nonprocess Use	--	1,290	167	316	9	44	0	--	17.0
End Use Not Reported	6,106	27,874	1,359	1,622	143	1,209	571	5,828	8.8
Northeast Census Region									
RSE Column Factors:	NF	0.5	1.0	1.1	0.8	1.4	1.4	NF	
TOTAL INPUTS	1,625	94,006	24,368	7,116	502	4,663	5,775	446	4.5
Indirect Uses-Boiler Fuel	--	645	18,914	2,527	169	507	4,215	--	8.9
Direct Uses-Total Process	--	69,150	4,003	2,179	243	2,805	1,395	--	6.4
Process Heating	--	12,630	3,742	1,628	233	2,599	1,395	--	7.8
Process Cooling and Refrigeration	--	4,728	18	6	1	*	0	--	24.5
Machine Drive	--	44,354	234	492	6	108	0	--	14.5
Electro-Chemical Processes	--	6,972	--	--	--	--	--	--	1.3
Other Process Use	--	466	Q	53	3	Q	0	--	19.1
Direct Uses-Total Nonprocess	--	20,221	1,170	1,912	71	1,128	15	--	9.1
Facility Heating, Ventilation, and Air Conditioning *	--	8,989	404	921	55	387	Q	--	8.1
Facility Lighting	--	8,584	--	--	--	--	--	--	1.3
Facility Support	--	2,204	W	64	4	37	0	--	16.6
Onsite Transportation	--	191	--	683	*	691	--	--	5.9
Conventional Electricity Generation	--	--	W	224	11	W	14	--	13.4
Other Nonprocess Use	--	253	120	20	*	W	0	--	30.3
End Use Not Reported	487	3,989	281	498	18	223	150	446	15.7
Midwest Census Region									
RSE Column Factors:	NF	0.5	1.3	1.6	0.7	1.2	1.1	NF	
TOTAL INPUTS	4,303	237,676	11,969	4,034	1,587	5,103	18,418	1,332	5.2
Indirect Uses-Boiler Fuel	--	2,341	8,417	708	502	441	14,605	--	7.8
Direct Uses-Total Process	--	186,527	3,453	1,222	829	1,949	3,486	--	6.7
Process Heating	--	28,846	W	514	789	1,674	W	--	8.2
Process Cooling and Refrigeration	--	10,716	*	Q	1	0	3	--	19.5
Machine Drive	--	129,850	W	419	15	211	W	--	13.4
Electro-Chemical Processes	--	15,140	--	--	--	--	--	--	1.1
Other Process Use	--	1,975	*	280	23	65	0	--	18.7
Direct Uses-Total Nonprocess	--	41,123	W	1,791	205	2,351	W	--	8.3
Facility Heating, Ventilation, and Air Conditioning *	--	18,206	W	95	182	420	W	--	12.5
Facility Lighting	--	17,856	--	--	--	--	--	--	1.2
Facility Support	--	4,134	6	15	12	48	1	--	16.6
Onsite Transportation	--	447	--	1,615	*	1,866	--	--	6.5
Conventional Electricity Generation	--	--	0	11	8	W	W	--	6.6
Other Nonprocess Use	--	481	25	55	3	W	0	--	25.5
End Use Not Reported	1,420	7,685	W	312	52	362	W	1,332	16.7

See footnotes at end of table.

Table A9. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Census Region, and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

End-Use Categories	Total (trillion Btu)	Net Electricity[a] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
South Census Region									
RSE Column Factors:	NF	0.5	1.3	1.5	0.8	1.2	1.2	NF	
TOTAL INPUTS	8,357	332,754	28,003	9,464	3,176	7,032	23,986	3,164	3.8
Indirect Uses-Boiler Fuel	--	3,622	19,280	3,243	1,377	905	18,405	--	5.7
Direct Uses-Total Process	--	264,050	7,386	3,232	1,405	3,455	5,189	--	5.5
Process Heating	--	31,124	7,165	1,764	1,305	3,027	W	--	6.4
Process Cooling and Refrigeration	--	19,875	1	11	16	W	0	--	17.4
Machine Drive	--	178,797	155	1,381	62	W	W	--	13.6
Electro-Chemical Processes	--	33,222	--	--	--	--	--	--	1.2
Other Process Use	--	1,032	65	Q	21	89	Q	--	20.6
Direct Uses-Total Nonprocess	--	52,608	958	2,491	343	2,232	221	--	6.6
Facility Heating, Ventilation, and Air Conditioning *	--	27,313	W	145	70	452	69	--	9.9
Facility Lighting	--	19,443	--	--	--	--	--	--	1.1
Facility Support	--	5,024	W	62	7	W	0	--	12.5
Onsite Transportation	--	399	--	2,086	*	1,697	--	--	4.2
Conventional Electricity Generation	--	--	W	34	262	W	152	--	9.5
Other Nonprocess Use	--	429	23	164	4	Q	0	--	22.6
End Use Not Reported	3,269	12,474	379	499	50	440	172	3,164	15.3
West Census Region									
RSE Column Factors:	NF	0.6	0.9	1.8	0.9	1.1	1.1	NF	
TOTAL INPUTS	2,230	113,899	5,772	5,493	698	9,151	5,965	886	4.7
Indirect Uses-Boiler Fuel	--	1,641	3,119	817	278	1,976	2,272	--	9.8
Direct Uses-Total Process	--	88,463	1,983	2,162	311	5,843	3,627	--	6.4
Process Heating	--	10,551	W	1,013	296	5,215	W	--	7.7
Process Cooling and Refrigeration	--	5,263	0	Q	2	W	0	--	12.9
Machine Drive	--	47,544	W	869	9	W	W	--	9.2
Electro-Chemical Processes	--	24,216	--	--	--	--	--	--	1.1
Other Process Use	--	890	*	Q	4	4	0	--	27.7
Direct Uses-Total Nonprocess	--	20,069	W	2,200	86	1,149	W	--	8.4
Facility Heating, Ventilation, and Air Conditioning *	--	9,154	W	Q	34	114	W	--	16.9
Facility Lighting	--	8,450	--	--	--	--	--	--	1.3
Facility Support	--	2,182	W	61	6	W	0	--	17.5
Onsite Transportation	--	155	--	1,614	*	914	--	--	5.3
Conventional Electricity Generation	--	--	0	337	44	W	W	--	8.1
Other Nonprocess Use	--	127	0	76	2	W	0	--	27.8
End Use Not Reported	930	3,726	W	313	24	184	W	886	15.6

[a] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[b] Includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), *such as producers, brokers, and marketers.*

[d] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power.

* Excludes steam and hot water.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

-- Estimation of energy input is not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A9. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Census Region, and End Use, 1994: Part 2

(Estimates in Trillion Btu)

End-Use Categories	Total	Net Electricity[a]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[b]	Natural Gas[c]	LPG	Coal (excluding Coal Coke and Breeze)	Other[d]	RSE Row Factors
				Total United States					
RSE Column Factors:	NF	0.5	1.3	1.4	0.8	1.2	1.2	NF	
TOTAL INPUTS	16,515	2,656	441	152	6,141	99	1,198	5,828	2.7
Indirect Uses-Boiler Fuel	--	28	313	42	2,396	15	875	--	4.0
Direct Uses-Total Process	--	2,075	106	51	2,872	54	302	--	3.8
Process Heating	--	284	103	29	2,702	49	299	--	4.1
Process Cooling and Refrigeration	--	138	*	*	21	2	*	--	17.5
Machine Drive	--	1,367	3	18	95	3	3	--	7.7
Electro-Chemical Processes	--	271	--	--	--	--	--	--	1.1
Other Process Use	--	15	*	4	53	1	*	--	16.1
Direct Uses-Total Nonprocess	--	457	14	49	726	25	8	--	5.2
Facility Heating, Ventilation, and Air Conditioning[e]	--	217	5	7	351	5	3	--	6.5
Facility Lighting	--	185	--	--	--	--	--	--	1.1
Facility Support	--	46	3	1	30	1	*	--	12.1
Onsite Transportation	--	4	--	35	1	19	--	--	3.9
Conventional Electricity Generation	--	--	5	4	335	1	6	--	8.3
Other Nonprocess Use	--	4	1	2	9	*	0	--	16.9
End Use Not Reported	6,106	96	9	9	148	4	13	5,828	8.8
				Northeast Census Region					
RSE Column Factors:	NF	0.5	1.0	1.2	0.8	1.4	1.4	NF	
TOTAL INPUTS	1,625	321	153	41	517	18	130	446	4.4
Indirect Uses-Boiler Fuel	--	2	119	15	174	2	95	--	8.9
Direct Uses-Total Process	--	236	25	13	250	11	31	--	6.4
Process Heating	--	43	24	9	240	10	31	--	7.8
Process Cooling and Refrigeration	--	16	*	*	1	*	0	--	24.5
Machine Drive	--	151	1	3	6	*	0	--	14.5
Electro-Chemical Processes	--	24	--	--	--	--	--	--	1.3
Other Process Use	--	2	*	*	3	*	0	--	19.1
Direct Uses-Total Nonprocess	--	69	7	11	74	4	*	--	9.1
Facility Heating, Ventilation, and Air Conditioning[e]	--	31	3	5	57	1	*	--	8.1
Facility Lighting	--	29	--	--	--	--	--	--	1.3
Facility Support	--	8	W	*	4	*	0	--	16.5
Onsite Transportation	--	1	--	4	*	3	--	--	5.9
Conventional Electricity Generation	--	--	W	1	12	W	*	--	13.4
Other Nonprocess Use	--	1	1	*	*	W	0	--	30.2
End Use Not Reported	487	14	2	3	18	1	3	446	15.7
				Midwest Census Region					
RSE Column Factors:	NF	0.5	1.3	1.6	0.7	1.2	1.1	NF	
TOTAL INPUTS	4,303	811	75	23	1,635	19	407	1,332	5.2
Indirect Uses-Boiler Fuel	--	8	53	4	517	2	323	--	7.8
Direct Uses-Total Process	--	636	22	7	854	7	77	--	6.7
Process Heating	--	98	W	3	813	6	W	--	8.0
Process Cooling and Refrigeration	--	37	*	*	1	0	*	--	19.5
Machine Drive	--	443	W	2	16	1	W	--	13.4
Electro-Chemical Processes	--	52	--	--	--	--	--	--	1.1
Other Process Use	--	7	*	2	24	*	0	--	18.7
Direct Uses-Total Nonprocess	--	140	W	10	211	9	W	--	8.3
Facility Heating, Ventilation, and Air Conditioning[e]	--	62	W	1	187	2	W	--	12.5
Facility Lighting	--	61	--	--	--	--	--	--	1.2
Facility Support	--	14	*	*	12	*	*	--	16.6
Onsite Transportation	--	2	--	9	*	7	--	--	6.5
Conventional Electricity Generation	--	--	0	*	8	W	W	--	6.6
Other Nonprocess Use	--	2	*	*	3	W	0	--	25.5
End Use Not Reported	1,420	26	W	2	53	1	W	1,332	16.7

See footnotes at end of table.

Table A9. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Census Region, and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

End-Use Categories	Total	Net Electricity[a]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[b]	Natural Gas[c]	LPG	Coal (excluding Coal Coke and Breeze)	Other[d]	RSE Row Factors
				South Census Region					
RSE Column Factors:	NF	0.5	1.3	1.5	0.8	1.2	1.2	NF	
TOTAL INPUTS	8,357	1,135	176	55	3,271	26	530	3,164	3.8
Indirect Uses-Boiler Fuel	--	12	121	19	1,419	3	407	--	5.7
Direct Uses-Total Process	--	901	46	19	1,447	13	115	--	5.5
Process Heating	--	106	45	10	1,345	11	W	--	6.4
Process Cooling and Refrigeration	--	68	*	*	17	W	0	--	17.4
Machine Drive	--	610	1	8	64	W	W	--	13.6
Electro-Chemical Processes	--	113	--	--	--	--	--	--	1.2
Other Process Use	--	4	*	*	22	*	*	--	20.6
Direct Uses-Total Nonprocess	--	179	6	15	353	8	5	--	6.6
Facility Heating, Ventilation, and Air Conditioning*	--	93	W	1	72	2	2	--	9.9
Facility Lighting	--	66	--	--	--	--	--	--	1.1
Facility Support	--	17	W	*	7	W	0	--	12.6
Onsite Transportation	--	1	--	12	*	6	--	--	4.2
Conventional Electricity Generation	--	--	W	*	269	W	3	--	9.4
Other Nonprocess Use	--	1	*	1	4	*	0	--	22.6
End Use Not Reported	3,269	43	2	3	52	2	4	3,164	15.3
				West Census Region					
RSE Column Factors:	NF	0.6	0.9	1.8	0.9	1.1	1.1	NF	
TOTAL INPUTS	2,230	389	36	32	719	37	131	886	4.7
Indirect Uses-Boiler Fuel	--	6	20	5	286	8	50	--	9.8
Direct Uses-Total Process	--	302	12	13	320	24	80	--	6.4
Process Heating	--	36	W	6	305	21	W	--	7.8
Process Cooling and Refrigeration	--	18	0	*	2	W	0	--	12.9
Machine Drive	--	162	W	5	9	W	W	--	9.2
Electro-Chemical Processes	--	83	--	--	--	--	--	--	1.1
Other Process Use	--	3	*	Q	5	*	0	--	27.9
Direct Uses-Total Nonprocess	--	68	W	13	89	4	W	--	8.4
Facility Heating, Ventilation, and Air Conditioning*	--	31	W	Q	35	*	W	--	16.9
Facility Lighting	--	29	--	--	--	--	--	--	1.3
Facility Support	--	7	W	*	6	W	0	--	17.2
Onsite Transportation	--	1	--	9	*	3	--	--	5.3
Conventional Electricity Generation	--	--	0	2	45	W	W	--	8.1
Other Nonprocess Use	--	*	0	*	2	W	0	--	23.7
End Use Not Reported	930	13	W	2	24	1	W	886	15.3

[a] "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

[b] Includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[d] "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power.

* Excludes steam and hot water.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

-- *Estimation of energy input is not applicable.*

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
20-39	**ALL INDUSTRY GROUPS**							
	RSE Column Factors:	0.5	1.4	1.4	0.8	1.2	1.2	
	TOTAL INPUTS	917,832	70,111	26,107	5,962	25,949	54,143	2.4
	Indirect Uses-Boiler Fuel	12,467	49,731	7,296	2,326	3,829	39,496	3.7
	Direct Uses-Total Process	729,423	16,825	8,795	2,788	14,051	13,697	3.8
	Process Heating	86,383	16,326	4,919	2,623	12,515	13,545	4.1
	Process Cooling and Refrigeration	46,650	19	44	20	413	3	17.5
	Machine Drive	494,553	406	3,161	93	869	149	7.7
	Electro-Chemical Processes	96,107	--	--	--	--	--	1.1
	Other Process Use	5,730	74	671	52	254	Q	16.2
	Direct Uses-Total Nonprocess	144,656	2,197	8,394	705	6,860	378	5.2
	Facility Heating, Ventilation, and Air Conditioning *	68,404	777	1,274	341	1,373	118	6.5
	Facility Lighting	58,690	--	--	--	--	--	1.1
	Facility Support	14,806	455	203	29	156	1	12.1
	Onsite Transportation	1,250	--	5,997	1	5,168	--	3.9
	Conventional Electricity Generation	--	797	604	325	119	259	8.3
	Other Nonprocess Use	1,507	167	316	9	44	0	17.1
	End Use Not Reported	31,286	1,359	1,622	143	1,209	571	8.8
20	**FOOD and KINDRED PRODUCTS**							
	RSE Column Factors:	0.6	1.3	1.8	0.9	1.3	0.7	
	TOTAL INPUTS	64,877	4,785	3,180	611	1,707	7,500	5.8
	Indirect Uses-Boiler Fuel	1,214	4,214	1,637	355	444	6,966	7.9
	Direct Uses-Total Process	50,220	447	371	182	537	458	7.9
	Process Heating	2,587	413	133	173	471	W	8.8
	Process Cooling and Refrigeration	14,880	0	39	1	W	0	12.6
	Machine Drive	32,494	7	170	6	34	W	15.2
	Electro-Chemical Processes	101	--	--	--	--	--	1.7
	Other Process Use	159	27	28	1	W	Q	18.6
	Direct Uses-Total Nonprocess	10,290	59	989	55	626	47	10.3
	Facility Heating, Ventilation, and Air Conditioning *	4,545	W	138	34	99	W	15.4
	Facility Lighting	4,266	--	--	--	--	--	1.2
	Facility Support	1,178	Q	33	5	32	W	20.2
	Onsite Transportation	148	--	525	*	491	--	4.3
	Conventional Electricity Generation	--	W	243	15	*	43	12.2
	Other Nonprocess Use	153	0	Q	1	Q	0	39.4
	End Use Not Reported	3,153	65	183	20	Q	Q	16.3
2011	**Meat Packing Plants**							
	RSE Column Factors:	1.0	1.1	1.6	0.9	1.5	0.4	
	TOTAL INPUTS	3,930	138	101	35	W	W	12.2
	Indirect Uses-Boiler Fuel	38	138	37	25	60	*	14.9
	Direct Uses-Total Process	3,352	*	17	8	39	W	15.1
	Process Heating	40	*	*	7	39	W	17.0
	Process Cooling and Refrigeration	2,084	0	Q	*	0	0	13.5
	Machine Drive	1,224	0	0	*	*	0	13.9
	Electro-Chemical Processes	1	--	--	--	--	--	1.8
	Other Process Use	3	0	14	*	*	0	28.8
	Direct Uses-Total Nonprocess	441	*	Q	2	W	W	12.4
	Facility Heating, Ventilation, and Air Conditioning *	180	*	*	2	3	W	16.9
	Facility Lighting	191	--	--	--	--	--	1.4
	Facility Support	57	*	*	*	W	0	25.8
	Onsite Transportation	Q	--	22	0	5	--	4.5
	Conventional Electricity Generation	--	0	0	*	0	0	6.0
	Other Nonprocess Use	0	0	Q	0	*	0	0.0
	End Use Not Reported	Q	0	0	1	*	0	29.7

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2033	**Canned Fruits and Vegetables**							
	RSE Column Factors:	0.9	0.8	1.8	0.8	1.2	0.8	
	TOTAL INPUTS	1,893	241	119	42	W	W	14.1
	Indirect Uses-Boiler Fuel	43	218	26	34	*	W	20.9
	Direct Uses-Total Process	1,542	22	7	2	5	0	25.9
	Process Heating	46	22	0	1	Q	0	28.4
	Process Cooling and Refrigeration	443	0	0	*	0	0	28.1
	Machine Drive	1,036	0	7	*	2	0	21.3
	Electro-Chemical Processes	13	--	--	--	--	--	1.8
	Other Process Use	4	0	0	*	0	0	42.4
	Direct Uses-Total Nonprocess	297	*	78	6	W	0	12.1
	Facility Heating, Ventilation, and Air Conditioning [e]	114	*	*	2	W	0	17.1
	Facility Lighting	136	--	--	--	--	--	1.4
	Facility Support	39	0	*	*	W	0	19.9
	Onsite Transportation	7	--	44	0	100	--	5.6
	Conventional Electricity Generation	--	0	34	4	0	0	9.5
	Other Nonprocess Use	0	0	0	0	*	0	0.0
	End Use Not Reported	Q	*	Q	*	6	0	21.6
2037	***Frozen Fruits and Vegetables***							
	RSE Column Factors:	1.1	1.1	1.8	0.8	1.4	0.4	
	TOTAL INPUTS	2,992	204	62	27	74	0	13.5
	Indirect Uses-Boiler Fuel	47	119	39	20	25	0	19.1
	Direct Uses-Total Process	2,584	Q	4	5	14	0	13.3
	Process Heating	134	Q	Q	5	11	0	18.0
	Process Cooling and Refrigeration	1,352	0	Q	*	0	0	16.2
	Machine Drive	1,087	0	*	*	3	0	13.1
	Electro-Chemical Processes	1	--	--	--	--	--	1.8
	Other Process Use	10	0	1	0	0	0	22.6
	Direct Uses-Total Nonprocess	361	1	12	1	34	0	15.4
	Facility Heating, Ventilation, and Air Conditioning [e]	143	1	1	1	Q	0	20.7
	Facility Lighting	169	--	--	--	--	--	1.5
	Facility Support	43	1	0	*	*	0	26.4
	Onsite Transportation	6	--	11	0	29	--	5.8
	Conventional Electricity Generation	--	0	*	0	0	0	4.2
	Other Nonprocess Use	1	0	*	0	0	0	31.0
	End Use Not Reported	0	Q	6	*	Q	0	37.7
2046	**Wet Corn Milling**							
	RSE Column Factors:	1.1	0.8	1.7	0.9	1.4	0.5	
	TOTAL INPUTS	7,327	169	10	67	9	3,556	18.1
	Indirect Uses-Boiler Fuel	118	169	4	34	*	3,556	24.3
	Direct Uses-Total Process	6,627	0	3	32	8	0	16.0
	Process Heating	19	0	2	32	8	0	23.6
	Process Cooling and Refrigeration	35	0	0	0	0	0	18.6
	Machine Drive	6,574	0	1	0	0	0	14.8
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	458	0	3	*	1	0	13.2
	Facility Heating, Ventilation, and Air Conditioning [e]	166	0	*	*	*	0	17.9
	Facility Lighting	206	--	--	--	--	--	1.5
	Facility Support	65	0	*	*	0	0	25.9
	Onsite Transportation	1	--	3	0	1	--	6.9
	Conventional Electricity Generation	--	0	*	0	0	0	4.5
	Other Nonprocess Use	21	0	0	*	0	0	40.6
	End Use Not Reported	123	0	0	*	*	0	32.3

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2051	**Bread, Cake, and Related Products**							
	RSE Column Factors:	1.0	0.4	2.2	1.2	2.1	0.4	
	TOTAL INPUTS	2,490	Q	131	26	89	0	11.0
	Indirect Uses-Boiler Fuel	42	Q	Q	4	Q	0	17.0
	Direct Uses-Total Process	1,699	Q	19	18	Q	0	10.4
	Process Heating	199	Q	13	18	Q	0	14.2
	Process Cooling and Refrigeration	398	0	0	*	0	0	22.7
	Machine Drive	1,094	0	0	*	0	0	8.4
	Electro-Chemical Processes	Q	--	--	--	--	--	1.0
	Other Process Use	Q	0	6	*	0	0	20.7
	Direct Uses-Total Nonprocess	639	0	87	3	11	0	12.3
	Facility Heating, Ventilation, and Air Conditioning[e]	256	0	Q	2	2	0	12.8
	Facility Lighting	280	--	--	--	--	--	1.4
	Facility Support	96	0	*	*	*	0	18.3
	Onsite Transportation	4	--	49	0	8	--	8.6
	Conventional Electricity Generation	--	0	13	1	*	0	9.1
	Other Nonprocess Use	Q	0	Q	0	0	0	0.0
	End Use Not Reported	110	0	0	1	Q	0	29.5
2061	**Cane Sugar, Except Refining**							
	RSE Column Factors:	0.9	1.0	1.1	0.9	1.4	0.8	
	TOTAL INPUTS	675	W	220	2	W	W	14.2
	Indirect Uses-Boiler Fuel	48	348	22	2	1	W	16.6
	Direct Uses-Total Process	516	5	23	*	*	0	20.0
	Process Heating	39	W	16	*	0	0	23.3
	Process Cooling and Refrigeration	W	0	0	0	0	0	21.0
	Machine Drive	444	W	6	0	0	0	18.0
	Electro-Chemical Processes	W	--	--	--	--	--	1.8
	Other Process Use	20	0	0	0	*	0	22.0
	Direct Uses-Total Nonprocess	112	W	140	W	W	0	16.3
	Facility Heating, Ventilation, and Air Conditioning[e]	34	0	0	W	W	0	16.4
	Facility Lighting	44	--	--	--	--	--	1.4
	Facility Support	9	0	0	*	0	0	16.5
	Onsite Transportation	0	--	82	0	*	--	4.3
	Conventional Electricity Generation	--	W	58	0	0	0	9.0
	Other Nonprocess Use	24	0	*	0	0	0	24.2
	End Use Not Reported	*	W	35	W	*	0	25.6
2062	**Cane Sugar Refining**							
	RSE Column Factors:	1.2	0.8	1.7	1.0	1.4	0.4	
	TOTAL INPUTS	436	313	97	16	4	0	20.2
	Indirect Uses-Boiler Fuel	62	307	24	15	*	0	21.9
	Direct Uses-Total Process	331	6	70	1	*	0	24.3
	Process Heating	21	5	3	1	*	0	26.0
	Process Cooling and Refrigeration	18	0	0	0	0	0	23.2
	Machine Drive	291	1	67	0	0	0	29.8
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	44	0	4	*	4	0	21.1
	Facility Heating, Ventilation, and Air Conditioning[e]	13	0	0	*	0	0	29.1
	Facility Lighting	24	--	--	--	--	--	1.7
	Facility Support	7	0	1	0	0	0	22.1
	Onsite Transportation	1	--	2	0	4	--	8.6
	Conventional Electricity Generation	--	0	1	0	0	0	5.0
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	0	0	0	0	*	0	33.9

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2063	**Beet Sugar**							
	RSE Column Factors:	0.8	0.9	1.2	1.0	1.1	1.0	
	TOTAL INPUTS	947	270	W	18	W	1,790	2.9
	Indirect Uses-Boiler Fuel	11	115	*	12	0	1,330	5.1
	Direct Uses-Total Process	819	155	W	6	1	432	4.7
	Process Heating	W	155	W	6	W	W	6.1
	Process Cooling and Refrigeration	W	0	0	0	0	0	10.8
	Machine Drive	W	0	0	*	W	W	6.5
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	97	0	18	*	W	28	3.9
	Facility Heating, Ventilation, and Air Conditioning[e]	28	0	0	*	W	W	5.9
	Facility Lighting	49	--	--	--	--	--	1.2
	Facility Support	20	0	0	*	W	W	6.7
	Onsite Transportation	*	--	17	0	3	--	2.6
	Conventional Electricity Generation	--	0	*	*	0	W	4.9
	Other Nonprocess Use	0	0	0	0	*	0	9.1
	End Use Not Reported	20	0	0	0	*	0	9.3
2075	**Soybean Oil Mills**							
	RSE Column Factors:	1.3	0.8	1.2	1.0	0.9	0.9	
	TOTAL INPUTS	2,248	147	W	29	W	682	1.3
	Indirect Uses-Boiler Fuel	75	W	35	21	W	W	1.4
	Direct Uses-Total Process	2,025	0	W	7	W	W	1.0
	Process Heating	33	0	W	6	0	W	0.9
	Process Cooling and Refrigeration	119	0	0	0	0	0	2.2
	Machine Drive	1,870	0	W	0	0	0	0.8
	Electro-Chemical Processes	*	--	--	--	--	--	1.0
	Other Process Use	4	0	0	1	W	0	1.0
	Direct Uses-Total Nonprocess	147	W	9	W	W	W	1.1
	Facility Heating, Ventilation, and Air Conditioning[e]	63	W	0	W	W	0	1.0
	Facility Lighting	63	--	--	--	--	--	1.1
	Facility Support	20	*	0	*	0	0	1.0
	Onsite Transportation	1	--	W	0	W	--	2.1
	Conventional Electricity Generation	--	0	W	W	0	W	0.9
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	1	0	*	W	*	0	0.9
2082	**Malt Beverages**							
	RSE Column Factors:	1.5	0.2	2.4	1.6	1.3	0.7	
	TOTAL INPUTS	2,975	W	21	21	W	789	6.8
	Indirect Uses-Boiler Fuel	59	W	14	19	W	789	8.8
	Direct Uses-Total Process	2,355	W	*	2	W	0	7.7
	Process Heating	W	W	0	2	W	0	16.4
	Process Cooling and Refrigeration	943	0	*	0	0	0	5.2
	Machine Drive	1,360	0	0	0	0	0	3.9
	Electro-Chemical Processes	0	--	--	--	--	--	1.1
	Other Process Use	W	0	0	0	0	0	0.6
	Direct Uses-Total Nonprocess	500	W	6	1	W	0	10.3
	Facility Heating, Ventilation, and Air Conditioning[e]	201	W	2	1	W	0	8.0
	Facility Lighting	214	--	--	--	--	--	1.4
	Facility Support	W	0	0	0	0	0	15.6
	Onsite Transportation	14	--	4	*	W	--	5.7
	Conventional Electricity Generation	--	0	0	0	0	0	0.6
	Other Nonprocess Use	W	0	*	0	0	0	2.1
	End Use Not Reported	61	0	0	0	*	0	13.0

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
21	**TOBACCO PRODUCTS**							
	RSE Column Factors:	0.7	0.9	1.8	0.9	1.5	0.6	
	TOTAL INPUTS	1,572	133	W	W	W	W	20.9
	Indirect Uses-Boiler Fuel	6	119	17	2	W	W	25.8
	Direct Uses-Total Process	988	8	W	1	*	0	23.3
	Process Heating	13	7	*	1	*	0	26.9
	Process Cooling and Refrigeration	36	1	0	*	0	0	38.7
	Machine Drive	873	0	W	*	0	0	25.6
	Electro-Chemical Processes	0	--	--	--	--	--	0.9
	Other Process Use	66	0	0	*	0	0	39.8
	Direct Uses-Total Nonprocess	576	6	1	W	14	0	26.1
	Facility Heating, Ventilation, and Air Conditioning[e]	407	4	0	W	Q	0	33.5
	Facility Lighting	137	--	--	--	--	--	1.6
	Facility Support	32	2	0	*	0	0	34.3
	Onsite Transportation	0	--	*	0	13	--	5.1
	Conventional Electricity Generation	--	0	1	0	0	0	5.6
	Other Nonprocess Use	0	0	*	0	*	0	23.2
	End Use Not Reported	Q	0	0	0	0	0	0.0
22	**TEXTILE MILL PRODUCTS**							
	RSE Column Factors:	0.9	0.8	1.3	0.9	1.2	0.9	
	TOTAL INPUTS	33,124	2,680	W	113	W	1,821	11.9
	Indirect Uses-Boiler Fuel	320	2,360	1,000	67	W	1,794	15.8
	Direct Uses-Total Process	22,622	168	W	35	728	0	15.1
	Process Heating	1,456	125	W	32	695	0	19.1
	Process Cooling and Refrigeration	2,005	0	0	*	0	0	13.5
	Machine Drive	18,885	Q	Q	Q	Q	0	6.7
	Electro-Chemical Processes	53	--	--	--	--	--	1.9
	Other Process Use	223	0	0	*	Q	0	55.1
	Direct Uses-Total Nonprocess	8,567	W	82	7	224	W	18.2
	Facility Heating, Ventilation, and Air Conditioning[e]	4,625	W	53	7	W	W	17.1
	Facility Lighting	3,211	--	--	--	--	--	1.4
	Facility Support	667	W	*	W	W	0	27.7
	Onsite Transportation	49	--	3	*	W	--	8.2
	Conventional Electricity Generation	--	0	W	W	W	W	14.4
	Other Nonprocess Use	15	Q	W	0	0	0	35.7
	End Use Not Reported	1,615	W	W	3	8	W	26.7
23	**APPAREL and OTHER TEXTILE PRODUCTS**							
	RSE Column Factors:	1.3	0.8	1.7	0.9	1.6	0.4	
	TOTAL INPUTS	7,748	W	106	24	W	W	16.3
	Indirect Uses-Boiler Fuel	Q	27	50	9	Q	W	26.4
	Direct Uses-Total Process	3,336	W	W	6	Q	0	10.4
	Process Heating	223	0	Q	4	Q	0	17.4
	Process Cooling and Refrigeration	91	0	0	*	0	0	19.5
	Machine Drive	3,017	W	W	2	Q	0	14.5
	Electro-Chemical Processes	Q	--	--	--	--	--	1.1
	Other Process Use	Q	0	W	*	*	0	53.1
	Direct Uses-Total Nonprocess	3,291	0	42	7	61	0	16.4
	Facility Heating, Ventilation, and Air Conditioning[e]	1,753	0	42	7	37	0	20.0
	Facility Lighting	1,260	--	--	--	--	--	1.6
	Facility Support	241	0	*	1	Q	0	17.0
	Onsite Transportation	10	--	1	0	23	--	8.0
	Conventional Electricity Generation	--	0	0	*	0	0	0.8
	Other Nonprocess Use	Q	0	*	*	0	0	0.0
	End Use Not Reported	922	0	W	2	W	0	19.3

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
24	**LUMBER and WOOD PRODUCTS**							
	RSE Column Factors:	0.8	1.4	1.5	0.8	1.1	0.7	
	TOTAL INPUTS	21,767	W	3,793	47	W	W	8.9
	Indirect Uses-Boiler Fuel	615	213	206	15	W	W	17.1
	Direct Uses-Total Process	16,816	19	1,828	23	370	0	11.2
	Process Heating	1,053	19	99	20	251	0	14.8
	Process Cooling and Refrigeration	107	0	0	*	W	0	23.6
	Machine Drive	15,482	0	1,459	1	104	0	12.9
	Electro-Chemical Processes	12	--	--	--	--	--	1.7
	Other Process Use	161	0	Q	Q	W	0	23.1
	Direct Uses-Total Nonprocess	2,700	W	1,370	7	544	0	10.3
	Facility Heating, Ventilation, and Air Conditioning[e]	986	W	Q	6	89	0	15.7
	Facility Lighting	1,402	--	--	--	--	--	1.3
	Facility Support	274	0	Q	*	1	0	23.8
	Onsite Transportation	18	--	1,140	*	454	--	4.5
	Conventional Electricity Generation	--	0	49	*	0	0	5.5
	Other Nonprocess Use	20	0	75	*	*	0	39.2
	End Use Not Reported	1,637	0	389	3	60	0	15.9
2421	***Sawmills and Planing Mills, General***							
	RSE Column Factors:	0.6	1.0	1.5	1.1	1.6	0.6	
	TOTAL INPUTS	7,902	W	1,206	11	W	0	12.6
	Indirect Uses-Boiler Fuel	315	10	48	5	W	0	26.6
	Direct Uses-Total Process	6,039	*	377	5	16	0	13.8
	Process Heating	389	*	62	5	4	0	18.7
	Process Cooling and Refrigeration	Q	0	0	*	W	0	80.3
	Machine Drive	5,616	0	315	*	12	0	13.8
	Electro-Chemical Processes	*	--	--	--	--	--	0.9
	Other Process Use	Q	0	0	0	W	0	31.1
	Direct Uses-Total Nonprocess	782	W	662	*	62	0	13.7
	Facility Heating, Ventilation, and Air Conditioning[e]	295	W	5	*	Q	0	22.0
	Facility Lighting	375	--	--	--	--	--	1.4
	Facility Support	96	0	Q	*	*	0	19.2
	Onsite Transportation	Q	--	638	0	46	--	3.5
	Conventional Electricity Generation	--	0	Q	0	0	0	1.6
	Other Nonprocess Use	Q	0	1	0	*	0	23.3
	End Use Not Reported	767	0	120	*	9	0	24.3
2436	**Softwood Veneer and Plywood**							
	RSE Column Factors:	1.7	0.4	1.8	1.5	1.4	0.4	
	TOTAL INPUTS	2,881	Q	251	3	168	0	7.9
	Indirect Uses-Boiler Fuel	97	Q	Q	*	5	0	13.2
	Direct Uses-Total Process	2,351	0	40	2	28	0	11.9
	Process Heating	177	0	0	2	*	0	13.0
	Process Cooling and Refrigeration	11	0	0	0	0	0	7.6
	Machine Drive	2,160	0	W	0	W	0	12.9
	Electro-Chemical Processes	W	--	--	--	--	--	1.8
	Other Process Use	W	0	W	0	W	0	12.3
	Direct Uses-Total Nonprocess	342	0	164	*	126	0	11.0
	Facility Heating, Ventilation, and Air Conditioning[e]	106	0	*	*	1	0	18.3
	Facility Lighting	203	--	--	--	--	--	1.6
	Facility Support	28	0	0	0	0	0	8.8
	Onsite Transportation	*	--	121	0	124	--	5.4
	Conventional Electricity Generation	--	0	42	0	0	0	3.5
	Other Nonprocess Use	4	0	1	0	0	0	13.5
	End Use Not Reported	91	0	7	*	9	0	19.3

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2493	**Reconstituted Wood Products**							
	RSE Column Factors:	1.0	1.2	1.4	0.8	1.2	0.6	
	TOTAL INPUTS	4,592	W	W	17	W	W	13.1
	Indirect Uses-Boiler Fuel	130	171	22	5	W	W	18.2
	Direct Uses-Total Process	3,995	19	45	11	242	0	16.2
	Process Heating	245	19	Q	9	232	0	16.4
	Process Cooling and Refrigeration	34	0	0	0	0	0	17.5
	Machine Drive	3,555	0	23	1	8	0	18.6
	Electro-Chemical Processes	9	--	--	--	--	--	1.7
	Other Process Use	151	0	0	Q	Q	0	24.3
	Direct Uses-Total Nonprocess	393	W	57	1	81	0	15.0
	Facility Heating, Ventilation, and Air Conditioning *	142	W	0	1	10	0	19.8
	Facility Lighting	217	--	--	--	--	--	1.4
	Facility Support	W	0	*	*	*	0	25.3
	Onsite Transportation	W	--	56	0	71	--	4.7
	Conventional Electricity Generation	--	0	*	0	0	0	4.3
	Other Nonprocess Use	Q	0	0	0	0	0	0.0
	End Use Not Reported	74	0	W	1	3	0	36.6
25	**FURNITURE and FIXTURES**							
	RSE Column Factors:	0.8	1.1	1.3	0.7	1.1	1.2	
	TOTAL INPUTS	6,671	60	153	23	211	115	11.7
	Indirect Uses-Boiler Fuel	73	40	72	4	3	98	20.5
	Direct Uses-Total Process	4,018	14	Q	8	48	9	18.7
	Process Heating	246	12	2	8	25	8	23.8
	Process Cooling and Refrigeration	84	0	0	*	0	0	38.6
	Machine Drive	3,578	2	Q	*	23	1	25.8
	Electro-Chemical Processes	30	--	--	--	--	--	1.8
	Other Process Use	80	0	0	*	*	0	45.7
	Direct Uses-Total Nonprocess	2,068	Q	65	9	143	1	14.1
	Facility Heating, Ventilation, and Air Conditioning *	821	Q	44	9	17	1	19.3
	Facility Lighting	1,037	--	--	--	--	--	1.4
	Facility Support	192	0	0	*	*	0	20.0
	Onsite Transportation	14	--	21	0	W	--	5.1
	Conventional Electricity Generation	--	0	0	0	W	0	6.9
	Other Nonprocess Use	3	0	*	*	2	0	39.8
	End Use Not Reported	512	Q	5	2	17	Q	30.2
2511	**Wood Furniture, Except Upholstered**							
	RSE Column Factors:	0.6	1.1	1.2	1.0	1.4	1.0	
	TOTAL INPUTS	2,214	47	62	2	59	56	15.8
	Indirect Uses-Boiler Fuel	41	32	21	*	1	42	25.3
	Direct Uses-Total Process	1,608	14	2	*	7	8	33.1
	Process Heating	59	11	Q	*	6	6	37.3
	Process Cooling and Refrigeration	8	0	0	0	0	0	46.6
	Machine Drive	1,494	2	1	*	1	1	31.3
	Electro-Chemical Processes	Q	--	--	--	--	--	0.9
	Other Process Use	46	0	0	*	0	0	56.4
	Direct Uses-Total Nonprocess	423	2	34	1	48	1	23.0
	Facility Heating, Ventilation, and Air Conditioning *	130	2	Q	1	Q	1	28.6
	Facility Lighting	245	--	--	--	--	--	1.4
	Facility Support	47	0	0	*	*	0	30.6
	Onsite Transportation	2	--	20	0	W	--	5.8
	Conventional Electricity Generation	--	0	0	0	W	0	7.4
	Other Nonprocess Use	0	0	*	*	1	0	32.6
	End Use Not Reported	141	0	4	*	3	Q	39.1

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
26	**PAPER and ALLIED PRODUCTS**							
	RSE Column Factors:	0.6	1.1	1.2	0.7	1.4	1.3	
	TOTAL INPUTS	121,835	27,444	1,560	558	1,315	13,812	3.3
	Indirect Uses-Boiler Fuel	4,017	21,946	783	390	140	13,470	5.0
	Direct Uses-Total Process	103,909	5,023	W	112	420	W	6.3
	Process Heating	2,327	4,787	234	99	335	W	7.5
	Process Cooling and Refrigeration	1,672	0	0	1	0	0	11.8
	Machine Drive	97,678	236	88	10	81	W	12.5
	Electro-Chemical Processes	1,043	--	--	--	--	--	1.5
	Other Process Use	1,189	0	W	2	4	0	13.9
	Direct Uses-Total Nonprocess	10,514	251	415	49	681	W	6.1
	Facility Heating, Ventilation, and Air Conditioning[e]	4,642	W	83	16	W	W	11.6
	Facility Lighting	4,555	--	--	--	--	--	1.2
	Facility Support	1,149	W	2	1	12	0	16.5
	Onsite Transportation	79	--	326	*	626	--	2.5
	Conventional Electricity Generation	--	W	3	30	W	W	9.8
	Other Nonprocess Use	90	W	*	2	15	0	25.4
	End Use Not Reported	3,395	224	W	7	74	W	13.2
2611	**Pulp Mills**							
	RSE Column Factors:	1.2	0.7	1.2	1.0	1.2	0.7	
	TOTAL INPUTS	7,743	3,583	W	21	W	328	12.5
	Indirect Uses-Boiler Fuel	356	2,806	111	14	32	328	16.4
	Direct Uses-Total Process	6,637	692	32	7	27	0	12.8
	Process Heating	50	692	11	7	24	0	16.3
	Process Cooling and Refrigeration	153	0	0	0	0	0	12.3
	Machine Drive	6,249	0	21	*	3	0	18.1
	Electro-Chemical Processes	97	--	--	--	--	--	1.7
	Other Process Use	88	0	0	0	1	0	25.4
	Direct Uses-Total Nonprocess	750	0	32	1	10	0	12.3
	Facility Heating, Ventilation, and Air Conditioning[e]	407	0	3	1	0	0	20.1
	Facility Lighting	305	--	--	--	--	--	1.5
	Facility Support	35	0	0	*	1	0	20.9
	Onsite Transportation	0	--	30	0	8	--	3.6
	Conventional Electricity Generation	--	0	0	0	0	0	0.8
	Other Nonprocess Use	3	0	0	0	0	0	20.5
	End Use Not Reported	0	84	W	0	W	0	29.8
2621	**Paper Mills**							
	RSE Column Factors:	0.7	1.0	1.1	0.8	1.1	1.3	
	TOTAL INPUTS	65,978	14,942	744	263	465	8,783	5.0
	Indirect Uses-Boiler Fuel	1,784	12,130	337	189	W	W	7.7
	Direct Uses-Total Process	57,704	2,740	208	47	192	W	9.6
	Process Heating	633	2,661	152	43	186	W	11.4
	Process Cooling and Refrigeration	750	0	0	*	0	0	20.4
	Machine Drive	55,027	80	55	W	6	W	13.8
	Electro-Chemical Processes	677	--	--	--	--	--	1.6
	Other Process Use	616	0	1	W	0	0	23.8
	Direct Uses-Total Nonprocess	4,535	W	189	25	195	W	8.6
	Facility Heating, Ventilation, and Air Conditioning[e]	1,979	W	W	3	4	W	10.8
	Facility Lighting	1,906	--	--	--	--	--	1.3
	Facility Support	555	W	*	*	*	0	17.4
	Onsite Transportation	27	--	184	0	189	--	3.3
	Conventional Electricity Generation	--	W	W	22	0	W	10.6
	Other Nonprocess Use	67	W	*	*	2	0	25.8
	End Use Not Reported	1,955	W	10	2	W	0	17.7

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2631	**Paperboard Mills**							
	RSE Column Factors:	0.8	1.0	1.2	0.9	1.0	1.2	
	TOTAL INPUTS	32,643	7,914	W	194	W	4,552	2.6
	Indirect Uses-Boiler Fuel	1,678	6,215	181	145	W	W	4.7
	Direct Uses-Total Process	28,251	1,425	W	35	22	W	5.0
	Process Heating	573	W	*	30	18	W	6.8
	Process Cooling and Refrigeration	240	0	0	W	0	0	8.6
	Machine Drive	26,767	W	W	W	W	0	7.6
	Electro-Chemical Processes	222	--	--	--	--	--	1.5
	Other Process Use	449	0	W	0	W	0	11.8
	Direct Uses-Total Nonprocess	1,814	W	107	11	84	W	6.2
	Facility Heating, Ventilation, and Air Conditioning *	704	W	W	W	1	0	7.7
	Facility Lighting	883	--	--	--	--	--	1.2
	Facility Support	222	0	W	*	0	0	9.2
	Onsite Transportation	W	--	105	0	83	--	2.7
	Conventional Electricity Generation	--	W	W	8	0	W	7.7
	Other Nonprocess Use	W	0	*	W	0	0	13.1
	End Use Not Reported	899	W	W	2	W	W	9.8
27	**PRINTING and PUBLISHING**							
	RSE Column Factors:	0.7	1.2	1.8	0.9	1.7	0.4	
	TOTAL INPUTS	17,422	W	261	46	W	0	7.8
	Indirect Uses-Boiler Fuel	69	33	101	10	W	0	14.0
	Direct Uses-Total Process	9,111	W	Q	16	83	0	8.2
	Process Heating	463	0	Q	14	55	0	11.3
	Process Cooling and Refrigeration	712	0	0	*	0	0	15.4
	Machine Drive	7,858	0	*	1	26	0	13.0
	Electro-Chemical Processes	51	--	--	--	--	--	1.6
	Other Process Use	28	W	*	*	3	0	28.7
	Direct Uses-Total Nonprocess	6,519	W	133	15	205	0	11.4
	Facility Heating, Ventilation, and Air Conditioning *	3,455	W	93	13	87	0	11.4
	Facility Lighting	2,195	--	--	--	--	--	1.3
	Facility Support	790	5	1	1	4	0	15.6
	Onsite Transportation	46	--	W	*	101	--	5.4
	Conventional Electricity Generation	--	0	W	*	0	0	10.3
	Other Nonprocess Use	34	0	*	*	Q	0	35.4
	End Use Not Reported	1,723	0	24	5	17	0	16.8
28	**CHEMICALS and ALLIED PRODUCTS**							
	RSE Column Factors:	0.6	1.2	1.0	0.8	1.6	1.0	
	TOTAL INPUTS	199,284	9,567	2,201	1,840	W	11,597	5.9
	Indirect Uses-Boiler Fuel	2,646	5,944	1,264	904	402	11,050	9.2
	Direct Uses-Total Process	178,483	2,845	W	686	412	453	8.5
	Process Heating	6,565	2,835	259	619	336	W	9.5
	Process Cooling and Refrigeration	12,698	*	2	10	W	*	23.6
	Machine Drive	122,820	*	97	38	Q	W	16.0
	Electro-Chemical Processes	35,644	--	--	--	--	--	1.3
	Other Process Use	756	Q	W	19	W	0	20.0
	Direct Uses-Total Nonprocess	15,232	W	497	223	252	W	10.3
	Facility Heating, Ventilation, and Air Conditioning *	7,538	W	67	16	44	24	15.7
	Facility Lighting	5,750	--	--	--	--	--	1.2
	Facility Support	1,614	W	Q	3	W	0	11.2
	Onsite Transportation	65	--	307	*	192	--	4.8
	Conventional Electricity Generation	--	W	19	201	W	W	13.7
	Other Nonprocess Use	265	W	72	3	*	0	19.0
	End Use Not Reported	2,923	W	W	26	W	W	15.4

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2812	**Alkalies and Chlorine**							
	RSE Column Factors:	0.9	1.0	1.1	1.0	1.2	0.8	
	TOTAL INPUTS	17,556	W	51	52	1	W	8.3
	Indirect Uses-Boiler Fuel	W	W	41	W	*	W	10.9
	Direct Uses-Total Process	17,347	0	W	2	*	0	7.8
	Process Heating	W	0	W	W	0	0	9.8
	Process Cooling and Refrigeration	W	0	0	0	0	0	8.0
	Machine Drive	1,669	0	W	*	*	0	9.3
	Electro-Chemical Processes	15,416	--	--	--	--	--	1.3
	Other Process Use	W	0	0	W	0	0	14.9
	Direct Uses-Total Nonprocess	W	W	W	W	1	0	8.8
	Facility Heating, Ventilation, and Air Conditioning[e]	53	W	0	W	0	0	8.7
	Facility Lighting	126	--	--	--	--	--	1.3
	Facility Support	W	0	0	W	0	0	12.6
	Onsite Transportation	0	--	W	0	1	--	2.8
	Conventional Electricity Generation	--	0	0	W	0	0	3.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	0	0	*	0	*	0	12.1
2813	**Industrial Gases**							
	RSE Column Factors:	0.7	0.9	1.0	1.5	1.4	0.9	
	TOTAL INPUTS	24,038	0	W	18	W	0	16.1
	Indirect Uses-Boiler Fuel	854	0	1	6	*	0	36.3
	Direct Uses-Total Process	22,204	0	0	9	1	0	18.3
	Process Heating	461	0	0	9	1	0	28.0
	Process Cooling and Refrigeration	732	0	0	0	0	0	24.6
	Machine Drive	21,001	0	0	*	0	0	14.2
	Electro-Chemical Processes	0	--	--	--	--	--	0.9
	Other Process Use	9	0	0	*	0	0	75.3
	Direct Uses-Total Nonprocess	665	0	W	3	*	0	20.8
	Facility Heating, Ventilation, and Air Conditioning[e]	409	0	0	*	*	0	20.6
	Facility Lighting	187	--	--	--	--	--	1.4
	Facility Support	69	0	0	*	0	0	21.2
	Onsite Transportation	0	--	W	0	0	--	1.2
	Conventional Electricity Generation	--	0	0	2	0	0	6.6
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	315	0	0	0	W	0	56.8
2816	***Inorganic Pigments***							
	RSE Column Factors:	1.4	0.7	1.2	0.8	1.2	0.9	
	TOTAL INPUTS	2,393	W	W	W	W	W	9.3
	Indirect Uses-Boiler Fuel	5	W	21	10	*	W	11.7
	Direct Uses-Total Process	2,266	0	W	11	W	W	10.1
	Process Heating	W	0	20	11	W	W	10.6
	Process Cooling and Refrigeration	121	0	0	0	0	0	7.2
	Machine Drive	1,442	0	W	*	W	0	12.4
	Electro-Chemical Processes	W	--	--	--	--	--	1.6
	Other Process Use	W	0	0	0	*	0	14.2
	Direct Uses-Total Nonprocess	117	0	17	*	5	0	7.2
	Facility Heating, Ventilation, and Air Conditioning[e]	56	0	*	*	*	0	9.6
	Facility Lighting	51	--	--	--	--	--	1.4
	Facility Support	W	0	0	*	*	0	9.0
	Onsite Transportation	W	--	17	0	4	--	4.2
	Conventional Electricity Generation	--	0	0	0	0	0	0.7
	Other Nonprocess Use	0	0	*	0	0	0	17.1
	End Use Not Reported	5	0	W	W	*	0	16.6

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2819	**Industrial Inorganic Chemicals, nec.**							
	RSE Column Factors:	1.2	0.8	1.3	0.8	1.3	0.7	
	TOTAL INPUTS	45,315	588	W	W	W	1,451	11.3
	Indirect Uses-Boiler Fuel	189	168	110	71	11	1,165	13.4
	Direct Uses-Total Process	43,581	405	63	61	16	W	14.0
	Process Heating	2,126	405	32	60	13	W	13.0
	Process Cooling and Refrigeration	394	0	0	0	0	0	7.4
	Machine Drive	36,838	0	29	Q	4	0	25.2
	Electro-Chemical Processes	4,223	--	--	--	--	--	1.5
	Other Process Use	0	0	1	*	0	0	19.5
	Direct Uses-Total Nonprocess	1,513	Q	83	4	14	W	11.9
	Facility Heating, Ventilation, and Air Conditioning[e]	715	Q	12	2	3	W	15.9
	Facility Lighting	553	--	--	--	--	--	1.5
	Facility Support	223	0	W	*	*	0	16.7
	Onsite Transportation	10	--	W	0	11	--	5.4
	Conventional Electricity Generation	--	0	4	2	0	0	6.8
	Other Nonprocess Use	Q	0	*	0	0	0	19.5
	End Use Not Reported	33	5	W	W	W	0	31.3
2821	**Plastics Materials and Resins**							
	RSE Column Factors:	0.8	0.9	1.2	1.0	1.7	0.7	
	TOTAL INPUTS	21,060	542	186	W	W	875	9.3
	Indirect Uses-Boiler Fuel	306	W	97	112	8	875	10.9
	Direct Uses-Total Process	17,859	W	W	51	W	0	13.3
	Process Heating	W	W	19	37	W	0	17.0
	Process Cooling and Refrigeration	1,617	0	0	*	W	0	9.7
	Machine Drive	12,050	0	W	6	W	0	10.9
	Electro-Chemical Processes	3,279	--	--	--	--	--	1.5
	Other Process Use	W	*	*	8	W	0	21.3
	Direct Uses-Total Nonprocess	1,606	*	44	19	43	0	11.6
	Facility Heating, Ventilation, and Air Conditioning[e]	768	0	*	1	Q	0	13.1
	Facility Lighting	626	--	--	--	--	--	1.3
	Facility Support	204	0	W	W	1	0	11.9
	Onsite Transportation	W	--	W	0	26	--	4.1
	Conventional Electricity Generation	--	0	W	W	0	0	6.0
	Other Nonprocess Use	W	*	W	*	0	0	22.2
	End Use Not Reported	1,289	0	W	W	W	0	24.9
2822	**Synthetic Rubber**							
	RSE Column Factors:	1.0	0.6	1.3	1.3	1.3	0.7	
	TOTAL INPUTS	2,436	W	15	41	W	W	20.7
	Indirect Uses-Boiler Fuel	17	W	8	23	0	W	28.1
	Direct Uses-Total Process	2,098	0	W	17	0	0	18.2
	Process Heating	17	0	0	15	0	0	21.3
	Process Cooling and Refrigeration	377	0	0	*	0	0	22.7
	Machine Drive	1,698	0	W	*	0	0	19.9
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	6	0	0	2	0	0	33.6
	Direct Uses-Total Nonprocess	272	0	3	*	W	0	15.2
	Facility Heating, Ventilation, and Air Conditioning[e]	140	0	0	*	W	0	18.6
	Facility Lighting	89	--	--	--	--	--	1.6
	Facility Support	43	0	1	*	0	0	22.9
	Onsite Transportation	1	--	2	0	4	--	7.3
	Conventional Electricity Generation	--	0	0	*	0	0	5.7
	Other Nonprocess Use	0	0	*	*	0	0	33.3
	End Use Not Reported	49	0	W	*	0	0	20.8

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2823	**Cellulosic Manmade Fibers**							
	RSE Column Factors:	1.0	1.0	1.0	1.0	1.0	1.0	
	TOTAL INPUTS	898	0	23	W	W	W	1.0
	Indirect Uses-Boiler Fuel	W	0	W	W	0	W	1.0
	Direct Uses-Total Process	688	0	W	W	*	0	1.0
	Process Heating	W	0	W	W	*	0	1.0
	Process Cooling and Refrigeration	W	0	0	0	0	0	1.0
	Machine Drive	559	0	*	0	0	0	1.0
	Electro-Chemical Processes	W	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	W	0	*	*	W	0	1.0
	Facility Heating, Ventilation, and Air Conditioning[e]	136	0	0	*	0	0	1.0
	Facility Lighting	52	--	--	--	--	--	1.0
	Facility Support	15	0	0	*	0	0	1.0
	Onsite Transportation	W	--	*	0	W	--	1.0
	Conventional Electricity Generation	--	0	0	0	0	0	1.0
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	0	0	0	0	0	1.0
2824	**Organic Fibers, Noncellulosic**							
	RSE Column Factors:	0.9	0.8	1.4	1.3	1.2	0.6	
	TOTAL INPUTS	8,599	1,435	88	W	W	1,577	6.8
	Indirect Uses-Boiler Fuel	113	W	65	31	W	1,577	7.9
	Direct Uses-Total Process	7,187	W	W	W	15	0	8.1
	Process Heating	W	W	W	W	15	0	8.2
	Process Cooling and Refrigeration	902	0	0	W	0	0	8.9
	Machine Drive	4,942	0	W	*	0	0	9.0
	Electro-Chemical Processes	W	--	--	--	--	--	1.6
	Other Process Use	69	0	0	0	0	0	14.3
	Direct Uses-Total Nonprocess	1,258	0	8	W	24	0	4.7
	Facility Heating, Ventilation, and Air Conditioning[e]	622	0	W	W	W	0	7.7
	Facility Lighting	468	--	--	--	--	--	1.3
	Facility Support	W	0	0	*	W	0	10.5
	Onsite Transportation	3	--	W	*	W	--	4.7
	Conventional Electricity Generation	--	0	W	0	0	0	3.7
	Other Nonprocess Use	W	0	W	0	*	0	14.2
	End Use Not Reported	42	0	W	W	W	0	11.2
2861	**Gum and Wood Chemicals**							
	RSE Column Factors:	1.2	1.0	1.2	1.2	1.1	0.6	
	TOTAL INPUTS	211	*	W	4	W	0	6.9
	Indirect Uses-Boiler Fuel	W	0	W	W	W	0	8.7
	Direct Uses-Total Process	150	*	W	W	W	0	7.2
	Process Heating	16	*	W	W	W	0	8.9
	Process Cooling and Refrigeration	4	0	0	W	0	0	17.5
	Machine Drive	129	0	W	0	W	0	7.1
	Electro-Chemical Processes	*	--	--	--	--	--	1.6
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	W	0	W	*	W	0	6.2
	Facility Heating, Ventilation, and Air Conditioning[e]	21	0	0	*	W	0	8.7
	Facility Lighting	12	--	--	--	--	--	1.3
	Facility Support	W	0	0	*	0	0	7.2
	Onsite Transportation	0	--	W	0	W	--	2.8
	Conventional Electricity Generation	--	0	0	0	0	0	0.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	21	0	W	W	W	0	7.6

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2865	**Cyclic Crudes and Intermediates**							
	RSE Column Factors:	1.3	0.8	1.2	1.2	1.2	0.6	
	TOTAL INPUTS	5,607	W	204	95	279	W	19.8
	Indirect Uses-Boiler Fuel	358	W	178	64	Q	W	21.7
	Direct Uses-Total Process	4,656	*	W	25	Q	0	17.3
	Process Heating	674	*	6	25	Q	0	22.2
	Process Cooling and Refrigeration	1,041	0	0	W	0	0	22.5
	Machine Drive	2,861	0	W	W	*	0	16.4
	Electro-Chemical Processes	58	--	--	--	--	--	1.8
	Other Process Use	21	0	*	0	0	0	25.8
	Direct Uses-Total Nonprocess	535	0	5	5	11	0	17.7
	Facility Heating, Ventilation, and Air Conditioning[e]	325	0	0	*	W	0	23.0
	Facility Lighting	176	--	--	--	--	--	1.6
	Facility Support	34	0	*	*	W	0	20.8
	Onsite Transportation	1	--	4	*	11	--	8.8
	Conventional Electricity Generation	--	0	0	4	0	0	4.6
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	58	W	W	2	*	0	31.0
2869	**Industrial Organic Chemicals, nec.**							
	RSE Column Factors:	0.9	0.9	1.3	1.0	1.4	0.7	
	TOTAL INPUTS	44,380	795	317	813	265	4,178	10.2
	Indirect Uses-Boiler Fuel	323	W	166	376	71	W	13.6
	Direct Uses-Total Process	40,730	134	W	277	176	0	12.8
	Process Heating	W	134	W	242	W	0	16.4
	Process Cooling and Refrigeration	4,549	0	W	4	W	0	17.7
	Machine Drive	24,172	0	6	28	0	0	11.4
	Electro-Chemical Processes	11,042	--	--	--	--	--	1.5
	Other Process Use	W	0	*	4	0	0	32.8
	Direct Uses-Total Nonprocess	2,820	W	96	149	12	0	15.1
	Facility Heating, Ventilation, and Air Conditioning[e]	1,265	W	W	3	W	0	12.9
	Facility Lighting	1,183	--	--	--	--	--	1.4
	Facility Support	309	0	Q	W	W	0	10.7
	Onsite Transportation	13	--	W	0	11	--	5.3
	Conventional Electricity Generation	--	0	*	143	W	0	8.5
	Other Nonprocess Use	50	0	W	W	0	0	24.4
	End Use Not Reported	507	W	W	11	7	W	17.5
2873	***Nitrogenous Fertilizers***							
	RSE Column Factors:	1.5	0.4	1.5	1.4	1.7	0.4	
	TOTAL INPUTS	4,505	0	29	260	4	0	6.7
	Indirect Uses-Boiler Fuel	45	0	10	70	0	0	11.2
	Direct Uses-Total Process	4,091	0	6	180	2	0	9.9
	Process Heating	215	0	5	171	*	0	14.4
	Process Cooling and Refrigeration	388	0	0	5	0	0	14.2
	Machine Drive	3,338	0	1	2	1	0	13.6
	Electro-Chemical Processes	150	--	--	--	--	--	1.8
	Other Process Use	*	0	0	2	0	0	23.2
	Direct Uses-Total Nonprocess	344	0	11	2	2	0	10.5
	Facility Heating, Ventilation, and Air Conditioning[e]	158	0	*	*	1	0	14.6
	Facility Lighting	139	--	--	--	--	--	1.6
	Facility Support	47	0	2	*	*	0	19.3
	Onsite Transportation	0	--	9	0	1	--	4.4
	Conventional Electricity Generation	--	0	*	2	*	0	8.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	25	0	3	8	*	0	18.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2874	**Phosphatic Fertilizers**							
	RSE Column Factors:	1.1	0.8	1.1	1.0	1.3	0.8	
	TOTAL INPUTS	4,095	W	117	W	3	W	5.1
	Indirect Uses-Boiler Fuel	W	W	W	2	0	0	6.7
	Direct Uses-Total Process	3,616	W	32	7	W	W	5.3
	Process Heating	W	W	W	7	W	W	6.5
	Process Cooling and Refrigeration	W	0	0	*	0	0	7.4
	Machine Drive	3,368	0	W	*	0	0	7.0
	Electro-Chemical Processes	W	--	--	--	--	--	1.4
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	W	0	60	W	W	0	4.6
	Facility Heating, Ventilation, and Air Conditioning *	120	0	*	W	1	0	5.8
	Facility Lighting	125	--	--	--	--	--	1.3
	Facility Support	60	0	*	0	*	0	6.3
	Onsite Transportation	W	--	W	0	W	--	3.1
	Conventional Electricity Generation	--	0	0	0	0	0	0.9
	Other Nonprocess Use	0	0	W	0	0	0	9.4
	End Use Not Reported	109	0	W	0	0	0	8.1
2895	**Carbon Black**							
	RSE Column Factors:	0.9	1.0	1.3	1.1	1.7	0.5	
	TOTAL INPUTS	571	W	W	17	W	0	10.7
	Indirect Uses-Boiler Fuel	W	0	0	6	0	0	13.7
	Direct Uses-Total Process	491	W	W	10	0	0	12.5
	Process Heating	W	W	0	10	0	0	16.3
	Process Cooling and Refrigeration	W	0	0	0	0	0	15.1
	Machine Drive	484	0	W	*	0	0	12.6
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	W	W	3	W	W	0	13.8
	Facility Heating, Ventilation, and Air Conditioning *	20	0	*	W	0	0	13.6
	Facility Lighting	42	--	--	--	--	--	1.6
	Facility Support	W	W	0	W	0	0	18.3
	Onsite Transportation	0	--	3	*	W	--	6.0
	Conventional Electricity Generation	--	0	0	W	0	0	4.4
	Other Nonprocess Use	0	0	*	0	0	0	20.0
	End Use Not Reported	0	0	0	W	0	0	23.2
29	**PETROLEUM and COAL PRODUCTS**							
	RSE Column Factors:	0.6	0.9	1.6	0.7	1.0	1.5	
	TOTAL INPUTS	49,990	11,378	3,652	W	11,719	W	6.4
	Indirect Uses-Boiler Fuel	817	5,917	372	247	2,415	W	8.7
	Direct Uses-Total Process	43,914	4,559	2,715	455	8,606	273	7.2
	Process Heating	1,136	4,555	2,432	437	8,008	273	8.8
	Process Cooling and Refrigeration	2,651	1	1	W	W	0	21.7
	Machine Drive	40,007	3	W	12	168	0	15.3
	Electro-Chemical Processes	33	--	--	--	--	--	1.5
	Other Process Use	86	0	W	W	W	0	15.1
	Direct Uses-Total Nonprocess	3,460	Q	291	78	205	0	10.9
	Facility Heating, Ventilation, and Air Conditioning *	1,658	W	5	5	W	0	13.6
	Facility Lighting	1,372	--	--	--	--	--	1.3
	Facility Support	401	W	4	1	W	0	15.7
	Onsite Transportation	17	--	271	0	W	--	5.2
	Conventional Electricity Generation	--	0	Q	72	W	0	6.7
	Other Nonprocess Use	12	0	Q	*	W	0	24.0
	End Use Not Reported	1,799	899	274	W	493	0	18.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
2911	**Petroleum Refining**							
	RSE Column Factors:	0.8	0.9	1.3	0.9	1.3	0.8	
	TOTAL INPUTS	47,194	10,891	1,159	734	W	W	5.7
	Indirect Uses-Boiler Fuel	752	5,580	178	236	2,303	W	7.3
	Direct Uses-Total Process	41,749	4,452	896	417	8,321	0	5.3
	Process Heating	835	4,452	834	402	7,724	0	6.9
	Process Cooling and Refrigeration	2,595	0	0	W	W	0	11.8
	Machine Drive	38,210	0	W	10	167	0	7.4
	Electro-Chemical Processes	29	--	--	--	--	--	1.5
	Other Process Use	80	0	W	W	W	0	12.6
	Direct Uses-Total Nonprocess	3,041	W	46	W	W	0	8.8
	Facility Heating, Ventilation, and Air Conditioning[e]	W	0	0	W	W	0	7.2
	Facility Lighting	1,204	--	--	--	--	--	1.3
	Facility Support	326	W	W	1	W	0	12.4
	Onsite Transportation	17	--	44	0	W	--	4.3
	Conventional Electricity Generation	--	0	*	71	W	0	6.1
	Other Nonprocess Use	W	0	W	*	W	0	17.4
	End Use Not Reported	1,652	W	38	W	W	0	15.0
30	**RUBBER and MISC. PLASTICS PRODUCTS**							
	RSE Column Factors:	0.6	1.1	1.6	1.0	1.2	0.7	
	TOTAL INPUTS	43,865	1,600	540	107	824	219	7.2
	Indirect Uses-Boiler Fuel	240	1,303	306	55	29	218	11.6
	Direct Uses-Total Process	33,406	212	Q	25	194	0	10.3
	Process Heating	7,189	117	Q	22	144	0	12.8
	Process Cooling and Refrigeration	3,062	0	*	*	W	0	17.4
	Machine Drive	22,852	96	17	1	47	0	18.9
	Electro-Chemical Processes	98	--	--	--	--	--	1.7
	Other Process Use	206	0	Q	1	W	0	34.1
	Direct Uses-Total Nonprocess	8,082	43	127	21	557	Q	9.2
	Facility Heating, Ventilation, and Air Conditioning[e]	3,713	43	50	20	79	W	14.0
	Facility Lighting	3,363	--	--	--	--	--	1.3
	Facility Support	866	*	2	1	3	W	14.7
	Onsite Transportation	107	--	55	*	473	--	5.6
	Conventional Electricity Generation	--	0	Q	1	0	0	7.7
	Other Nonprocess Use	33	*	Q	*	Q	0	38.9
	End Use Not Reported	2,137	42	31	6	44	0	20.9
3011	**Tires and Inner Tubes**							
	RSE Column Factors:	0.8	0.8	1.3	1.2	1.2	1.0	
	TOTAL INPUTS	4,664	720	115	22	95	81	10.3
	Indirect Uses-Boiler Fuel	38	W	W	20	*	80	13.7
	Direct Uses-Total Process	3,409	W	W	*	6	0	11.0
	Process Heating	44	W	0	*	3	0	18.2
	Process Cooling and Refrigeration	215	0	0	0	0	0	11.5
	Machine Drive	3,150	0	W	*	3	0	10.1
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	*	0	0	8.4
	Direct Uses-Total Nonprocess	1,033	W	W	1	W	Q	9.4
	Facility Heating, Ventilation, and Air Conditioning[e]	462	W	0	1	W	W	8.2
	Facility Lighting	478	--	--	--	--	--	1.3
	Facility Support	62	0	W	*	0	W	11.7
	Onsite Transportation	32	--	W	0	86	--	3.6
	Conventional Electricity Generation	--	0	W	0	0	0	3.2
	Other Nonprocess Use	0	0	W	*	0	0	7.1
	End Use Not Reported	183	W	W	1	W	0	11.4

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
308	**Miscellaneous Plastics Products, nec.**							
	RSE Column Factors:	0.7	1.1	1.4	1.0	1.3	0.7	
	TOTAL INPUTS	34,071	497	262	62	632	82	10.9
	Indirect Uses-Boiler Fuel	143	285	110	24	12	82	18.1
	Direct Uses-Total Process	26,326	168	W	18	161	0	12.1
	Process Heating	6,292	Q	Q	17	120	0	10.7
	Process Cooling and Refrigeration	2,581	0	*	*	W	0	20.0
	Machine Drive	17,163	95	W	1	38	0	20.5
	Electro-Chemical Processes	92	--	--	--	--	--	1.8
	Other Process Use	198	0	*	1	W	0	34.9
	Direct Uses-Total Nonprocess	5,893	W	W	16	W	0	11.9
	Facility Heating, Ventilation, and Air Conditioning[e]	2,712	W	25	14	W	0	15.6
	Facility Lighting	2,399	--	--	--	--	--	1.3
	Facility Support	685	0	W	*	2	0	16.7
	Onsite Transportation	64	--	W	*	342	--	7.2
	Conventional Electricity Generation	--	0	W	1	0	0	7.2
	Other Nonprocess Use	33	0	W	*	Q	0	38.5
	End Use Not Reported	1,708	W	24	4	W	0	27.9
31	**LEATHER and LEATHER PRODUCTS**							
	RSE Column Factors:	1.0	0.7	1.8	0.9	1.7	0.5	
	TOTAL INPUTS	834	250	W	W	W	0	15.0
	Indirect Uses-Boiler Fuel	13	246	20	2	W	0	25.2
	Direct Uses-Total Process	539	0	18	1	11	0	18.7
	Process Heating	28	0	Q	1	11	0	23.0
	Process Cooling and Refrigeration	20	0	0	*	0	0	34.1
	Machine Drive	490	0	0	*	*	0	18.1
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	*	0	Q	0	0	0	0.0
	Direct Uses-Total Nonprocess	206	Q	5	W	14	0	17.2
	Facility Heating, Ventilation, and Air Conditioning[e]	99	Q	5	W	8	0	20.9
	Facility Lighting	92	--	--	--	--	--	1.6
	Facility Support	14	0	*	1	*	0	26.4
	Onsite Transportation	*	--	*	0	6	--	5.2
	Conventional Electricity Generation	--	0	0	0	0	0	1.0
	Other Nonprocess Use	Q	0	0	0	0	0	0.0
	End Use Not Reported	76	Q	W	W	Q	0	40.0
32	**STONE, CLAY and GLASS PRODUCTS**							
	RSE Column Factors:	0.7	1.0	1.4	0.8	1.6	0.8	
	TOTAL INPUTS	36,386	1,187	3,917	419	1,057	12,423	6.8
	Indirect Uses-Boiler Fuel	186	112	205	19	37	11	24.1
	Direct Uses-Total Process	30,875	1,069	1,453	369	608	11,933	7.7
	Process Heating	8,478	1,064	782	358	553	11,929	8.5
	Process Cooling and Refrigeration	848	0	*	1	W	0	21.6
	Machine Drive	21,457	Q	659	8	54	4	19.1
	Electro-Chemical Processes	82	--	--	--	--	--	1.9
	Other Process Use	10	0	11	1	W	0	19.9
	Direct Uses-Total Nonprocess	4,210	Q	1,951	21	362	Q	7.9
	Facility Heating, Ventilation, and Air Conditioning[e]	1,680	Q	55	18	73	Q	11.7
	Facility Lighting	1,977	--	--	--	--	--	1.3
	Facility Support	476	0	Q	2	5	0	11.3
	Onsite Transportation	47	--	1,759	*	284	--	6.3
	Conventional Electricity Generation	--	0	Q	1	*	0	10.6
	Other Nonprocess Use	29	0	Q	*	*	0	33.4
	End Use Not Reported	1,115	Q	307	10	50	473	23.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
3211	**Flat Glass**							
	RSE Column Factors:	0.9	1.1	1.5	0.9	1.5	0.5	
	TOTAL INPUTS	1,469	244	11	44	20	0	15.0
	Indirect Uses-Boiler Fuel	8	0	*	1	0	0	30.8
	Direct Uses-Total Process	1,259	244	6	41	10	0	18.6
	Process Heating	593	244	5	41	9	0	19.4
	Process Cooling and Refrigeration	74	0	*	*	0	0	26.7
	Machine Drive	591	0	*	*	1	0	27.0
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	*	0	*	0	23.8
	Direct Uses-Total Nonprocess	203	0	5	1	10	0	12.1
	Facility Heating, Ventilation, and Air Conditioning[e]	67	0	0	1	*	0	20.0
	Facility Lighting	96	--	--	--	--	--	1.5
	Facility Support	19	0	*	*	*	0	24.0
	Onsite Transportation	15	--	4	0	10	--	5.0
	Conventional Electricity Generation	--	0	1	0	0	0	3.9
	Other Nonprocess Use	5	0	0	0	0	0	47.7
	End Use Not Reported	*	0	0	0	1	0	33.7
3221	**Glass Containers**							
	RSE Column Factors:	1.2	0.9	1.7	0.8	1.4	0.5	
	TOTAL INPUTS	4,268	336	75	64	98	0	5.8
	Indirect Uses-Boiler Fuel	W	0	W	*	0	0	12.3
	Direct Uses-Total Process	3,772	336	W	60	51	0	6.5
	Process Heating	1,491	336	W	60	W	0	6.8
	Process Cooling and Refrigeration	W	0	0	0	0	0	8.3
	Machine Drive	2,233	0	*	*	W	0	11.1
	Electro-Chemical Processes	W	--	--	--	--	--	1.7
	Other Process Use	W	0	0	0	0	0	19.8
	Direct Uses-Total Nonprocess	W	0	W	3	W	0	5.4
	Facility Heating, Ventilation, and Air Conditioning[e]	144	0	W	2	W	0	8.9
	Facility Lighting	303	--	--	--	--	--	1.3
	Facility Support	W	0	*	1	0	0	7.7
	Onsite Transportation	W	--	W	0	44	--	4.4
	Conventional Electricity Generation	--	0	0	0	0	0	0.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	0	0	*	0	W	0	14.4
3229	**Pressed and Blown Glass, nec.**							
	RSE Column Factors:	1.2	1.0	1.5	0.9	1.3	0.5	
	TOTAL INPUTS	3,235	W	57	49	W	0	8.5
	Indirect Uses-Boiler Fuel	4	W	W	2	*	0	14.7
	Direct Uses-Total Process	2,685	W	W	45	19	0	10.2
	Process Heating	1,041	W	W	43	W	0	11.1
	Process Cooling and Refrigeration	231	0	0	0	0	0	5.8
	Machine Drive	1,390	0	*	2	W	0	10.3
	Electro-Chemical Processes	23	--	--	--	--	--	1.7
	Other Process Use	0	0	W	0	*	0	13.6
	Direct Uses-Total Nonprocess	546	0	13	2	W	0	6.5
	Facility Heating, Ventilation, and Air Conditioning[e]	253	0	0	2	W	0	7.8
	Facility Lighting	241	--	--	--	--	--	1.3
	Facility Support	W	0	W	*	0	0	11.8
	Onsite Transportation	W	--	W	*	20	--	4.2
	Conventional Electricity Generation	--	0	W	0	0	0	3.4
	Other Nonprocess Use	W	0	W	0	0	0	15.1
	End Use Not Reported	0	0	*	0	*	0	13.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
3241	**Cement, Hydraulic**							
	RSE Column Factors:	0.8	1.0	1.4	1.2	1.3	0.6	
	TOTAL INPUTS	11,057	158	820	24	9	9,174	11.7
	Indirect Uses-Boiler Fuel	17	0	13	1	0	0	33.5
	Direct Uses-Total Process	10,024	158	357	21	3	8,885	15.1
	Process Heating	744	158	317	21	2	8,881	18.5
	Process Cooling and Refrigeration	W	0	0	0	0	0	23.7
	Machine Drive	9,147	0	39	*	1	4	22.2
	Electro-Chemical Processes	0	--	--	--	--	--	0.9
	Other Process Use	W	0	0	0	0	0	55.2
	Direct Uses-Total Nonprocess	495	0	389	1	5	0	10.2
	Facility Heating, Ventilation, and Air Conditioning[e]	201	0	W	1	2	0	16.0
	Facility Lighting	225	--	--	--	--	--	1.4
	Facility Support	68	0	W	*	*	0	21.9
	Onsite Transportation	1	--	381	0	3	--	5.7
	Conventional Electricity Generation	--	0	W	*	0	0	11.3
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	520	0	62	1	1	290	28.1
3274	**Lime**							
	RSE Column Factors:	1.1	1.2	0.9	0.9	1.5	0.6	
	TOTAL INPUTS	1,151	105	251	12	5	2,980	18.3
	Indirect Uses-Boiler Fuel	0	0	*	0	0	0	53.4
	Direct Uses-Total Process	1,003	Q	88	11	3	2,809	20.9
	Process Heating	307	Q	42	11	3	2,809	22.4
	Process Cooling and Refrigeration	2	0	0	0	0	0	29.2
	Machine Drive	694	0	45	*	*	0	27.9
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	93	0	148	*	2	0	21.5
	Facility Heating, Ventilation, and Air Conditioning[e]	47	0	2	*	1	0	31.9
	Facility Lighting	33	--	--	--	--	--	1.6
	Facility Support	14	0	0	*	*	0	40.9
	Onsite Transportation	0	--	145	0	1	--	4.4
	Conventional Electricity Generation	--	0	0	0	0	0	0.9
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	55	Q	15	1	*	171	34.9
3296	**Mineral Wool**							
	RSE Column Factors:	1.0	0.8	2.0	0.8	1.3	0.5	
	TOTAL INPUTS	3,401	W	9	36	W	0	9.9
	Indirect Uses-Boiler Fuel	13	W	*	1	*	0	19.1
	Direct Uses-Total Process	3,143	0	W	34	32	0	8.7
	Process Heating	1,939	0	W	W	32	0	9.2
	Process Cooling and Refrigeration	20	0	0	0	0	0	12.5
	Machine Drive	1,184	0	*	0	0	0	9.7
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	W	W	0	0	23.9
	Direct Uses-Total Nonprocess	246	0	W	1	W	0	8.7
	Facility Heating, Ventilation, and Air Conditioning[e]	100	0	W	1	W	0	13.4
	Facility Lighting	116	--	--	--	--	--	1.5
	Facility Support	28	0	*	*	0	0	12.3
	Onsite Transportation	1	--	W	0	37	--	4.8
	Conventional Electricity Generation	--	0	W	0	0	0	3.4
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	0	0	*	0	*	0	11.6

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
33	**PRIMARY METAL INDUSTRIES**							
	RSE Column Factors:	0.5	1.4	1.1	0.8	1.5	1.0	
	TOTAL INPUTS	152,740	6,870	2,126	778	1,472	2,327	6.8
	Indirect Uses-Boiler Fuel	402	4,781	175	92	36	1,926	10.7
	Direct Uses-Total Process	138,639	2,054	W	609	772	W	9.6
	Process Heating	36,637	2,051	547	587	723	W	11.5
	Process Cooling and Refrigeration	1,265	0	0	*	0	0	19.1
	Machine Drive	44,828	3	W	3	42	0	11.6
	Electro-Chemical Processes	55,188	--	--	--	--	--	1.0
	Other Process Use	721	0	3	19	7	0	22.0
	Direct Uses-Total Nonprocess	11,686	35	1,271	56	612	W	5.4
	Facility Heating, Ventilation, and Air Conditioning[e]	4,702	W	93	46	89	*	13.4
	Facility Lighting	5,370	--	--	--	--	--	1.2
	Facility Support	1,289	2	4	W	12	0	15.2
	Onsite Transportation	160	--	W	*	507	--	5.6
	Conventional Electricity Generation	--	0	W	W	3	W	3.6
	Other Nonprocess Use	164	W	W	1	*	0	25.0
	End Use Not Reported	2,013	0	W	21	52	W	19.4
331	**Blast Furnace and Basic Steel Products**							
	RSE Column Factors:	0.7	1.0	1.1	0.7	1.4	1.4	
	TOTAL INPUTS	59,978	6,680	W	503	W	1,771	10.8
	Indirect Uses-Boiler Fuel	233	4,689	96	65	W	1,532	13.4
	Direct Uses-Total Process	53,961	1,983	124	405	109	W	13.8
	Process Heating	23,117	1,980	88	385	W	W	15.7
	Process Cooling and Refrigeration	561	0	0	*	0	0	23.8
	Machine Drive	28,253	3	33	2	6	0	16.4
	Electro-Chemical Processes	1,510	--	--	--	--	--	1.5
	Other Process Use	519	0	3	18	W	0	26.5
	Direct Uses-Total Nonprocess	5,330	8	642	28	198	*	14.1
	Facility Heating, Ventilation, and Air Conditioning[e]	1,934	W	49	22	11	*	16.6
	Facility Lighting	2,527	--	--	--	--	--	1.3
	Facility Support	640	*	*	4	7	0	17.2
	Onsite Transportation	84	--	593	*	Q	--	3.2
	Conventional Electricity Generation	--	0	*	*	*	0	13.9
	Other Nonprocess Use	145	W	0	1	*	0	26.4
	End Use Not Reported	454	0	W	4	7	W	20.4
3312	**Blast Furnaces and Steel Mills**							
	RSE Column Factors:	0.8	1.1	1.0	0.8	1.1	1.1	
	TOTAL INPUTS	50,228	6,659	W	462	W	1,598	8.1
	Indirect Uses-Boiler Fuel	176	4,669	91	58	1	1,520	13.9
	Direct Uses-Total Process	45,536	1,983	110	377	32	W	10.0
	Process Heating	18,418	1,980	88	357	W	W	10.9
	Process Cooling and Refrigeration	470	0	0	*	0	0	20.6
	Machine Drive	24,853	3	W	2	1	0	14.1
	Electro-Chemical Processes	1,284	--	--	--	--	--	1.6
	Other Process Use	512	0	W	18	W	0	25.7
	Direct Uses-Total Nonprocess	4,411	8	595	23	48	0	8.8
	Facility Heating, Ventilation, and Air Conditioning[e]	1,511	W	31	17	11	0	14.1
	Facility Lighting	2,113	--	--	--	--	--	1.3
	Facility Support	578	0	0	4	5	0	14.6
	Onsite Transportation	76	--	564	0	32	--	3.8
	Conventional Electricity Generation	--	0	0	*	*	0	10.1
	Other Nonprocess Use	133	W	0	1	*	0	24.7
	End Use Not Reported	105	0	W	3	W	W	23.9

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
3313	**Electrometallurgical Products**							
	RSE Column Factors:	2.7	0.4	1.5	1.2	1.4	0.4	
	TOTAL INPUTS	4,796	0	21	2	5	Q	19.4
	Indirect Uses-Boiler Fuel	0	0	0	*	0	0	0.0
	Direct Uses-Total Process	4,500	0	Q	2	Q	Q	17.7
	Process Heating	4,054	0	0	2	Q	Q	18.5
	Process Cooling and Refrigeration	Q	0	0	0	0	0	0.0
	Machine Drive	400	0	Q	0	*	0	15.0
	Electro-Chemical Processes	Q	--	--	--	--	--	1.2
	Other Process Use	Q	0	0	*	0	0	0.0
	Direct Uses-Total Nonprocess	161	0	12	*	4	0	20.4
	Facility Heating, Ventilation, and Air Conditioning [e]	107	0	0	*	*	0	18.3
	Facility Lighting	49	--	--	--	--	--	1.8
	Facility Support	5	0	0	*	0	0	16.8
	Onsite Transportation	0	--	12	0	4	--	8.4
	Conventional Electricity Generation	--	0	0	0	0	0	0.4
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	Q	0	0	*	*	0	0.0
3321	**Gray and Ductile Iron Foundries**							
	RSE Column Factors:	1.1	0.9	1.4	0.7	1.2	0.9	
	TOTAL INPUTS	8,823	Q	113	32	141	5	11.3
	Indirect Uses-Boiler Fuel	38	0	Q	2	W	0	31.8
	Direct Uses-Total Process	7,161	*	28	20	56	5	16.9
	Process Heating	4,295	*	18	20	W	5	18.2
	Process Cooling and Refrigeration	35	0	0	0	0	0	16.6
	Machine Drive	2,820	*	9	*	W	0	26.9
	Electro-Chemical Processes	8	--	--	--	--	--	1.8
	Other Process Use	Q	0	*	*	W	0	35.2
	Direct Uses-Total Nonprocess	1,286	Q	W	9	68	0	10.5
	Facility Heating, Ventilation, and Air Conditioning [e]	595	Q	4	8	15	0	19.5
	Facility Lighting	542	--	--	--	--	--	1.5
	Facility Support	W	0	1	*	1	0	20.9
	Onsite Transportation	W	--	67	0	52	--	5.2
	Conventional Electricity Generation	--	0	W	0	0	0	5.2
	Other Nonprocess Use	17	0	0	0	*	0	34.2
	End Use Not Reported	339	0	W	Q	W	0	34.6
3331	**Primary Copper**							
	RSE Column Factors:	1.0	1.0	1.0	1.0	1.0	1.0	
	TOTAL INPUTS	2,207	W	W	21	W	W	1.0
	Indirect Uses-Boiler Fuel	0	0	0	8	0	W	1.0
	Direct Uses-Total Process	1,944	W	W	11	0	W	1.0
	Process Heating	207	W	W	11	0	W	1.0
	Process Cooling and Refrigeration	W	0	0	0	0	0	1.0
	Machine Drive	1,110	0	W	0	0	0	1.0
	Electro-Chemical Processes	391	--	--	--	--	--	1.0
	Other Process Use	W	0	0	*	0	0	1.0
	Direct Uses-Total Nonprocess	263	0	W	3	W	W	1.0
	Facility Heating, Ventilation, and Air Conditioning [e]	112	0	0	W	0	0	1.0
	Facility Lighting	108	--	--	--	--	--	1.0
	Facility Support	43	0	0	*	0	0	1.0
	Onsite Transportation	0	--	184	0	W	--	1.0
	Conventional Electricity Generation	--	0	W	W	0	W	1.0
	Other Nonprocess Use	0	0	W	0	0	0	1.0
	End Use Not Reported	*	0	W	0	0	0	1.0

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
3334	**Primary Aluminum**							
	RSE Column Factors:	0.9	0.9	1.0	1.5	0.9	0.9	
	TOTAL INPUTS	W	W	125	16	W	0	1.6
	Indirect Uses-Boiler Fuel	W	W	W	W	W	0	1.0
	Direct Uses-Total Process	52,260	0	W	14	27	0	1.5
	Process Heating	207	0	W	14	W	0	1.5
	Process Cooling and Refrigeration	W	0	0	0	0	0	1.1
	Machine Drive	1,355	0	W	*	W	0	1.3
	Electro-Chemical Processes	50,614	--	--	--	--	--	1.0
	Other Process Use	W	0	0	0	0	0	1.1
	Direct Uses-Total Nonprocess	W	0	98	1	W	0	1.1
	Facility Heating, Ventilation, and Air Conditioning *	595	0	0	*	1	0	0.9
	Facility Lighting	569	--	--	--	--	--	1.0
	Facility Support	W	0	0	*	*	0	0.9
	Onsite Transportation	W	--	98	0	W	--	1.2
	Conventional Electricity Generation	--	0	0	0	0	0	1.1
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	0	0	W	*	0	0.9
3339	**Primary Nonferrous Metals, nec.**							
	RSE Column Factors:	1.4	0.7	1.2	1.1	1.2	0.7	
	TOTAL INPUTS	5,073	W	W	12	17	361	14.6
	Indirect Uses-Boiler Fuel	3	W	10	W	*	361	23.6
	Direct Uses-Total Process	4,472	0	21	9	9	0	11.5
	Process Heating	1,689	0	W	9	9	0	13.4
	Process Cooling and Refrigeration	67	0	0	0	0	0	13.5
	Machine Drive	594	0	W	*	*	0	14.8
	Electro-Chemical Processes	2,122	--	--	--	--	--	1.5
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	217	0	W	*	8	0	8.9
	Facility Heating, Ventilation, and Air Conditioning *	112	0	0	*	W	0	12.2
	Facility Lighting	88	--	--	--	--	--	1.4
	Facility Support	14	0	*	*	W	0	16.9
	Onsite Transportation	3	--	W	*	6	--	7.0
	Conventional Electricity Generation	--	0	0	0	0	0	0.7
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	381	0	1	W	*	0	20.4
3353	**Aluminum Sheet, Plate, and Foil**							
	RSE Column Factors:	1.2	0.6	1.3	0.8	1.2	1.0	
	TOTAL INPUTS	4,835	0	W	51	54	W	5.1
	Indirect Uses-Boiler Fuel	W	0	0	W	W	W	10.7
	Direct Uses-Total Process	4,366	0	10	45	11	0	5.0
	Process Heating	636	0	10	45	11	0	5.8
	Process Cooling and Refrigeration	W	0	0	0	0	0	4.9
	Machine Drive	3,695	0	0	0	0	0	3.2
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	W	0	0	*	0	0	13.3
	Direct Uses-Total Nonprocess	W	0	W	3	W	0	4.4
	Facility Heating, Ventilation, and Air Conditioning *	202	0	W	3	W	0	7.1
	Facility Lighting	185	--	--	--	--	--	1.3
	Facility Support	46	0	*	*	*	0	8.0
	Onsite Transportation	W	--	51	0	W	--	3.0
	Conventional Electricity Generation	--	0	0	0	0	0	0.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	20	0	W	W	W	0	10.7

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
34	**FABRICATED METAL PRODUCTS**							
	RSE Column Factors:	0.9	0.8	1.6	0.9	1.5	0.6	
	TOTAL INPUTS	34,387	478	747	213	1,334	W	12.3
	Indirect Uses-Boiler Fuel	379	312	188	38	47	W	20.6
	Direct Uses-Total Process	23,849	W	W	115	328	W	10.3
	Process Heating	4,314	Q	191	111	171	W	12.1
	Process Cooling and Refrigeration	754	0	0	*	W	0	23.1
	Machine Drive	16,952	W	W	3	105	0	16.2
	Electro-Chemical Processes	1,550	--	--	--	--	--	1.6
	Other Process Use	278	0	Q	1	W	0	27.5
	Direct Uses-Total Nonprocess	8,122	W	251	48	835	W	9.3
	Facility Heating, Ventilation, and Air Conditioning[e]	3,475	W	143	45	126	W	11.6
	Facility Lighting	3,775	--	--	--	--	--	1.3
	Facility Support	725	0	4	2	5	0	16.4
	Onsite Transportation	117	--	97	*	701	--	5.6
	Conventional Electricity Generation	--	0	Q	*	0	0	1.1
	Other Nonprocess Use	30	0	*	*	2	0	29.4
	End Use Not Reported	2,037	5	W	13	124	0	24.1
35	**INDUSTRIAL MACHINERY and EQUIPMENT**							
	RSE Column Factors:	0.6	1.1	1.3	0.7	1.2	1.4	
	TOTAL INPUTS	32,203	W	672	107	885	484	8.5
	Indirect Uses-Boiler Fuel	183	319	110	21	27	424	15.7
	Direct Uses-Total Process	18,415	W	W	38	287	43	14.8
	Process Heating	3,114	Q	W	35	186	40	17.4
	Process Cooling and Refrigeration	897	0	1	*	0	3	27.8
	Machine Drive	14,137	Q	117	2	76	0	15.5
	Electro-Chemical Processes	108	--	--	--	--	--	1.5
	Other Process Use	159	W	157	1	25	0	30.6
	Direct Uses-Total Nonprocess	11,663	69	238	40	510	17	13.4
	Facility Heating, Ventilation, and Air Conditioning[e]	5,591	68	97	39	185	17	16.6
	Facility Lighting	4,613	--	--	--	--	--	1.3
	Facility Support	1,274	0	5	2	15	0	24.2
	Onsite Transportation	78	--	99	*	W	--	5.0
	Conventional Electricity Generation	--	0	16	*	W	0	12.5
	Other Nonprocess Use	107	1	22	*	Q	0	41.2
	End Use Not Reported	1,942	Q	W	8	61	0	21.9
357	**Computer and Office Equipment**							
	RSE Column Factors:	1.3	0.7	2.0	1.2	1.4	0.3	
	TOTAL INPUTS	4,180	W	23	5	W	0	18.5
	Indirect Uses-Boiler Fuel	23	W	13	3	*	0	26.3
	Direct Uses-Total Process	1,499	0	0	*	0	0	20.4
	Process Heating	Q	0	0	*	0	0	34.0
	Process Cooling and Refrigeration	254	0	0	*	0	0	22.2
	Machine Drive	849	0	0	*	0	0	21.6
	Electro-Chemical Processes	14	--	--	--	--	--	1.8
	Other Process Use	102	0	0	*	0	0	18.6
	Direct Uses-Total Nonprocess	2,459	0	10	1	W	0	14.8
	Facility Heating, Ventilation, and Air Conditioning[e]	1,267	0	*	1	Q	0	17.3
	Facility Lighting	728	--	--	--	--	--	1.5
	Facility Support	385	0	*	*	*	0	19.9
	Onsite Transportation	5	--	*	0	W	--	9.1
	Conventional Electricity Generation	--	0	8	0	0	0	4.1
	Other Nonprocess Use	74	0	Q	*	Q	0	24.8
	End Use Not Reported	199	0	0	*	*	0	34.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
36	**ELECTRONIC and OTHER ELECTRIC EQUIPMENT**							
	RSE Column Factors:	0.7	1.1	1.5	0.7	1.3	0.9	
	TOTAL INPUTS	33,219	415	290	84	622	W	10.6
	Indirect Uses-Boiler Fuel	214	296	174	29	23	W	15.6
	Direct Uses-Total Process	18,699	44	W	34	323	W	17.2
	Process Heating	5,495	Q	14	32	280	W	17.8
	Process Cooling and Refrigeration	1,914	17	*	*	0	0	25.8
	Machine Drive	9,691	0	W	1	11	0	21.2
	Electro-Chemical Processes	1,344	--	--	--	--	--	1.5
	Other Process Use	255	0	W	1	Q	0	31.0
	Direct Uses-Total Nonprocess	13,121	75	66	19	261	0	12.6
	Facility Heating, Ventilation, and Air Conditioning[e]	7,275	75	47	18	64	0	14.7
	Facility Lighting	4,420	--	--	--	--	--	1.3
	Facility Support	1,307	0	*	1	38	0	19.1
	Onsite Transportation	80	--	W	*	159	--	4.9
	Conventional Electricity Generation	--	0	W	*	W	0	1.5
	Other Nonprocess Use	38	0	*	*	W	0	27.8
	End Use Not Reported	1,185	*	W	2	15	0	27.7
37	**TRANSPORTATION EQUIPMENT**							
	RSE Column Factors:	0.6	1.2	1.3	0.7	1.4	1.2	
	TOTAL INPUTS	39,517	1,781	1,123	150	W	1,245	9.6
	Indirect Uses-Boiler Fuel	512	910	430	50	W	1,225	14.5
	Direct Uses-Total Process	22,530	152	W	61	217	12	16.0
	Process Heating	3,522	152	W	59	175	12	18.3
	Process Cooling and Refrigeration	1,628	0	*	*	0	0	28.9
	Machine Drive	15,663	0	99	1	27	0	19.5
	Electro-Chemical Processes	610	--	--	--	--	--	1.5
	Other Process Use	1,108	0	150	1	14	0	24.3
	Direct Uses-Total Nonprocess	15,243	719	398	33	629	8	14.5
	Facility Heating, Ventilation, and Air Conditioning[e]	7,058	261	75	30	191	8	18.8
	Facility Lighting	6,425	--	--	--	--	--	1.3
	Facility Support	1,348	W	23	2	5	0	19.7
	Onsite Transportation	161	--	167	*	431	--	5.0
	Conventional Electricity Generation	--	W	114	1	*	0	16.1
	Other Nonprocess Use	252	126	18	*	2	0	31.6
	End Use Not Reported	1,231	0	W	6	43	0	22.6
3711	**Motor Vehicles and Car Bodies**							
	RSE Column Factors:	1.2	0.6	2.0	0.8	1.8	0.5	
	TOTAL INPUTS	8,846	300	81	51	88	571	20.4
	Indirect Uses-Boiler Fuel	368	300	17	13	6	571	28.3
	Direct Uses-Total Process	5,569	0	Q	28	9	0	14.7
	Process Heating	585	0	0	28	9	0	17.6
	Process Cooling and Refrigeration	568	0	0	*	0	0	14.1
	Machine Drive	3,786	0	Q	*	0	0	19.4
	Electro-Chemical Processes	224	--	--	--	--	--	1.7
	Other Process Use	407	0	0	0	0	0	16.6
	Direct Uses-Total Nonprocess	2,598	0	29	9	66	0	14.8
	Facility Heating, Ventilation, and Air Conditioning[e]	1,414	0	Q	8	30	0	16.3
	Facility Lighting	940	--	--	--	--	--	1.5
	Facility Support	182	0	*	1	2	0	21.3
	Onsite Transportation	58	--	27	0	33	--	7.6
	Conventional Electricity Generation	--	0	1	0	0	0	3.9
	Other Nonprocess Use	5	0	*	0	0	0	39.7
	End Use Not Reported	311	0	*	0	7	0	24.5

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
3714	**Motor Vehicle Parts and Accessories**							
	RSE Column Factors:	0.8	0.8	1.4	0.7	1.6	1.1	
	TOTAL INPUTS	13,606	W	166	53	W	444	17.2
	Indirect Uses-Boiler Fuel	88	W	119	15	W	425	21.5
	Direct Uses-Total Process	9,145	0	W	24	75	12	16.4
	Process Heating	1,487	0	W	23	43	12	18.8
	Process Cooling and Refrigeration	384	0	0	*	0	0	27.7
	Machine Drive	6,751	0	1	*	23	0	15.7
	Electro-Chemical Processes	87	--	--	--	--	--	1.6
	Other Process Use	436	0	15	*	9	0	35.2
	Direct Uses-Total Nonprocess	4,173	0	25	12	288	8	19.9
	Facility Heating, Ventilation, and Air Conditioning[e]	1,934	0	Q	11	20	8	20.1
	Facility Lighting	1,696	--	--	--	--	--	1.4
	Facility Support	371	0	1	1	*	0	19.1
	Onsite Transportation	54	--	9	*	266	--	5.7
	Conventional Electricity Generation	--	0	*	0	*	0	5.8
	Other Nonprocess Use	117	0	*	0	Q	0	39.1
	End Use Not Reported	201	0	W	2	10	0	32.1
38	**INSTRUMENTS and RELATED PRODUCTS**							
	RSE Column Factors:	0.7	0.9	1.2	0.9	1.7	0.9	
	TOTAL INPUTS	14,817	589	238	W	W	1,065	14.6
	Indirect Uses-Boiler Fuel	329	532	120	13	W	1,061	21.0
	Direct Uses-Total Process	6,030	Q	Q	5	13	0	14.3
	Process Heating	910	Q	Q	4	12	0	15.0
	Process Cooling and Refrigeration	1,047	0	0	*	0	0	24.4
	Machine Drive	3,733	0	*	*	Q	0	16.0
	Electro-Chemical Processes	113	--	--	--	--	--	1.5
	Other Process Use	227	0	*	*	*	0	35.3
	Direct Uses-Total Nonprocess	6,996	44	91	9	61	0	17.9
	Facility Heating, Ventilation, and Air Conditioning[e]	3,445	44	61	8	51	0	19.6
	Facility Lighting	2,570	--	--	--	--	--	1.3
	Facility Support	761	0	28	1	2	0	17.2
	Onsite Transportation	38	--	1	*	8	--	6.0
	Conventional Electricity Generation	--	0	1	*	*	0	10.4
	Other Nonprocess Use	181	0	*	*	*	0	21.5
	End Use Not Reported	Q	0	19	W	3	Q	21.3
3841	**Surgical and Medical Instruments**							
	RSE Column Factors:	0.9	0.9	1.8	1.0	1.6	0.5	
	TOTAL INPUTS	1,347	16	13	2	30	0	19.4
	Indirect Uses-Boiler Fuel	13	16	11	1	*	0	23.2
	Direct Uses-Total Process	503	0	*	*	12	0	18.7
	Process Heating	72	0	*	*	12	0	22.5
	Process Cooling and Refrigeration	79	0	0	*	0	0	11.4
	Machine Drive	335	0	*	*	*	0	21.9
	Electro-Chemical Processes	7	--	--	--	--	--	1.8
	Other Process Use	10	0	*	*	0	0	31.9
	Direct Uses-Total Nonprocess	733	0	2	1	Q	0	13.8
	Facility Heating, Ventilation, and Air Conditioning[e]	408	0	1	1	Q	0	14.6
	Facility Lighting	226	--	--	--	--	--	1.4
	Facility Support	63	0	*	*	*	0	17.7
	Onsite Transportation	Q	--	*	0	Q	--	3.4
	Conventional Electricity Generation	--	0	*	0	*	0	7.7
	Other Nonprocess Use	34	0	0	0	*	0	31.6
	End Use Not Reported	Q	0	*	*	*	0	28.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b] (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil and Diesel Fuel[c] (1000 bbl)	Natural Gas[d] (billion cu ft)	LPG (1000 bbl)	Coal (excluding Coal Coke and Breeze) (1000 short tons)	RSE Row Factors
39	**MISC. MANUFACTURING INDUSTRIES**							
	RSE Column Factors:	1.2	0.6	1.6	0.9	1.6	0.7	
	TOTAL INPUTS	5,576	142	209	19	W	37	19.6
	Indirect Uses-Boiler Fuel	34	106	66	5	W	37	30.0
	Direct Uses-Total Process	3,025	Q	W	7	34	0	12.9
	Process Heating	626	Q	W	6	28	0	14.8
	Process Cooling and Refrigeration	279	0	0	W	0	0	11.3
	Machine Drive	2,058	0	*	*	4	0	18.5
	Electro-Chemical Processes	47	--	--	--	--	--	1.8
	Other Process Use	16	0	2	W	2	0	33.5
	Direct Uses-Total Nonprocess	2,108	Q	Q	5	64	0	12.9
	Facility Heating, Ventilation, and Air Conditioning[e]	937	Q	33	5	Q	0	14.6
	Facility Lighting	896	--	--	--	--	--	1.6
	Facility Support	208	0	*	*	3	0	20.1
	Onsite Transportation	15	--	Q	*	41	--	5.2
	Conventional Electricity Generation	--	0	*	*	0	0	5.0
	Other Nonprocess Use	52	0	0	*	0	0	33.0
	End Use Not Reported	408	Q	W	1	Q	0	25.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Net Demand for Electricity" is the sum of purchases, transfers in, and total onsite electricity generation, minus sales and transfers offsite. It is the total amount of electricity used by establishments. "Net Demand for Electricity" is not directly comparable with "Net Electricity" which specifically excludes electricity generated onsite by combustible energy sources.

[c] Includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] Excludes steam and hot water.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

-- Estimation of energy input is not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
20-39	**ALL INDUSTRY GROUPS**							
	RSE Column Factors:	0.5	1.4	1.4	0.8	1.2	1.2	
	TOTAL INPUTS	3,132	441	152	6,141	99	1,198	2.4
	Indirect Uses-Boiler Fuel	43	313	42	2,396	15	875	3.7
	Direct Uses-Total Process	2,489	106	51	2,872	54	302	3.8
	Process Heating	295	103	29	2,702	49	299	4.1
	Process Cooling and Refrigeration	159	*	*	21	2	*	17.5
	Machine Drive	1,687	3	18	95	3	3	7.7
	Electro-Chemical Processes	328	--	--	--	--	--	1.1
	Other Process Use	20	*	4	53	1	*	16.2
	Direct Uses-Total Nonprocess	494	14	49	726	25	8	5.2
	Facility Heating, Ventilation, and Air Conditioning[e]	233	5	7	351	5	3	6.5
	Facility Lighting	200	--	--	--	--	--	1.1
	Facility Support	51	3	1	30	1	*	12.1
	Onsite Transportation	4	--	35	1	19	--	3.9
	Conventional Electricity Generation	--	5	4	335	1	6	8.3
	Other Nonprocess Use	5	1	2	9	*	0	16.9
	End Use Not Reported	107	9	9	148	4	13	8.8
20	**FOOD and KINDRED PRODUCTS**							
	RSE Column Factors:	0.6	1.3	1.8	0.9	1.3	0.7	
	TOTAL INPUTS	221	30	19	630	6	165	5.8
	Indirect Uses-Boiler Fuel	4	26	10	366	2	154	7.9
	Direct Uses-Total Process	171	3	2	187	2	10	7.9
	Process Heating	9	3	1	178	2	W	8.8
	Process Cooling and Refrigeration	51	0	*	1	W	0	12.7
	Machine Drive	111	*	1	6	*	W	15.2
	Electro-Chemical Processes	*	--	--	--	--	--	1.7
	Other Process Use	1	*	*	1	W	*	18.7
	Direct Uses-Total Nonprocess	35	*	6	56	2	1	10.3
	Facility Heating, Ventilation, and Air Conditioning[e]	16	W	1	35	*	W	15.5
	Facility Lighting	15	--	--	--	--	--	1.2
	Facility Support	4	*	*	5	*	W	20.1
	Onsite Transportation	1	--	3	*	2	--	4.3
	Conventional Electricity Generation	--	W	1	15	*	1	12.2
	Other Nonprocess Use	1	0	*	1	*	0	39.4
	End Use Not Reported	11	*	1	20	*	Q	16.4
2011	**Meat Packing Plants**							
	RSE Column Factors:	1.0	1.1	1.6	0.9	1.5	0.4	
	TOTAL INPUTS	13	1	1	36	W	W	12.2
	Indirect Uses-Boiler Fuel	*	1	*	25	*	*	14.9
	Direct Uses-Total Process	11	*	*	8	*	W	15.1
	Process Heating	*	*	*	7	*	W	17.0
	Process Cooling and Refrigeration	7	0	*	*	0	0	13.5
	Machine Drive	4	0	0	*	*	0	13.9
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	*	0	*	*	*	0	28.8
	Direct Uses-Total Nonprocess	2	*	*	2	W	W	12.4
	Facility Heating, Ventilation, and Air Conditioning[e]	1	*	*	2	*	W	16.9
	Facility Lighting	1	--	--	--	--	--	1.4
	Facility Support	*	*	*	*	W	0	25.8
	Onsite Transportation	*	--	*	0	*	--	4.5
	Conventional Electricity Generation	--	0	0	*	0	0	6.0
	Other Nonprocess Use	0	0	*	0	*	0	0.0
	End Use Not Reported	*	0	0	1	0	0	29.7

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2033	**Canned Fruits and Vegetables**							
	RSE Column Factors:	0.9	0.8	1.8	0.8	1.2	0.8	
	TOTAL INPUTS	6	2	1	43	W	W	14.1
	Indirect Uses-Boiler Fuel	*	1	*	35	*	W	20.9
	Direct Uses-Total Process	5	*	*	2	*	0	25.9
	Process Heating	*	*	0	2	*	0	28.4
	Process Cooling and Refrigeration	2	0	0	*	0	0	28.1
	Machine Drive	4	0	*	*	*	0	21.3
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	*	0	0	*	0	0	42.4
	Direct Uses-Total Nonprocess	1	*	*	6	W	0	12.1
	Facility Heating, Ventilation, and Air Conditioning[e]	*	*	*	2	W	0	17.1
	Facility Lighting	*	--	--	--	--	--	1.4
	Facility Support	*	0	*	*	W	0	19.9
	Onsite Transportation	*	--	*	0	*	--	5.6
	Conventional Electricity Generation	--	0	*	4	0	0	9.5
	Other Nonprocess Use	0	0	0	0	*	0	0.0
	End Use Not Reported	*	*	*	*	*	0	21.6
2037	**Frozen Fruits and Vegetables**							
	RSE Column Factors:	1.1	1.1	1.8	0.8	1.4	0.4	
	TOTAL INPUTS	10	1	*	28	*	0	13.5
	Indirect Uses-Boiler Fuel	*	1	*	21	*	0	19.1
	Direct Uses-Total Process	9	Q	*	5	*	0	13.3
	Process Heating	*	Q	*	5	*	0	18.0
	Process Cooling and Refrigeration	5	0	*	*	0	0	16.2
	Machine Drive	4	0	*	*	*	0	13.1
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	*	0	*	0	0	0	22.6
	Direct Uses-Total Nonprocess	1	*	*	1	*	0	15.4
	Facility Heating, Ventilation, and Air Conditioning[e]	*	*	*	1	*	0	20.7
	Facility Lighting	1	--	--	--	--	--	1.5
	Facility Support	*	*	0	*	*	0	26.4
	Onsite Transportation	*	--	*	0	*	--	5.8
	Conventional Electricity Generation	--	0	*	0	0	0	4.2
	Other Nonprocess Use	*	0	*	0	0	0	31.0
	End Use Not Reported	0	*	*	*	*	0	37.7
2046	**Wet Corn Milling**							
	RSE Column Factors:	1.1	0.8	1.7	0.9	1.5	0.5	
	TOTAL INPUTS	25	1	*	68	*	78	18.1
	Indirect Uses-Boiler Fuel	*	1	*	35	*	78	24.3
	Direct Uses-Total Process	23	0	*	33	*	0	16.0
	Process Heating	*	0	*	33	*	0	23.6
	Process Cooling and Refrigeration	*	0	0	0	0	0	18.7
	Machine Drive	22	0	*	0	0	0	14.8
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	2	0	*	*	*	0	13.2
	Facility Heating, Ventilation, and Air Conditioning[e]	1	0	*	*	*	0	17.9
	Facility Lighting	1	--	--	--	--	--	1.5
	Facility Support	*	0	*	*	0	0	26.1
	Onsite Transportation	*	--	*	0	*	--	6.8
	Conventional Electricity Generation	--	0	*	0	0	0	4.5
	Other Nonprocess Use	*	0	0	*	0	0	41.0
	End Use Not Reported	*	0	0	*	0	0	35.0

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2051	**Bread, Cake, and Related Products**							
	RSE Column Factors:	1.0	0.4	2.2	1.2	2.1	0.4	
	TOTAL INPUTS	8	*	1	27	*	0	11.0
	Indirect Uses-Boiler Fuel	*	*	*	5	*	0	17.0
	Direct Uses-Total Process	6	*	*	19	*	0	10.4
	Process Heating	1	*	*	18	*	0	14.2
	Process Cooling and Refrigeration	1	0	0	*	0	0	22.7
	Machine Drive	4	0	0	*	0	0	8.4
	Electro-Chemical Processes	*	--	--	--	--	--	1.0
	Other Process Use	*	0	*	*	0	0	20.7
	Direct Uses-Total Nonprocess	2	0	1	3	*	0	12.3
	Facility Heating, Ventilation, and Air Conditioning[e]	1	0	*	2	*	0	12.8
	Facility Lighting	1	--	--	--	--	--	1.4
	Facility Support	*	0	*	*	*	0	18.3
	Onsite Transportation	*	--	*	0	*	--	8.6
	Conventional Electricity Generation	--	0	*	1	*	0	9.1
	Other Nonprocess Use	*	0	*	0	0	0	0.0
	End Use Not Reported	*	0	0	1	*	0	29.5
2061	**Cane Sugar, Except Refining**							
	RSE Column Factors:	0.8	1.0	1.1	0.9	1.5	0.8	
	TOTAL INPUTS	2	W	1	2	W	W	14.2
	Indirect Uses-Boiler Fuel	*	2	*	2	*	W	16.6
	Direct Uses-Total Process	2	*	*	*	*	0	20.0
	Process Heating	*	W	*	*	0	0	23.5
	Process Cooling and Refrigeration	W	0	0	0	0	0	21.2
	Machine Drive	2	W	*	0	0	0	18.1
	Electro-Chemical Processes	W	--	--	--	--	--	1.8
	Other Process Use	*	0	0	0	*	0	21.7
	Direct Uses-Total Nonprocess	*	W	1	W	W	0	16.3
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	0	W	W	0	16.3
	Facility Lighting	*	--	--	--	--	--	1.4
	Facility Support	*	0	0	*	0	0	16.7
	Onsite Transportation	0	--	*	0	*	--	4.3
	Conventional Electricity Generation	--	W	*	0	0	0	9.1
	Other Nonprocess Use	*	0	*	0	0	0	24.4
	End Use Not Reported	*	W	*	W	0	0	27.8
2062	**Cane Sugar Refining**							
	RSE Column Factors:	1.2	0.8	1.7	1.0	1.4	0.4	
	TOTAL INPUTS	1	2	1	16	*	0	20.2
	Indirect Uses-Boiler Fuel	*	2	*	15	*	0	21.9
	Direct Uses-Total Process	1	*	*	1	*	0	24.3
	Process Heating	*	*	*	1	*	0	26.0
	Process Cooling and Refrigeration	*	0	0	0	0	0	23.2
	Machine Drive	1	*	*	0	0	0	29.8
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	*	0	*	*	*	0	21.1
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	0	*	0	0	29.1
	Facility Lighting	*	--	--	--	--	--	1.7
	Facility Support	*	0	*	0	0	0	22.1
	Onsite Transportation	*	--	*	0	*	--	8.6
	Conventional Electricity Generation	--	0	*	0	0	0	5.0
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	0	0	0	0	*	0	33.9

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2063	**Beet Sugar**							
	RSE Column Factors:	0.8	0.9	1.2	1.0	1.1	1.0	
	TOTAL INPUTS	3	2	W	19	W	39	2.9
	Indirect Uses-Boiler Fuel	*	1	*	12	0	29	5.2
	Direct Uses-Total Process	3	1	W	6	*	10	4.7
	Process Heating	W	1	W	6	W	W	6.1
	Process Cooling and Refrigeration	W	0	0	0	0	0	11.1
	Machine Drive	W	0	0	*	W	W	6.5
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	*	0	*	*	W	1	3.9
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	0	*	W	W	5.9
	Facility Lighting	*	--	--	--	--	--	1.2
	Facility Support	*	0	0	*	W	W	6.7
	Onsite Transportation	*	--	*	0	*	--	2.6
	Conventional Electricity Generation	--	0	*	*	0	W	4.9
	Other Nonprocess Use	0	0	0	0	*	0	8.8
	End Use Not Reported	*	0	0	0	0	0	12.3
2075	**Soybean Oil Mills**							
	RSE Column Factors:	1.3	0.8	1.2	1.0	0.9	0.9	
	TOTAL INPUTS	8	1	W	30	W	15	1.3
	Indirect Uses-Boiler Fuel	*	W	*	21	W	W	1.4
	Direct Uses-Total Process	7	0	W	7	W	W	1.0
	Process Heating	*	0	W	6	0	W	0.9
	Process Cooling and Refrigeration	*	0	0	0	0	0	2.2
	Machine Drive	6	0	W	0	0	0	0.8
	Electro-Chemical Processes	*	--	--	--	--	--	1.0
	Other Process Use	*	0	0	1	W	0	1.0
	Direct Uses-Total Nonprocess	*	W	*	W	W	W	1.1
	Facility Heating, Ventilation, and Air Conditioning[e]	*	W	0	W	W	0	1.0
	Facility Lighting	*	--	--	--	--	--	1.1
	Facility Support	*	*	0	*	0	0	1.0
	Onsite Transportation	*	--	W	0	W	--	2.1
	Conventional Electricity Generation	--	0	W	W	0	W	0.9
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	0	*	W	*	0	0.9
2082	**Malt Beverages**							
	RSE Column Factors:	1.5	0.2	2.4	1.6	1.3	0.7	
	TOTAL INPUTS	10	W	*	22	W	17	6.8
	Indirect Uses-Boiler Fuel	*	W	*	20	W	17	8.8
	Direct Uses-Total Process	8	W	*	2	W	0	7.7
	Process Heating	W	W	0	2	W	0	16.4
	Process Cooling and Refrigeration	3	0	*	0	0	0	5.2
	Machine Drive	5	0	0	0	0	0	3.9
	Electro-Chemical Processes	0	--	--	--	--	--	1.1
	Other Process Use	W	0	0	0	0	0	0.6
	Direct Uses-Total Nonprocess	2	W	*	1	W	0	10.3
	Facility Heating, Ventilation, and Air Conditioning[e]	1	W	*	1	W	0	8.0
	Facility Lighting	1	--	--	--	--	--	1.4
	Facility Support	W	0	0	0	0	0	15.6
	Onsite Transportation	*	--	*	*	W	--	5.7
	Conventional Electricity Generation	--	0	0	0	0	0	0.6
	Other Nonprocess Use	W	0	*	0	0	0	2.1
	End Use Not Reported	*	0	0	0	*	0	13.0

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
21	**TOBACCO PRODUCTS**							
	RSE Column Factors:	0.7	0.9	1.8	0.9	1.5	0.6	
	TOTAL INPUTS	5	1	W	W	W	W	20.9
	Indirect Uses-Boiler Fuel	*	1	*	2	W	W	25.8
	Direct Uses-Total Process	3	*	W	1	*	0	23.3
	Process Heating	*	*	*	1	*	0	26.9
	Process Cooling and Refrigeration	*	*	0	*	0	0	38.7
	Machine Drive	3	0	W	*	0	0	25.6
	Electro-Chemical Processes	0	--	--	--	--	--	0.9
	Other Process Use	*	0	0	*	0	0	39.8
	Direct Uses-Total Nonprocess	2	*	*	W	*	0	26.1
	Facility Heating, Ventilation, and Air Conditioning[e]	1	*	0	W	*	0	33.5
	Facility Lighting	*	--	--	--	--	--	1.6
	Facility Support	*	*	0	*	0	0	34.3
	Onsite Transportation	0	--	*	0	*	--	5.1
	Conventional Electricity Generation	--	0	*	0	0	0	5.6
	Other Nonprocess Use	0	0	*	0	*	0	23.2
	End Use Not Reported	*	0	0	0	0	0	0.0
22	**TEXTILE MILL PRODUCTS**							
	RSE Column Factors:	0.9	0.8	1.3	0.9	1.2	0.9	
	TOTAL INPUTS	113	17	W	117	W	40	11.9
	Indirect Uses-Boiler Fuel	1	15	6	69	W	40	15.6
	Direct Uses-Total Process	77	1	W	36	3	0	15.1
	Process Heating	5	1	W	33	3	0	19.0
	Process Cooling and Refrigeration	7	0	0	*	0	0	13.5
	Machine Drive	64	*	*	Q	*	0	6.7
	Electro-Chemical Processes	*	--	--	--	--	--	1.9
	Other Process Use	1	0	0	*	*	0	55.0
	Direct Uses-Total Nonprocess	29	W	*	8	1	W	18.2
	Facility Heating, Ventilation, and Air Conditioning[e]	16	W	*	7	W	W	17.1
	Facility Lighting	11	--	--	--	--	--	1.4
	Facility Support	2	W	*	W	W	0	27.7
	Onsite Transportation	*	--	*	*	W	--	8.2
	Conventional Electricity Generation	--	0	W	W	W	W	14.4
	Other Nonprocess Use	*	*	W	0	0	0	35.6
	End Use Not Reported	6	W	W	3	*	W	26.6
23	**APPAREL and OTHER TEXTILE PRODUCTS**							
	RSE Column Factors:	1.3	0.8	1.7	0.9	1.6	0.4	
	TOTAL INPUTS	26	W	1	25	W	W	16.3
	Indirect Uses-Boiler Fuel	Q	*	*	9	*	W	26.4
	Direct Uses-Total Process	11	W	W	7	*	0	10.4
	Process Heating	1	0	*	5	*	0	17.4
	Process Cooling and Refrigeration	*	0	0	*	0	0	19.5
	Machine Drive	10	W	W	2	*	0	14.5
	Electro-Chemical Processes	*	--	--	--	--	--	1.1
	Other Process Use	*	0	W	*	*	0	53.1
	Direct Uses-Total Nonprocess	11	0	*	8	*	0	16.4
	Facility Heating, Ventilation, and Air Conditioning[e]	6	0	*	7	*	0	20.0
	Facility Lighting	4	--	--	--	--	--	1.6
	Facility Support	1	0	*	1	*	0	17.0
	Onsite Transportation	*	--	*	0	*	--	8.0
	Conventional Electricity Generation	--	0	0	*	0	0	0.8
	Other Nonprocess Use	*	0	*	*	0	0	0.0
	End Use Not Reported	3	0	W	2	W	0	19.3

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
24	**LUMBER and WOOD PRODUCTS**							
	RSE Column Factors:	0.8	1.4	1.5	0.8	1.1	0.7	
	TOTAL INPUTS	74	W	22	48	W	W	8.9
	Indirect Uses-Boiler Fuel	2	1	1	15	W	W	17.1
	Direct Uses-Total Process	57	*	11	24	1	0	11.2
	Process Heating	4	*	1	21	1	0	14.8
	Process Cooling and Refrigeration	*	0	0	*	W	0	23.7
	Machine Drive	53	0	9	1	*	0	13.1
	Electro-Chemical Processes	*	--	--	--	--	--	1.7
	Other Process Use	1	0	Q	Q	W	0	23.0
	Direct Uses-Total Nonprocess	9	W	8	7	2	0	10.3
	Facility Heating, Ventilation, and Air Conditioning[e]	3	W	Q	7	*	0	15.7
	Facility Lighting	5	--	--	--	--	--	1.3
	Facility Support	1	0	*	*	*	0	23.8
	Onsite Transportation	*	--	7	*	2	--	4.5
	Conventional Electricity Generation	--	0	*	*	0	0	5.5
	Other Nonprocess Use	*	0	*	*	*	0	39.2
	End Use Not Reported	6	0	2	3	*	0	15.9
2421	**Sawmills and Planing Mills, General**							
	RSE Column Factors:	0.6	1.0	1.5	1.1	1.6	0.6	
	TOTAL INPUTS	27	W	7	11	W	0	12.6
	Indirect Uses-Boiler Fuel	1	*	*	5	W	0	26.6
	Direct Uses-Total Process	21	*	2	5	*	0	13.8
	Process Heating	1	*	*	5	*	0	18.7
	Process Cooling and Refrigeration	*	0	0	*	W	0	80.2
	Machine Drive	19	0	2	*	*	0	13.8
	Electro-Chemical Processes	*	--	--	--	--	--	0.9
	Other Process Use	*	0	0	0	W	0	31.2
	Direct Uses-Total Nonprocess	3	W	4	*	*	0	13.7
	Facility Heating, Ventilation, and Air Conditioning[e]	1	W	*	*	*	0	21.9
	Facility Lighting	1	--	--	--	--	--	1.4
	Facility Support	*	0	*	*	*	0	18.9
	Onsite Transportation	*	--	4	0	*	--	3.5
	Conventional Electricity Generation	--	0	*	0	0	0	1.6
	Other Nonprocess Use	*	0	*	0	*	0	23.4
	End Use Not Reported	3	0	1	*	*	0	24.3
2436	**Softwood Veneer and Plywood**							
	RSE Column Factors:	1.7	0.4	1.8	1.5	1.4	0.4	
	TOTAL INPUTS	10	*	1	3	1	0	7.9
	Indirect Uses-Boiler Fuel	*	*	*	*	*	0	13.2
	Direct Uses-Total Process	8	0	*	2	*	0	11.9
	Process Heating	1	0	0	2	*	0	13.0
	Process Cooling and Refrigeration	*	0	0	0	0	0	7.6
	Machine Drive	7	0	W	0	W	0	12.9
	Electro-Chemical Processes	W	--	--	--	--	--	1.8
	Other Process Use	W	0	W	0	W	0	12.3
	Direct Uses-Total Nonprocess	1	0	1	*	*	0	11.0
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	*	*	*	0	18.3
	Facility Lighting	1	--	--	--	--	--	1.6
	Facility Support	*	0	0	0	0	0	8.8
	Onsite Transportation	*	--	1	0	*	--	5.4
	Conventional Electricity Generation	--	0	*	0	0	0	3.5
	Other Nonprocess Use	*	0	*	0	0	0	13.5
	End Use Not Reported	*	0	*	*	*	0	19.3

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2493	**Reconstituted Wood Products**							
	RSE Column Factors:	1.0	1.2	1.4	0.8	1.2	0.6	
	TOTAL INPUTS	16	W	W	18	W	W	13.1
	Indirect Uses-Boiler Fuel	*	1	*	5	W	W	18.2
	Direct Uses-Total Process	14	*	*	11	1	0	16.2
	Process Heating	1	*	*	9	1	0	16.4
	Process Cooling and Refrigeration	*	0	0	0	0	0	17.5
	Machine Drive	12	0	*	1	*	0	18.6
	Electro-Chemical Processes	*	--	--	--	--	--	1.7
	Other Process Use	1	0	0	Q	*	0	24.3
	Direct Uses-Total Nonprocess	1	W	*	1	*	0	15.0
	Facility Heating, Ventilation, and Air Conditioning[e]	*	W	0	1	*	0	19.8
	Facility Lighting	1	--	--	--	--	--	1.4
	Facility Support	W	0	*	*	*	0	25.3
	Onsite Transportation	W	--	*	0	*	--	4.7
	Conventional Electricity Generation	--	0	*	0	0	0	4.3
	Other Nonprocess Use	*	0	0	0	0	0	0.0
	End Use Not Reported	*	0	W	1	*	0	36.6
25	**FURNITURE and FIXTURES**							
	RSE Column Factors:	0.8	1.1	1.3	0.7	1.1	1.2	
	TOTAL INPUTS	23	*	1	23	1	3	11.7
	Indirect Uses-Boiler Fuel	*	*	*	4	*	2	20.5
	Direct Uses-Total Process	14	*	*	9	*	*	18.7
	Process Heating	1	*	*	8	*	*	23.8
	Process Cooling and Refrigeration	*	0	0	*	0	0	38.6
	Machine Drive	12	*	*	*	*	*	25.8
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	*	0	0	*	*	0	45.7
	Direct Uses-Total Nonprocess	7	*	*	9	1	*	14.1
	Facility Heating, Ventilation, and Air Conditioning[e]	3	*	*	9	*	*	19.3
	Facility Lighting	4	--	--	--	--	--	1.4
	Facility Support	1	0	0	*	*	0	20.0
	Onsite Transportation	*	--	*	0	W	--	5.1
	Conventional Electricity Generation	--	0	0	0	W	0	6.9
	Other Nonprocess Use	*	0	*	*	*	0	39.8
	End Use Not Reported	2	*	*	2	*	*	30.2
2511	**Wood Furniture, Except Upholstered**							
	RSE Column Factors:	0.6	1.1	1.2	1.0	1.4	1.0	
	TOTAL INPUTS	8	*	*	2	*	1	15.8
	Indirect Uses-Boiler Fuel	*	*	*	*	*	1	25.3
	Direct Uses-Total Process	5	*	*	*	*	*	33.1
	Process Heating	*	*	*	*	*	*	37.3
	Process Cooling and Refrigeration	*	0	0	0	0	0	46.6
	Machine Drive	5	*	*	*	*	*	31.3
	Electro-Chemical Processes	*	--	--	--	--	--	0.9
	Other Process Use	*	0	0	*	0	0	56.4
	Direct Uses-Total Nonprocess	1	*	*	1	*	*	23.0
	Facility Heating, Ventilation, and Air Conditioning[e]	*	*	*	1	*	*	28.6
	Facility Lighting	1	--	--	--	--	--	1.4
	Facility Support	*	0	0	*	*	0	30.6
	Onsite Transportation	*	--	*	0	W	--	5.8
	Conventional Electricity Generation	--	0	0	0	W	0	7.4
	Other Nonprocess Use	0	0	*	*	*	0	32.6
	End Use Not Reported	*	0	*	*	*	*	39.1

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
26	**PAPER and ALLIED PRODUCTS**							
	RSE Column Factors:	0.6	1.1	1.2	0.7	1.4	1.3	
	TOTAL INPUTS	416	173	9	574	5	307	3.3
	Indirect Uses-Boiler Fuel	14	138	5	401	1	299	5.0
	Direct Uses-Total Process	355	32	W	115	2	W	6.3
	Process Heating	8	30	1	102	1	W	7.5
	Process Cooling and Refrigeration	6	0	0	1	0	0	11.8
	Machine Drive	333	1	1	10	*	W	12.5
	Electro-Chemical Processes	4	--	--	--	--	--	1.5
	Other Process Use	4	0	W	2	*	0	13.9
	Direct Uses-Total Nonprocess	36	2	2	51	3	W	6.1
	Facility Heating, Ventilation, and Air Conditioning[e]	16	W	*	17	W	W	11.6
	Facility Lighting	16	--	--	--	--	--	1.2
	Facility Support	4	W	*	1	*	0	16.5
	Onsite Transportation	*	--	2	*	2	--	2.5
	Conventional Electricity Generation	--	W	*	31	W	W	9.8
	Other Nonprocess Use	*	W	*	2	*	0	25.4
	End Use Not Reported	12	1	W	7	*	W	13.2
2611	**Pulp Mills**							
	RSE Column Factors:	1.2	0.7	1.2	1.0	1.2	0.7	
	TOTAL INPUTS	26	23	W	22	W	7	12.5
	Indirect Uses-Boiler Fuel	1	18	1	14	*	7	16.4
	Direct Uses-Total Process	23	4	*	7	*	0	12.8
	Process Heating	*	4	*	7	*	0	16.3
	Process Cooling and Refrigeration	1	0	0	0	0	0	12.3
	Machine Drive	21	0	*	*	*	0	18.1
	Electro-Chemical Processes	*	--	--	--	--	--	1.7
	Other Process Use	*	0	0	0	*	0	25.4
	Direct Uses-Total Nonprocess	3	0	*	1	*	0	12.3
	Facility Heating, Ventilation, and Air Conditioning[e]	1	0	*	1	0	0	20.1
	Facility Lighting	1	--	--	--	--	--	1.5
	Facility Support	*	0	0	*	*	0	20.9
	Onsite Transportation	0	--	*	0	*	--	3.6
	Conventional Electricity Generation	--	0	0	0	0	0	0.8
	Other Nonprocess Use	*	0	0	0	0	0	20.5
	End Use Not Reported	0	1	W	0	W	0	29.8
2621	**Paper Mills**							
	RSE Column Factors:	0.7	1.0	1.1	0.8	1.1	1.3	
	TOTAL INPUTS	225	94	4	271	2	195	5.0
	Indirect Uses-Boiler Fuel	6	76	2	195	W	W	7.7
	Direct Uses-Total Process	197	17	1	48	1	W	9.6
	Process Heating	2	17	1	44	1	W	11.4
	Process Cooling and Refrigeration	3	0	0	*	0	0	20.4
	Machine Drive	188	1	*	W	*	W	13.8
	Electro-Chemical Processes	2	--	--	--	--	--	1.6
	Other Process Use	2	0	*	W	0	0	23.8
	Direct Uses-Total Nonprocess	15	W	1	26	1	W	8.6
	Facility Heating, Ventilation, and Air Conditioning[e]	7	W	W	3	*	W	10.8
	Facility Lighting	7	--	--	--	--	--	1.3
	Facility Support	2	W	*	*	*	0	17.4
	Onsite Transportation	*	--	1	0	1	--	3.3
	Conventional Electricity Generation	--	W	W	23	0	W	10.6
	Other Nonprocess Use	*	W	*	*	*	0	25.8
	End Use Not Reported	7	W	*	2	W	0	17.7

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2631	**Paperboard Mills**							
	RSE Column Factors:	0.8	1.0	1.2	0.9	1.0	1.2	
	TOTAL INPUTS	111	50	W	199	W	101	2.6
	Indirect Uses-Boiler Fuel	6	39	1	150	W	W	4.7
	Direct Uses-Total Process	96	9	W	36	*	W	5.0
	Process Heating	2	W	*	31	*	W	6.8
	Process Cooling and Refrigeration	1	0	0	W	0	0	8.6
	Machine Drive	91	W	W	W	W	0	7.6
	Electro-Chemical Processes	1	--	--	--	--	--	1.5
	Other Process Use	2	0	W	0	W	0	11.8
	Direct Uses-Total Nonprocess	6	W	1	12	*	W	6.2
	Facility Heating, Ventilation, and Air Conditioning[e]	2	W	W	W	*	0	7.7
	Facility Lighting	3	--	--	--	--	--	1.2
	Facility Support	1	0	W	*	0	0	9.2
	Onsite Transportation	W	--	1	0	*	--	2.7
	Conventional Electricity Generation	--	W	W	9	0	W	7.7
	Other Nonprocess Use	W	0	*	W	0	0	13.1
	End Use Not Reported	3	W	W	2	W	W	9.8
27	**PRINTING and PUBLISHING**							
	RSE Column Factors:	0.7	1.2	1.8	0.9	1.7	0.4	
	TOTAL INPUTS	59	W	2	47	W	0	7.8
	Indirect Uses-Boiler Fuel	*	*	1	11	W	0	14.0
	Direct Uses-Total Process	31	W	*	17	*	0	8.1
	Process Heating	2	0	*	15	*	0	11.2
	Process Cooling and Refrigeration	2	0	0	*	0	0	15.2
	Machine Drive	27	0	*	1	*	0	13.0
	Electro-Chemical Processes	*	--	--	--	--	--	1.6
	Other Process Use	*	W	*	*	*	0	28.6
	Direct Uses-Total Nonprocess	22	W	1	15	1	0	11.4
	Facility Heating, Ventilation, and Air Conditioning[e]	12	W	1	14	*	0	11.4
	Facility Lighting	7	--	--	--	--	--	1.3
	Facility Support	3	*	*	1	*	0	15.6
	Onsite Transportation	*	--	W	*	*	--	5.4
	Conventional Electricity Generation	--	0	W	*	0	0	9.0
	Other Nonprocess Use	*	0	*	*	*	0	35.4
	End Use Not Reported	6	0	*	5	*	0	16.8
28	**CHEMICALS and ALLIED PRODUCTS**							
	RSE Column Factors:	0.6	1.2	1.0	0.8	1.6	1.0	
	TOTAL INPUTS	680	60	13	1,895	W	257	5.9
	Indirect Uses-Boiler Fuel	9	37	7	931	1	245	9.2
	Direct Uses-Total Process	609	18	W	707	2	10	8.5
	Process Heating	22	18	2	638	1	W	9.5
	Process Cooling and Refrigeration	43	*	*	11	W	*	23.6
	Machine Drive	419	*	1	39	*	W	16.0
	Electro-Chemical Processes	122	--	--	--	--	--	1.3
	Other Process Use	3	*	W	20	W	0	20.0
	Direct Uses-Total Nonprocess	52	W	3	230	1	W	10.3
	Facility Heating, Ventilation, and Air Conditioning[e]	26	W	*	17	*	1	15.7
	Facility Lighting	20	--	--	--	--	--	1.2
	Facility Support	6	W	*	3	W	0	11.2
	Onsite Transportation	*	--	2	*	1	--	4.8
	Conventional Electricity Generation	--	W	*	207	W	W	13.7
	Other Nonprocess Use	1	W	*	3	*	0	19.0
	End Use Not Reported	10	W	W	27	W	W	15.6

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2812	**Alkalies and Chlorine**							
	RSE Column Factors:	0.9	1.0	1.1	1.0	1.2	0.8	
	TOTAL INPUTS	60	W	*	53	*	W	8.3
	Indirect Uses-Boiler Fuel	W	W	*	W	*	W	10.9
	Direct Uses-Total Process	59	0	W	2	*	0	7.8
	Process Heating	W	0	W	W	0	0	9.8
	Process Cooling and Refrigeration	W	0	0	0	0	0	8.0
	Machine Drive	6	0	W	*	*	0	9.3
	Electro-Chemical Processes	53	--	--	--	--	--	1.3
	Other Process Use	W	0	0	W	0	0	14.9
	Direct Uses-Total Nonprocess	W	W	W	W	*	0	8.8
	Facility Heating, Ventilation, and Air Conditioning[e]	*	W	0	W	0	0	8.7
	Facility Lighting	*	--	--	--	--	--	1.3
	Facility Support	W	0	0	W	0	0	12.6
	Onsite Transportation	0	--	W	0	*	--	2.8
	Conventional Electricity Generation	--	0	0	W	0	0	3.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	0	0	*	0	*	0	12.1
2813	**Industrial Gases**							
	RSE Column Factors:	0.7	0.9	1.0	1.5	1.4	0.9	
	TOTAL INPUTS	82	0	W	19	W	0	16.1
	Indirect Uses-Boiler Fuel	3	0	*	6	*	0	36.3
	Direct Uses-Total Process	76	0	0	9	*	0	18.3
	Process Heating	2	0	0	9	*	0	28.0
	Process Cooling and Refrigeration	2	0	0	0	0	0	24.6
	Machine Drive	72	0	0	*	0	0	14.2
	Electro-Chemical Processes	0	--	--	--	--	--	0.9
	Other Process Use	*	0	0	*	0	0	75.3
	Direct Uses-Total Nonprocess	2	0	W	3	*	0	20.8
	Facility Heating, Ventilation, and Air Conditioning[e]	1	0	0	*	*	0	20.6
	Facility Lighting	1	--	--	--	--	--	1.4
	Facility Support	*	0	0	*	0	0	21.2
	Onsite Transportation	0	--	W	0	0	--	1.2
	Conventional Electricity Generation	--	0	0	2	0	0	6.6
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	1	0	0	0	W	0	56.8
2816	**Inorganic Pigments**							
	RSE Column Factors:	1.4	0.7	1.2	0.8	1.2	1.0	
	TOTAL INPUTS	8	W	W	W	W	W	9.1
	Indirect Uses-Boiler Fuel	*	W	*	10	*	W	11.7
	Direct Uses-Total Process	8	0	W	11	W	W	10.1
	Process Heating	W	0	*	11	W	W	10.6
	Process Cooling and Refrigeration	*	0	0	0	0	0	7.2
	Machine Drive	5	0	W	*	W	0	12.4
	Electro-Chemical Processes	W	--	--	--	--	--	1.6
	Other Process Use	W	0	0	0	*	0	14.3
	Direct Uses-Total Nonprocess	*	0	*	*	*	0	7.2
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	*	*	*	0	9.6
	Facility Lighting	*	--	--	--	--	--	1.4
	Facility Support	W	0	0	*	*	0	9.1
	Onsite Transportation	W	--	*	0	*	--	4.2
	Conventional Electricity Generation	--	0	0	0	0	0	0.7
	Other Nonprocess Use	0	0	*	0	0	0	17.0
	End Use Not Reported	*	0	W	W	*	0	16.6

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2819	**Industrial Inorganic Chemicals, nec.**							
	RSE Column Factors:	1.2	0.8	1.3	0.8	1.3	0.7	
	TOTAL INPUTS	155	4	W	W	W	32	11.3
	Indirect Uses-Boiler Fuel	1	1	1	73	*	26	13.4
	Direct Uses-Total Process	149	3	*	63	*	W	14.0
	Process Heating	7	3	*	61	*	W	13.0
	Process Cooling and Refrigeration	1	0	0	0	0	0	7.4
	Machine Drive	126	0	*	Q	*	0	25.2
	Electro-Chemical Processes	14	--	--	--	--	--	1.5
	Other Process Use	0	0	*	*	0	0	19.5
	Direct Uses-Total Nonprocess	5	*	*	4	*	W	11.9
	Facility Heating, Ventilation, and Air Conditioning[e]	2	*	*	2	*	W	15.9
	Facility Lighting	2	--	--	--	--	--	1.5
	Facility Support	1	0	W	*	*	0	16.7
	Onsite Transportation	*	--	W	0	*	--	5.4
	Conventional Electricity Generation	--	0	*	2	0	0	6.8
	Other Nonprocess Use	*	0	*	0	0	0	19.5
	End Use Not Reported	*	*	W	W	W	0	31.3
2821	**Plastics Materials and Resins**							
	RSE Column Factors:	0.8	0.9	1.2	1.0	1.7	0.7	
	TOTAL INPUTS	72	3	1	W	W	19	9.2
	Indirect Uses-Boiler Fuel	1	W	1	116	*	19	10.8
	Direct Uses-Total Process	61	W	W	52	W	0	13.3
	Process Heating	W	W	*	38	W	0	16.9
	Process Cooling and Refrigeration	6	0	0	*	W	0	9.7
	Machine Drive	41	0	W	6	W	0	10.9
	Electro-Chemical Processes	11	--	--	--	--	--	1.5
	Other Process Use	W	*	*	8	W	0	21.3
	Direct Uses-Total Nonprocess	5	*	*	20	*	0	11.6
	Facility Heating, Ventilation, and Air Conditioning[e]	3	0	*	1	*	0	13.1
	Facility Lighting	2	--	--	--	--	--	1.3
	Facility Support	1	0	W	W	*	0	11.9
	Onsite Transportation	W	--	W	0	*	--	4.1
	Conventional Electricity Generation	--	0	W	W	0	0	6.0
	Other Nonprocess Use	W	*	W	*	0	0	22.2
	End Use Not Reported	4	0	W	W	W	0	24.9
2822	**Synthetic Rubber**							
	RSE Column Factors:	1.0	0.6	1.3	1.3	1.3	0.7	
	TOTAL INPUTS	8	W	*	42	W	W	20.7
	Indirect Uses-Boiler Fuel	*	W	*	23	0	W	28.1
	Direct Uses-Total Process	7	0	W	18	0	0	18.2
	Process Heating	*	0	0	16	0	0	21.3
	Process Cooling and Refrigeration	1	0	0	*	0	0	22.7
	Machine Drive	6	0	W	*	0	0	19.9
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	*	0	0	2	0	0	33.6
	Direct Uses-Total Nonprocess	1	0	*	*	W	0	15.2
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	0	*	W	0	18.6
	Facility Lighting	*	--	--	--	--	--	1.6
	Facility Support	*	0	*	*	0	0	22.9
	Onsite Transportation	*	--	*	0	*	--	7.3
	Conventional Electricity Generation	--	0	0	*	0	0	5.7
	Other Nonprocess Use	0	0	*	*	0	0	33.3
	End Use Not Reported	*	0	W	*	0	0	20.8

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2823	**Cellulosic Manmade Fibers**							
	RSE Column Factors:	1.0	1.0	1.0	1.0	1.0	1.0	
	TOTAL INPUTS	3	0	*	W	W	W	1.0
	Indirect Uses-Boiler Fuel	W	0	W	W	0	W	1.0
	Direct Uses-Total Process	2	0	W	W	*	0	1.0
	Process Heating	W	0	W	W	*	0	1.0
	Process Cooling and Refrigeration	W	0	0	0	0	0	1.0
	Machine Drive	2	0	*	0	0	0	1.0
	Electro-Chemical Processes	W	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	W	0	*	*	W	0	1.0
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	0	*	0	0	1.0
	Facility Lighting	*	--	--	--	--	--	1.0
	Facility Support	*	0	0	*	0	0	1.0
	Onsite Transportation	W	--	*	0	W	--	1.0
	Conventional Electricity Generation	--	0	0	0	0	0	1.0
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	0	0	0	0	0	1.0
2824	**Organic Fibers, Noncellulosic**							
	RSE Column Factors:	0.9	0.8	1.4	1.3	1.2	0.6	
	TOTAL INPUTS	29	9	1	W	W	35	6.8
	Indirect Uses-Boiler Fuel	*	W	*	32	W	35	7.9
	Direct Uses-Total Process	25	W	W	W	*	0	8.1
	Process Heating	W	W	W	W	*	0	8.2
	Process Cooling and Refrigeration	3	0	0	W	0	0	8.9
	Machine Drive	17	0	W	*	0	0	9.0
	Electro-Chemical Processes	W	--	--	--	--	--	1.6
	Other Process Use	*	0	0	0	0	0	14.3
	Direct Uses-Total Nonprocess	4	0	*	W	*	0	4.7
	Facility Heating, Ventilation, and Air Conditioning[e]	2	0	W	W	W	0	7.7
	Facility Lighting	2	--	--	--	--	--	1.3
	Facility Support	W	0	0	*	W	0	10.5
	Onsite Transportation	*	--	W	*	W	--	4.7
	Conventional Electricity Generation	--	0	W	0	0	0	3.7
	Other Nonprocess Use	W	0	W	0	*	0	14.2
	End Use Not Reported	*	0	W	W	W	0	11.2
2861	**Gum and Wood Chemicals**							
	RSE Column Factors:	1.2	1.0	1.2	1.2	1.1	0.6	
	TOTAL INPUTS	1	*	W	4	W	0	6.9
	Indirect Uses-Boiler Fuel	W	0	W	W	W	0	8.7
	Direct Uses-Total Process	1	*	W	W	W	0	7.2
	Process Heating	*	*	W	W	W	0	8.9
	Process Cooling and Refrigeration	*	0	0	W	0	0	17.5
	Machine Drive	*	0	W	0	W	0	7.1
	Electro-Chemical Processes	*	--	--	--	--	--	1.6
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	W	0	W	*	W	0	6.2
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	0	*	W	0	8.7
	Facility Lighting	*	--	--	--	--	--	1.3
	Facility Support	W	0	0	*	0	0	7.2
	Onsite Transportation	0	--	W	0	W	--	2.8
	Conventional Electricity Generation	--	0	0	0	0	0	0.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	0	W	W	W	0	7.6

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2865	**Cyclic Crudes and Intermediates**							
	RSE Column Factors:	1.3	0.8	1.2	1.2	1.2	0.6	
	TOTAL INPUTS	19	W	1	98	1	W	19.7
	Indirect Uses-Boiler Fuel	1	W	1	65	Q	W	21.7
	Direct Uses-Total Process	16	*	W	26	*	0	17.3
	Process Heating	2	*	*	25	*	0	22.3
	Process Cooling and Refrigeration	4	0	0	W	0	0	22.6
	Machine Drive	10	0	W	W	*	0	16.4
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	*	0	*	0	0	0	25.9
	Direct Uses-Total Nonprocess	2	0	*	5	*	0	17.7
	Facility Heating, Ventilation, and Air Conditioning[e]	1	0	0	*	W	0	22.9
	Facility Lighting	1	--	--	--	--	--	1.6
	Facility Support	*	0	*	*	W	0	20.8
	Onsite Transportation	*	--	*	*	*	--	8.8
	Conventional Electricity Generation	--	0	0	4	0	0	4.6
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	W	W	2	0	0	31.7
2869	**Industrial Organic Chemicals, nec.**							
	RSE Column Factors:	0.9	0.9	1.3	1.0	1.4	0.7	
	TOTAL INPUTS	151	5	2	837	1	92	10.2
	Indirect Uses-Boiler Fuel	1	W	1	387	*	W	13.5
	Direct Uses-Total Process	139	1	W	285	1	0	12.8
	Process Heating	W	1	W	249	W	0	16.4
	Process Cooling and Refrigeration	16	0	W	4	W	0	17.6
	Machine Drive	82	0	*	28	0	0	11.4
	Electro-Chemical Processes	38	--	--	--	--	--	1.5
	Other Process Use	W	0	*	4	0	0	32.7
	Direct Uses-Total Nonprocess	10	W	1	153	*	0	15.1
	Facility Heating, Ventilation, and Air Conditioning[e]	4	W	W	3	W	0	12.9
	Facility Lighting	4	--	--	--	--	--	1.4
	Facility Support	1	0	*	W	W	0	10.8
	Onsite Transportation	*	--	W	0	*	--	5.3
	Conventional Electricity Generation	--	0	*	147	W	0	8.6
	Other Nonprocess Use	*	0	W	W	0	0	24.4
	End Use Not Reported	2	W	W	11	*	W	17.5
2873	**Nitrogenous Fertilizers**							
	RSE Column Factors:	1.5	0.4	1.5	1.4	1.7	0.4	
	TOTAL INPUTS	15	0	*	267	*	0	6.7
	Indirect Uses-Boiler Fuel	*	0	*	72	0	0	11.2
	Direct Uses-Total Process	14	0	*	185	*	0	9.9
	Process Heating	1	0	*	177	*	0	14.4
	Process Cooling and Refrigeration	1	0	0	5	0	0	14.2
	Machine Drive	11	0	*	2	*	0	13.6
	Electro-Chemical Processes	1	--	--	--	--	--	1.8
	Other Process Use	*	0	0	2	0	0	23.2
	Direct Uses-Total Nonprocess	1	0	*	2	*	0	10.5
	Facility Heating, Ventilation, and Air Conditioning[e]	1	0	*	*	*	0	14.6
	Facility Lighting	*	--	--	--	--	--	1.6
	Facility Support	*	0	*	*	*	0	19.3
	Onsite Transportation	0	--	*	0	*	--	4.4
	Conventional Electricity Generation	--	0	*	2	*	0	8.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	0	*	8	*	0	18.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2874	**Phosphatic Fertilizers**							
	RSE Column Factors:	1.1	0.8	1.1	1.0	1.3	0.8	
	TOTAL INPUTS	14	W	1	W	*	W	5.1
	Indirect Uses-Boiler Fuel	W	W	W	2	0	0	6.7
	Direct Uses-Total Process	12	W	*	7	W	W	5.3
	Process Heating	W	W	W	7	W	W	6.5
	Process Cooling and Refrigeration	W	0	0	*	0	0	7.4
	Machine Drive	11	0	W	*	0	0	7.0
	Electro-Chemical Processes	W	--	--	--	--	--	1.4
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	W	0	*	W	W	0	4.6
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	*	W	*	0	5.8
	Facility Lighting	*	--	--	--	--	--	1.3
	Facility Support	*	0	*	0	*	0	6.3
	Onsite Transportation	W	--	W	0	W	--	3.1
	Conventional Electricity Generation	--	0	0	0	0	0	0.9
	Other Nonprocess Use	0	0	W	0	0	0	9.4
	End Use Not Reported	*	0	W	0	0	0	8.1
2895	**Carbon Black**							
	RSE Column Factors:	0.9	1.0	1.3	1.1	1.7	0.5	
	TOTAL INPUTS	2	W	W	17	W	0	10.7
	Indirect Uses-Boiler Fuel	W	0	0	6	0	0	13.7
	Direct Uses-Total Process	2	W	W	10	0	0	12.5
	Process Heating	W	W	0	10	0	0	16.3
	Process Cooling and Refrigeration	W	0	0	0	0	0	15.1
	Machine Drive	2	0	W	*	0	0	12.6
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	W	W	*	W	W	0	13.8
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	*	W	0	0	13.6
	Facility Lighting	*	--	--	--	--	--	1.6
	Facility Support	W	W	0	W	0	0	18.3
	Onsite Transportation	0	--	*	*	W	--	6.0
	Conventional Electricity Generation	--	0	0	W	0	0	4.4
	Other Nonprocess Use	0	0	*	0	0	0	20.0
	End Use Not Reported	0	0	0	W	0	0	23.2
29	***PETROLEUM and COAL PRODUCTS***							
	RSE Column Factors:	0.6	0.9	1.6	0.7	1.1	1.5	
	TOTAL INPUTS	171	72	21	W	47	W	6.6
	Indirect Uses-Boiler Fuel	3	37	2	255	10	W	8.7
	Direct Uses-Total Process	150	29	16	469	35	6	7.2
	Process Heating	4	29	14	451	32	6	8.8
	Process Cooling and Refrigeration	9	*	*	W	W	0	21.7
	Machine Drive	137	*	W	12	1	0	15.3
	Electro-Chemical Processes	*	--	--	--	--	--	1.5
	Other Process Use	*	0	W	W	W	0	14.8
	Direct Uses-Total Nonprocess	12	*	2	81	1	0	11.1
	Facility Heating, Ventilation, and Air Conditioning[e]	6	W	*	5	W	0	13.6
	Facility Lighting	5	--	--	--	--	--	1.3
	Facility Support	1	W	*	1	W	0	15.7
	Onsite Transportation	*	--	2	0	W	--	5.2
	Conventional Electricity Generation	--	0	*	74	W	0	6.7
	Other Nonprocess Use	*	0	*	*	W	0	24.0
	End Use Not Reported	6	6	2	W	2	0	17.9

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
2911	**Petroleum Refining**							
	RSE Column Factors:	0.8	0.9	1.3	0.9	1.4	0.8	
	TOTAL INPUTS	161	68	7	756	W	W	5.8
	Indirect Uses-Boiler Fuel	3	35	1	243	9	W	7.3
	Direct Uses-Total Process	142	28	5	430	33	0	5.3
	Process Heating	3	28	5	414	31	0	6.9
	Process Cooling and Refrigeration	9	0	0	W	W	0	11.8
	Machine Drive	130	0	W	10	1	0	7.3
	Electro-Chemical Processes	*	--	--	--	--	--	1.5
	Other Process Use	*	0	W	W	W	0	12.4
	Direct Uses-Total Nonprocess	10	W	*	W	W	0	8.7
	Facility Heating, Ventilation, and Air Conditioning[e]	W	0	0	W	W	0	7.2
	Facility Lighting	4	--	--	--	--	--	1.3
	Facility Support	1	W	W	1	W	0	12.4
	Onsite Transportation	*	--	*	0	W	--	4.3
	Conventional Electricity Generation	--	0	*	74	W	0	6.1
	Other Nonprocess Use	W	0	W	*	W	0	17.3
	End Use Not Reported	6	W	*	W	W	0	15.0
30	**RUBBER and MISC. PLASTICS PRODUCTS**							
	RSE Column Factors:	0.6	1.1	1.6	1.0	1.2	0.7	
	TOTAL INPUTS	150	10	3	110	3	5	7.2
	Indirect Uses-Boiler Fuel	1	8	2	56	*	5	11.6
	Direct Uses-Total Process	114	1	*	25	1	0	10.3
	Process Heating	25	1	*	23	1	0	12.8
	Process Cooling and Refrigeration	10	0	*	*	W	0	17.4
	Machine Drive	78	1	*	1	*	0	18.9
	Electro-Chemical Processes	*	--	--	--	--	--	1.7
	Other Process Use	1	0	*	1	W	0	34.1
	Direct Uses-Total Nonprocess	28	*	1	22	2	*	9.2
	Facility Heating, Ventilation, and Air Conditioning[e]	13	*	*	20	*	W	14.0
	Facility Lighting	11	--	--	--	--	--	1.3
	Facility Support	3	*	*	1	*	W	14.7
	Onsite Transportation	*	--	*	*	2	--	5.6
	Conventional Electricity Generation	--	0	*	1	0	0	7.7
	Other Nonprocess Use	*	*	*	*	*	0	38.9
	End Use Not Reported	7	*	*	6	*	0	20.9
3011	**Tires and Inner Tubes**							
	RSE Column Factors:	0.8	0.8	1.3	1.2	1.2	1.0	
	TOTAL INPUTS	16	5	1	23	*	2	10.3
	Indirect Uses-Boiler Fuel	*	W	W	20	*	2	13.7
	Direct Uses-Total Process	12	W	W	1	*	0	11.0
	Process Heating	*	W	0	*	*	0	18.2
	Process Cooling and Refrigeration	1	0	0	0	0	0	11.5
	Machine Drive	11	0	W	*	*	0	10.1
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	*	0	0	8.4
	Direct Uses-Total Nonprocess	4	W	W	1	W	*	9.4
	Facility Heating, Ventilation, and Air Conditioning[e]	2	W	0	1	W	W	8.2
	Facility Lighting	2	--	--	--	--	--	1.3
	Facility Support	*	0	W	*	0	W	11.7
	Onsite Transportation	*	--	W	0	*	--	3.6
	Conventional Electricity Generation	--	0	W	0	0	0	3.2
	Other Nonprocess Use	0	0	W	*	0	0	7.1
	End Use Not Reported	1	W	W	1	W	0	11.4

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
308	**Miscellaneous Plastics Products, nec.**							
	RSE Column Factors:	0.7	1.1	1.4	1.0	1.3	0.7	
	TOTAL INPUTS	116	3	2	63	2	2	10.9
	Indirect Uses-Boiler Fuel	*	2	1	25	*	2	18.1
	Direct Uses-Total Process	90	1	W	19	1	0	12.1
	Process Heating	21	*	*	17	*	0	10.7
	Process Cooling and Refrigeration	9	0	*	*	W	0	20.0
	Machine Drive	59	1	W	1	*	0	20.5
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	1	0	*	1	W	0	34.9
	Direct Uses-Total Nonprocess	20	W	W	16	W	0	11.9
	Facility Heating, Ventilation, and Air Conditioning[e]	9	W	*	15	W	0	15.6
	Facility Lighting	8	--	--	--	--	--	1.3
	Facility Support	2	0	W	*	*	0	16.7
	Onsite Transportation	*	--	W	*	1	--	7.2
	Conventional Electricity Generation	--	0	W	1	0	0	7.2
	Other Nonprocess Use	*	0	W	*	*	0	38.5
	End Use Not Reported	6	W	*	4	W	0	27.9
31	**LEATHER and LEATHER PRODUCTS**							
	RSE Column Factors:	1.0	0.7	1.8	0.9	1.7	0.5	
	TOTAL INPUTS	3	2	W	W	W	0	15.0
	Indirect Uses-Boiler Fuel	*	2	*	2	W	0	25.2
	Direct Uses-Total Process	2	0	*	1	*	0	18.7
	Process Heating	*	0	*	1	*	0	23.0
	Process Cooling and Refrigeration	*	0	0	*	0	0	34.1
	Machine Drive	2	0	0	*	*	0	18.1
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	*	0	*	0	0	0	0.0
	Direct Uses-Total Nonprocess	1	*	*	W	*	0	17.2
	Facility Heating, Ventilation, and Air Conditioning[e]	*	*	*	W	*	0	20.9
	Facility Lighting	*	--	--	--	--	--	1.6
	Facility Support	*	0	*	1	*	0	26.4
	Onsite Transportation	*	--	*	0	*	--	5.2
	Conventional Electricity Generation	--	0	0	0	0	0	1.0
	Other Nonprocess Use	*	0	0	0	0	0	0.0
	End Use Not Reported	*	*	W	W	*	0	40.0
32	**STONE, CLAY and GLASS PRODUCTS**							
	RSE Column Factors:	0.7	1.0	1.4	0.8	1.6	0.8	
	TOTAL INPUTS	124	7	23	431	4	274	6.8
	Indirect Uses-Boiler Fuel	1	1	1	20	*	*	24.1
	Direct Uses-Total Process	105	7	8	380	2	263	7.7
	Process Heating	29	7	5	369	2	263	8.5
	Process Cooling and Refrigeration	3	0	*	1	W	0	21.6
	Machine Drive	73	*	4	9	*	*	19.1
	Electro-Chemical Processes	*	--	--	--	--	--	1.9
	Other Process Use	*	0	*	1	W	0	19.9
	Direct Uses-Total Nonprocess	14	*	11	22	1	*	7.9
	Facility Heating, Ventilation, and Air Conditioning[e]	6	*	*	18	*	*	11.7
	Facility Lighting	7	--	--	--	--	--	1.3
	Facility Support	2	0	*	2	*	0	11.3
	Onsite Transportation	*	--	10	*	1	--	6.3
	Conventional Electricity Generation	--	0	*	1	*	0	10.6
	Other Nonprocess Use	*	0	*	*	*	0	33.4
	End Use Not Reported	4	*	2	10	*	10	23.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
3211	**Flat Glass**							
	RSE Column Factors:	0.9	1.1	1.5	0.9	1.5	0.5	
	TOTAL INPUTS	5	2	*	45	*	0	15.0
	Indirect Uses-Boiler Fuel	*	0	*	1	0	0	30.8
	Direct Uses-Total Process	4	2	*	42	*	0	18.6
	Process Heating	2	2	*	42	*	0	19.4
	Process Cooling and Refrigeration	*	0	*	*	0	0	26.7
	Machine Drive	2	0	*	*	*	0	27.0
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	*	0	*	0	23.8
	Direct Uses-Total Nonprocess	1	0	*	1	*	0	12.1
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	0	1	*	0	20.0
	Facility Lighting	*	--	--	--	--	--	1.5
	Facility Support	*	0	*	*	*	0	24.0
	Onsite Transportation	*	--	*	0	*	--	5.0
	Conventional Electricity Generation	--	0	*	0	0	0	3.9
	Other Nonprocess Use	*	0	0	0	0	0	47.7
	End Use Not Reported	*	0	0	0	*	0	33.7
3221	**Glass Containers**							
	RSE Column Factors:	1.2	0.9	1.7	0.8	1.4	0.5	
	TOTAL INPUTS	15	2	*	66	*	0	5.8
	Indirect Uses-Boiler Fuel	W	0	W	*	0	0	12.3
	Direct Uses-Total Process	13	2	W	62	*	0	6.5
	Process Heating	5	2	W	62	W	0	6.8
	Process Cooling and Refrigeration	W	0	0	0	0	0	8.3
	Machine Drive	8	0	*	*	W	0	11.1
	Electro-Chemical Processes	W	--	--	--	--	--	1.7
	Other Process Use	W	0	0	0	0	0	19.8
	Direct Uses-Total Nonprocess	W	0	W	3	W	0	5.4
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	W	3	W	0	8.9
	Facility Lighting	1	--	--	--	--	--	1.3
	Facility Support	W	0	*	1	0	0	7.7
	Onsite Transportation	W	--	W	0	*	--	4.4
	Conventional Electricity Generation	--	0	0	0	0	0	0.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	0	0	*	0	W	0	14.4
3229	**Pressed and Blown Glass, nec.**							
	RSE Column Factors:	1.2	1.0	1.5	0.9	1.3	0.5	
	TOTAL INPUTS	11	W	*	50	W	0	8.5
	Indirect Uses-Boiler Fuel	*	W	W	2	*	0	14.7
	Direct Uses-Total Process	9	W	W	47	*	0	10.2
	Process Heating	4	W	W	44	W	0	11.1
	Process Cooling and Refrigeration	1	0	0	0	0	0	5.8
	Machine Drive	5	0	*	2	W	0	10.3
	Electro-Chemical Processes	*	--	--	--	--	--	1.7
	Other Process Use	0	0	W	0	*	0	13.6
	Direct Uses-Total Nonprocess	2	0	*	2	W	0	6.5
	Facility Heating, Ventilation, and Air Conditioning[e]	1	0	0	2	W	0	7.8
	Facility Lighting	1	--	--	--	--	--	1.3
	Facility Support	W	0	W	*	0	0	11.8
	Onsite Transportation	W	--	W	*	*	--	4.2
	Conventional Electricity Generation	--	0	W	0	0	0	3.4
	Other Nonprocess Use	W	0	W	0	0	0	15.1
	End Use Not Reported	0	0	*	0	*	0	13.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
3241	**Cement, Hydraulic**							
	RSE Column Factors:	0.8	1.0	1.4	1.2	1.3	0.6	
	TOTAL INPUTS	38	1	5	25	*	202	11.7
	Indirect Uses-Boiler Fuel	*	0	*	1	0	0	33.5
	Direct Uses-Total Process	34	1	2	22	*	196	15.1
	Process Heating	3	1	2	21	*	196	18.5
	Process Cooling and Refrigeration	W	0	0	0	0	0	23.7
	Machine Drive	31	0	*	*	*	*	22.2
	Electro-Chemical Processes	0	--	--	--	--	--	0.9
	Other Process Use	W	0	0	0	0	0	55.2
	Direct Uses-Total Nonprocess	2	0	2	1	*	0	10.2
	Facility Heating, Ventilation, and Air Conditioning [e]	1	0	W	1	*	0	16.0
	Facility Lighting	1	--	--	--	--	--	1.4
	Facility Support	*	0	W	*	*	0	21.9
	Onsite Transportation	*	--	2	0	*	--	5.7
	Conventional Electricity Generation	--	0	W	*	0	0	11.3
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	2	0	*	1	*	6	28.1
3274	**Lime**							
	RSE Column Factors:	1.1	1.2	0.9	0.9	1.5	0.6	
	TOTAL INPUTS	4	1	1	13	*	66	18.3
	Indirect Uses-Boiler Fuel	0	0	*	0	0	0	53.4
	Direct Uses-Total Process	3	Q	1	11	*	62	20.9
	Process Heating	1	Q	*	11	*	62	22.4
	Process Cooling and Refrigeration	*	0	0	0	0	0	29.2
	Machine Drive	2	0	*	*	*	0	27.9
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	*	0	1	*	*	0	21.5
	Facility Heating, Ventilation, and Air Conditioning [e]	*	0	*	*	*	0	31.9
	Facility Lighting	*	--	--	--	--	--	1.6
	Facility Support	*	0	0	*	*	0	40.9
	Onsite Transportation	0	--	1	0	*	--	4.4
	Conventional Electricity Generation	--	0	0	0	0	0	0.9
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	*	*	1	*	4	34.9
3296	**Mineral Wool**							
	RSE Column Factors:	1.0	0.8	2.0	0.8	1.3	0.5	
	TOTAL INPUTS	12	W	*	37	W	0	9.9
	Indirect Uses-Boiler Fuel	*	W	*	1	*	0	19.1
	Direct Uses-Total Process	11	0	W	35	*	0	8.7
	Process Heating	7	0	W	W	*	0	9.2
	Process Cooling and Refrigeration	*	0	0	0	0	0	12.5
	Machine Drive	4	0	*	0	0	0	9.7
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	0	0	W	W	0	0	23.9
	Direct Uses-Total Nonprocess	1	0	W	1	W	0	8.7
	Facility Heating, Ventilation, and Air Conditioning [e]	*	0	W	1	W	0	13.4
	Facility Lighting	*	--	--	--	--	--	1.5
	Facility Support	*	0	*	*	0	0	12.3
	Onsite Transportation	*	--	W	0	*	--	4.8
	Conventional Electricity Generation	--	0	W	0	0	0	3.4
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	0	0	*	0	0	0	0.0

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
33	**PRIMARY METAL INDUSTRIES**							
	RSE Column Factors:	0.5	1.4	1.1	0.8	1.5	1.0	
	TOTAL INPUTS	521	43	12	801	5	52	6.8
	Indirect Uses-Boiler Fuel	1	30	1	95	*	42	10.7
	Direct Uses-Total Process	473	13	W	628	3	W	9.6
	Process Heating	125	13	3	604	3	W	11.5
	Process Cooling and Refrigeration	4	0	0	*	0	0	19.1
	Machine Drive	153	*	W	3	*	0	11.5
	Electro-Chemical Processes	188	--	--	--	--	--	1.0
	Other Process Use	2	0	*	19	*	0	22.0
	Direct Uses-Total Nonprocess	40	*	7	58	2	W	5.4
	Facility Heating, Ventilation, and Air Conditioning[e]	16	W	1	47	*	*	13.4
	Facility Lighting	18	--	--	--	--	--	1.2
	Facility Support	4	*	*	W	*	0	15.1
	Onsite Transportation	1	--	W	*	2	--	5.6
	Conventional Electricity Generation	--	0	W	W	*	W	3.6
	Other Nonprocess Use	1	W	W	1	*	0	24.9
	End Use Not Reported	7	0	W	21	*	W	19.4
331	**Blast Furnace and Basic Steel Products**							
	RSE Column Factors:	0.7	1.0	1.1	0.7	1.4	1.4	
	TOTAL INPUTS	205	42	W	518	W	39	10.7
	Indirect Uses-Boiler Fuel	1	29	1	67	W	34	13.4
	Direct Uses-Total Process	184	12	1	417	*	W	13.7
	Process Heating	79	12	1	396	W	W	15.5
	Process Cooling and Refrigeration	2	0	0	*	0	0	23.7
	Machine Drive	96	*	*	2	*	0	16.2
	Electro-Chemical Processes	5	--	--	--	--	--	1.5
	Other Process Use	2	0	*	19	W	0	26.5
	Direct Uses-Total Nonprocess	18	*	4	29	1	*	14.2
	Facility Heating, Ventilation, and Air Conditioning[e]	7	W	*	23	*	*	16.6
	Facility Lighting	9	--	--	--	--	--	1.3
	Facility Support	2	*	*	5	*	0	17.2
	Onsite Transportation	*	--	3	*	Q	--	3.2
	Conventional Electricity Generation	--	0	*	*	*	0	13.8
	Other Nonprocess Use	*	W	0	1	*	0	26.4
	End Use Not Reported	2	0	W	5	*	W	20.4
3312	**Blast Furnaces and Steel Mills**							
	RSE Column Factors:	0.8	1.1	1.0	0.8	1.1	1.1	
	TOTAL INPUTS	171	42	W	476	W	35	8.1
	Indirect Uses-Boiler Fuel	1	29	1	60	*	34	13.9
	Direct Uses-Total Process	155	12	1	388	*	W	10.0
	Process Heating	63	12	1	368	W	W	10.9
	Process Cooling and Refrigeration	2	0	0	*	0	0	20.6
	Machine Drive	85	*	W	2	*	0	14.1
	Electro-Chemical Processes	4	--	--	--	--	--	1.6
	Other Process Use	2	0	W	19	W	0	25.7
	Direct Uses-Total Nonprocess	15	*	3	24	*	0	8.8
	Facility Heating, Ventilation, and Air Conditioning[e]	5	W	*	18	*	0	14.1
	Facility Lighting	7	--	--	--	--	--	1.3
	Facility Support	2	0	0	4	*	0	14.6
	Onsite Transportation	*	--	3	0	*	--	3.8
	Conventional Electricity Generation	--	0	0	*	*	0	10.1
	Other Nonprocess Use	*	W	0	1	*	0	24.7
	End Use Not Reported	*	0	W	3	W	W	23.9

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
3313	**Electrometallurgical Products**							
	RSE Column Factors:	2.7	0.4	1.5	1.2	1.4	0.4	
	TOTAL INPUTS	16	0	*	3	*	Q	19.4
	Indirect Uses-Boiler Fuel	*0*	*0*	*0*	*	*0*	*0*	0.0
	Direct Uses-Total Process	15	0	*	2	*	Q	17.7
	Process Heating	14	0	0	2	*	Q	18.5
	Process Cooling and Refrigeration	*	0	0	0	0	0	0.0
	Machine Drive	1	0	*	0	*	0	15.0
	Electro-Chemical Processes	*	--	--	--	--	--	1.2
	Other Process Use	*	0	0	*	0	0	0.0
	Direct Uses-Total Nonprocess	1	0	*	*	*	0	20.4
	Facility Heating, Ventilation, and Air Conditioning *	*	0	*0*	*	*	*0*	18.3
	Facility Lighting	*	--	--	--	--	--	1.8
	Facility Support	*	0	0	*	0	0	16.8
	Onsite Transportation	0	--	*	0	*	--	8.4
	Conventional Electricity Generation	--	0	0	0	0	0	0.4
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	0	0	*	0	0	0.0
3321	**Gray and Ductile Iron Foundries**							
	RSE Column Factors:	1.1	0.9	1.4	0.7	1.2	0.9	
	TOTAL INPUTS	30	*	1	33	1	*	11.3
	Indirect Uses-Boiler Fuel	*	0	*	2	W	0	31.8
	Direct Uses-Total Process	24	*	*	21	*	*	16.9
	Process Heating	15	*	*	20	W	*	18.2
	Process Cooling and Refrigeration	*	0	0	0	0	0	16.6
	Machine Drive	10	*	*	*	W	0	26.9
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	*	0	*	*	W	0	35.2
	Direct Uses-Total Nonprocess	4	*	W	9	*	0	10.5
	Facility Heating, Ventilation, and Air Conditioning *	2	*	*	9	*	0	19.5
	Facility Lighting	2	--	--	--	--	--	1.5
	Facility Support	W	0	*	*	*	0	20.9
	Onsite Transportation	W	--	*	0	*	--	5.2
	Conventional Electricity Generation	--	0	W	0	0	0	5.2
	Other Nonprocess Use	*	0	0	0	*	0	34.2
	End Use Not Reported	1	0	W	Q	W	0	34.6
3331	**Primary Copper**							
	RSE Column Factors:	1.0	1.0	1.0	1.0	1.0	1.0	
	TOTAL INPUTS	8	W	W	22	W	W	1.0
	Indirect Uses-Boiler Fuel	0	0	0	8	0	W	1.0
	Direct Uses-Total Process	7	W	W	11	0	W	1.0
	Process Heating	1	W	W	11	0	W	1.0
	Process Cooling and Refrigeration	W	0	0	0	0	0	1.0
	Machine Drive	4	0	W	0	0	0	1.0
	Electro-Chemical Processes	1	--	--	--	--	--	1.0
	Other Process Use	W	0	0	*	0	0	1.0
	Direct Uses-Total Nonprocess	1	0	W	3	W	W	1.0
	Facility Heating, Ventilation, and Air Conditioning *	*	0	0	W	0	0	1.0
	Facility Lighting	*	--	--	--	--	--	1.0
	Facility Support	*	0	0	*	0	0	1.0
	Onsite Transportation	0	--	1	0	W	--	1.0
	Conventional Electricity Generation	--	0	W	W	0	W	1.0
	Other Nonprocess Use	0	0	W	0	0	0	1.0
	End Use Not Reported	*	0	W	0	0	0	1.0

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
3334	**Primary Aluminum**							
	RSE Column Factors:	0.9	0.9	1.0	1.5	0.9	0.9	
	TOTAL INPUTS	W	W	1	17	W	0	1.6
	Indirect Uses-Boiler Fuel	W	W	W	W	W	0	1.0
	Direct Uses-Total Process	178	0	W	14	*	0	1.5
	Process Heating	1	0	W	14	W	0	1.5
	Process Cooling and Refrigeration	W	0	0	0	0	0	1.1
	Machine Drive	5	0	W	*	W	0	1.3
	Electro-Chemical Processes	173	--	--	--	--	--	1.0
	Other Process Use	W	0	0	0	0	0	1.1
	Direct Uses-Total Nonprocess	W	0	1	1	W	0	1.1
	Facility Heating, Ventilation, and Air Conditioning[e]	2	0	0	*	*	0	0.9
	Facility Lighting	2	--	--	--	--	--	1.0
	Facility Support	W	0	0	*	*	0	0.9
	Onsite Transportation	W	--	1	0	W	--	1.2
	Conventional Electricity Generation	--	0	0	0	0	0	1.1
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	0	0	W	*	0	0.9
3339	**Primary Nonferrous Metals, nec.**							
	RSE Column Factors:	1.4	0.7	1.2	1.1	1.2	0.7	
	TOTAL INPUTS	17	W	W	12	*	8	14.6
	Indirect Uses-Boiler Fuel	*	W	*	W	*	8	23.6
	Direct Uses-Total Process	15	0	*	9	*	0	11.5
	Process Heating	6	0	W	9	*	0	13.4
	Process Cooling and Refrigeration	*	0	0	0	0	0	13.5
	Machine Drive	2	0	W	*	*	0	14.8
	Electro-Chemical Processes	7	--	--	--	--	--	1.5
	Other Process Use	0	0	0	0	0	0	0.0
	Direct Uses-Total Nonprocess	1	0	W	*	*	0	8.9
	Facility Heating, Ventilation, and Air Conditioning[e]	*	0	0	*	W	0	12.2
	Facility Lighting	*	--	--	--	--	--	1.4
	Facility Support	*	0	*	*	W	0	16.9
	Onsite Transportation	*	--	W	*	*	--	7.0
	Conventional Electricity Generation	--	0	0	0	0	0	0.7
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	1	0	*	W	*	0	20.4
3353	**Aluminum Sheet, Plate, and Foil**							
	RSE Column Factors:	1.2	0.6	1.3	0.8	1.2	1.0	
	TOTAL INPUTS	16	0	W	53	*	W	5.1
	Indirect Uses-Boiler Fuel	W	0	0	W	W	W	10.7
	Direct Uses-Total Process	15	0	*	47	*	0	5.0
	Process Heating	2	0	*	47	*	0	5.8
	Process Cooling and Refrigeration	W	0	0	0	0	0	4.9
	Machine Drive	13	0	0	0	0	0	3.2
	Electro-Chemical Processes	0	--	--	--	--	--	1.0
	Other Process Use	W	0	0	*	0	0	13.3
	Direct Uses-Total Nonprocess	W	0	W	3	W	0	4.4
	Facility Heating, Ventilation, and Air Conditioning[e]	1	0	W	3	W	0	7.1
	Facility Lighting	1	--	--	--	--	--	1.3
	Facility Support	*	0	*	*	*	0	8.0
	Onsite Transportation	W	--	*	0	W	--	3.0
	Conventional Electricity Generation	--	0	0	0	0	0	0.8
	Other Nonprocess Use	0	0	0	0	0	0	0.0
	End Use Not Reported	*	0	W	W	W	0	10.7

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
34	**FABRICATED METAL PRODUCTS**							
	RSE Column Factors:	0.9	0.8	1.6	0.9	1.5	0.6	
	TOTAL INPUTS	117	3	4	220	5	W	12.3
	Indirect Uses-Boiler Fuel	1	2	1	39	*	W	20.6
	Direct Uses-Total Process	81	W	W	119	1	W	10.3
	Process Heating	15	Q	1	115	1	W	12.1
	Process Cooling and Refrigeration	3	0	0	*	W	0	23.1
	Machine Drive	58	W	W	3	*	0	16.2
	Electro-Chemical Processes	5	--	--	--	--	--	1.6
	Other Process Use	1	0	*	1	W	0	27.5
	Direct Uses-Total Nonprocess	28	W	1	49	3	W	9.3
	Facility Heating, Ventilation, and Air Conditioning [e]	12	W	1	47	*	W	11.6
	Facility Lighting	13	--	--	--	--	--	1.3
	Facility Support	2	0	*	2	*	0	16.4
	Onsite Transportation	*	--	1	*	3	--	5.6
	Conventional Electricity Generation	--	0	*	*	0	0	1.1
	Other Nonprocess Use	*	0	*	*	*	0	29.4
	End Use Not Reported	7	*	W	13	*	0	24.1
35	**INDUSTRIAL MACHINERY and EQUIPMENT**							
	RSE Column Factors:	0.6	1.1	1.3	0.7	1.2	1.4	
	TOTAL INPUTS	110	W	4	110	3	11	8.5
	Indirect Uses-Boiler Fuel	1	2	1	21	*	9	15.7
	Direct Uses-Total Process	63	W	W	39	1	1	14.8
	Process Heating	11	*	W	36	1	1	17.4
	Process Cooling and Refrigeration	3	0	*	*	0	*	27.8
	Machine Drive	48	*	1	2	*	0	15.5
	Electro-Chemical Processes	*	--	--	--	--	--	1.5
	Other Process Use	1	W	1	1	*	0	30.6
	Direct Uses-Total Nonprocess	40	*	1	42	2	*	13.4
	Facility Heating, Ventilation, and Air Conditioning [e]	19	*	1	40	1	*	16.6
	Facility Lighting	16	--	--	--	--	--	1.3
	Facility Support	4	0	*	2	*	0	24.2
	Onsite Transportation	*	--	1	*	W	--	5.0
	Conventional Electricity Generation	--	0	*	*	W	0	12.5
	Other Nonprocess Use	*	*	*	*	*	0	41.2
	End Use Not Reported	7	*	W	8	*	0	21.9
357	**Computer and Office Equipment**							
	RSE Column Factors:	1.3	0.7	2.0	1.2	1.4	0.3	
	TOTAL INPUTS	14	W	*	5	W	0	18.5
	Indirect Uses-Boiler Fuel	*	W	*	4	*	0	26.3
	Direct Uses-Total Process	5	0	0	*	0	0	20.4
	Process Heating	Q	0	0	*	0	0	34.1
	Process Cooling and Refrigeration	1	0	0	*	0	0	22.3
	Machine Drive	3	0	0	*	0	0	21.6
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	*	0	0	*	0	0	18.6
	Direct Uses-Total Nonprocess	8	0	*	1	W	0	14.8
	Facility Heating, Ventilation, and Air Conditioning [e]	4	0	*	1	*	0	17.3
	Facility Lighting	2	--	--	--	--	--	1.5
	Facility Support	1	0	*	*	*	0	19.9
	Onsite Transportation	*	--	*	0	W	--	9.1
	Conventional Electricity Generation	--	0	*	0	0	0	4.1
	Other Nonprocess Use	*	0	*	*	*	0	24.9
	End Use Not Reported	1	0	0	*	0	0	34.6

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
36	**ELECTRONIC and OTHER ELECTRIC EQUIPMENT**							
	RSE Column Factors:	0.7	1.1	1.5	0.7	1.3	0.9	
	TOTAL INPUTS	113	3	2	87	2	W	10.6
	Indirect Uses-Boiler Fuel	1	2	1	29	*	W	15.6
	Direct Uses-Total Process	64	*	W	35	1	W	17.2
	Process Heating	19	*	*	33	1	W	17.8
	Process Cooling and Refrigeration	7	*	*	*	0	0	25.8
	Machine Drive	33	0	W	1	*	0	21.2
	Electro-Chemical Processes	5	--	--	--	--	--	1.5
	Other Process Use	1	0	W	1	*	0	31.0
	Direct Uses-Total Nonprocess	45	*	*	20	1	0	12.6
	Facility Heating, Ventilation, and Air Conditioning[e]	25	*	*	18	*	0	14.7
	Facility Lighting	15	--	--	--	--	--	1.3
	Facility Support	4	0	*	1	*	0	19.1
	Onsite Transportation	*	--	W	*	1	--	4.9
	Conventional Electricity Generation	--	0	W	*	W	0	1.5
	Other Nonprocess Use	*	0	*	*	W	0	27.8
	End Use Not Reported	4	*	W	3	*	0	27.7
37	**TRANSPORTATION EQUIPMENT**							
	RSE Column Factors:	0.6	1.2	1.3	0.7	1.4	1.2	
	TOTAL INPUTS	135	11	7	154	W	28	9.5
	Indirect Uses-Boiler Fuel	2	6	3	51	W	27	14.5
	Direct Uses-Total Process	77	1	W	63	1	*	16.0
	Process Heating	12	1	W	61	1	*	18.3
	Process Cooling and Refrigeration	6	0	*	*	0	0	28.9
	Machine Drive	53	0	1	1	*	0	19.4
	Electro-Chemical Processes	2	--	--	--	--	--	1.5
	Other Process Use	4	0	1	1	*	0	24.3
	Direct Uses-Total Nonprocess	52	5	2	34	2	*	14.5
	Facility Heating, Ventilation, and Air Conditioning[e]	24	2	*	30	1	*	18.8
	Facility Lighting	22	--	--	--	--	--	1.3
	Facility Support	5	W	*	2	*	0	19.7
	Onsite Transportation	1	--	1	*	2	--	5.0
	Conventional Electricity Generation	--	W	1	1	*	0	16.1
	Other Nonprocess Use	1	1	*	*	*	0	31.5
	End Use Not Reported	4	0	W	6	*	0	22.6
3711	**Motor Vehicles and Car Bodies**							
	RSE Column Factors:	1.2	0.6	2.0	0.8	1.8	0.5	
	TOTAL INPUTS	30	2	*	52	*	13	20.4
	Indirect Uses-Boiler Fuel	1	2	*	14	*	13	28.3
	Direct Uses-Total Process	19	0	*	29	*	0	14.7
	Process Heating	2	0	0	29	*	0	17.6
	Process Cooling and Refrigeration	2	0	0	*	0	0	14.1
	Machine Drive	13	0	*	*	0	0	19.4
	Electro-Chemical Processes	1	--	--	--	--	--	1.7
	Other Process Use	1	0	0	0	0	0	16.6
	Direct Uses-Total Nonprocess	9	0	*	9	*	0	14.8
	Facility Heating, Ventilation, and Air Conditioning[e]	5	0	*	8	*	0	16.3
	Facility Lighting	3	--	--	--	--	--	1.5
	Facility Support	1	0	*	1	*	0	21.3
	Onsite Transportation	*	--	*	0	*	--	7.6
	Conventional Electricity Generation	--	0	*	0	0	0	3.9
	Other Nonprocess Use	*	0	*	0	0	0	39.7
	End Use Not Reported	1	0	*	0	*	0	24.5

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
3714	**Motor Vehicle Parts and Accessories**							
	RSE Column Factors:	0.8	0.8	1.4	0.7	1.6	1.1	
	TOTAL INPUTS	46	W	1	54	W	10	17.2
	Indirect Uses-Boiler Fuel	*	W	1	15	W	10	21.3
	Direct Uses-Total Process	31	0	W	24	*	*	16.4
	Process Heating	5	0	W	24	*	*	18.8
	Process Cooling and Refrigeration	1	0	0	*	0	0	27.7
	Machine Drive	23	0	*	*	*	0	15.7
	Electro-Chemical Processes	*	--	--	--	--	--	1.6
	Other Process Use	1	0	*	*	*	0	35.2
	Direct Uses-Total Nonprocess	14	0	*	13	1	*	20.0
	Facility Heating, Ventilation, and Air Conditioning[e]	7	0	*	12	*	*	20.1
	Facility Lighting	6	--	--	--	--	--	1.4
	Facility Support	1	0	*	1	*	0	19.1
	Onsite Transportation	*	--	*	*	1	--	5.7
	Conventional Electricity Generation	--	0	*	0	*	0	5.8
	Other Nonprocess Use	*	0	*	0	*	0	39.0
	End Use Not Reported	1	0	W	2	*	0	32.1
38	**INSTRUMENTS and RELATED PRODUCTS**							
	RSE Column Factors:	0.7	0.9	1.2	0.9	1.7	0.9	
	TOTAL INPUTS	51	4	1	W	W	23	14.6
	Indirect Uses-Boiler Fuel	1	3	1	13	W	23	21.0
	Direct Uses-Total Process	21	*	*	5	*	0	14.3
	Process Heating	3	*	*	5	*	0	15.0
	Process Cooling and Refrigeration	4	0	0	*	0	0	24.4
	Machine Drive	13	0	*	*	*	0	16.0
	Electro-Chemical Processes	*	--	--	--	--	--	1.5
	Other Process Use	1	0	*	*	*	0	35.3
	Direct Uses-Total Nonprocess	24	*	1	9	*	0	17.9
	Facility Heating, Ventilation, and Air Conditioning[e]	12	*	*	8	*	0	19.6
	Facility Lighting	9	--	--	--	--	--	1.3
	Facility Support	3	0	*	1	*	0	17.3
	Onsite Transportation	*	--	*	*	*	--	5.9
	Conventional Electricity Generation	--	0	*	*	*	0	10.4
	Other Nonprocess Use	1	0	*	*	*	0	21.5
	End Use Not Reported	Q	0	*	W	*	*	21.4
3841	**Surgical and Medical Instruments**							
	RSE Column Factors:	0.9	0.9	1.8	1.0	1.6	0.5	
	TOTAL INPUTS	5	*	*	2	*	0	19.4
	Indirect Uses-Boiler Fuel	*	*	*	1	*	0	23.2
	Direct Uses-Total Process	2	0	*	*	*	0	18.7
	Process Heating	*	0	*	*	*	0	22.5
	Process Cooling and Refrigeration	*	0	0	*	0	0	11.4
	Machine Drive	1	0	*	*	*	0	21.9
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	*	0	*	*	0	0	31.9
	Direct Uses-Total Nonprocess	3	0	*	1	*	0	13.8
	Facility Heating, Ventilation, and Air Conditioning[e]	1	0	*	1	*	0	14.6
	Facility Lighting	1	--	--	--	--	--	1.4
	Facility Support	*	0	*	*	*	0	17.7
	Onsite Transportation	*	--	*	0	*	--	3.4
	Conventional Electricity Generation	--	0	*	0	*	0	7.7
	Other Nonprocess Use	*	0	0	0	*	0	31.6
	End Use Not Reported	*	0	*	*	*	0	28.2

See footnotes at end of table.

Table A10. Selected Combustible Inputs of Energy for Heat, Power, and Electricity Generation and Net Demand for Electricity by Fuel Type and End Use, 1994: Part 2 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	End-Use Categories	Net Demand for Electricity[b]	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel[c]	Natural Gas[d]	LPG	Coal (excluding Coal Coke and Breeze)	RSE Row Factors
39	**MISC. MANUFACTURING INDUSTRIES**							
	RSE Column Factors:	1.1	0.5	1.6	0.9	1.6	0.7	
	TOTAL INPUTS	19	1	1	19	W	1	19.6
	Indirect Uses-Boiler Fuel	*	1	*	5	W	1	30.2
	Direct Uses-Total Process	10	*	W	7	*	0	12.9
	Process Heating	2	*	W	6	*	0	14.8
	Process Cooling and Refrigeration	1	0	0	W	0	0	11.3
	Machine Drive	7	0	*	*	*	0	18.5
	Electro-Chemical Processes	*	--	--	--	--	--	1.8
	Other Process Use	*	0	*	W	*	0	33.5
	Direct Uses-Total Nonprocess	7	*	Q	5	*	0	13.0
	Facility Heating, Ventilation, and Air Conditioning[e]	3	*	*	5	*	0	14.6
	Facility Lighting	3	--	--	--	--	--	1.6
	Facility Support	1	0	*	*	*	0	20.1
	Onsite Transportation	*	--	*	*	*	--	5.2
	Conventional Electricity Generation	--	0	*	*	0	0	5.0
	Other Nonprocess Use	*	0	0	*	0	0	33.1
	End Use Not Reported	1	*	W	1	*	0	25.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Net Demand for Electricity" is the sum of purchases, transfers in, and total onsite electricity generation, minus sales and transfers offsite. It is the total amount of electricity used by establishments. "Net Demand for Electricity" is not directly comparable with "Net Electricity" which specifically excludes electricity generated onsite by combustible energy sources.

[c] Includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

[d] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

[e] Excludes steam and hot water.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

-- Estimation of energy input is not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A11. Components of Net Demand for Electricity by Census Region and Industry Group, 1994: Part 1

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Purchases	Transfers In[b]	Total Onsite Generation[c]	Sales and/or Transfers Offsite	Net Demand for Electricity[d]	RSE Row Factors
		Total United States					
	RSE Column Factors:	0.4	2.3	1.6	2.0	0.4	
20	Food and Kindred Products	W	W	6,962	1,829	64,877	9.5
21	Tobacco Products	1,259	0	W	W	1,572	25.8
22	Textile Mill Products	32,515	177	W	W	33,124	16.6
23	Apparel and Other Textile Products	W	W	Q	Q	7,748	30.1
24	Lumber and Wood Products	W	W	1,977	1,041	21,767	8.2
25	Furniture and Fixtures	6,678	0	W	W	6,671	15.4
26	Paper and Allied Products	71,514	735	58,837	9,250	121,835	4.0
27	Printing and Publishing	W	W	W	W	17,422	15.2
28	Chemicals and Allied Products	156,267	3,959	46,802	7,744	199,284	6.0
29	Petroleum and Coal Products	W	W	14,550	1,939	49,990	6.0
30	Rubber and Misc. Plastics Products	43,732	Q	118	29	43,865	12.4
31	Leather and Leather Products	827	0	W	W	834	27.3
32	Stone, Clay and Glass Products	W	W	W	W	36,386	12.5
33	Primary Metal Industries	W	W	8,284	5,137	152,740	2.8
34	Fabricated Metal Products	33,833	68	W	W	34,387	16.0
35	Industrial Machinery and Equipment	W	W	W	W	32,203	15.3
36	Electronic and Other Electric Equipment	W	W	W	W	33,219	14.9
37	Transportation Equipment	W	W	744	225	39,517	10.9
38	Instruments and Related Products	13,494	0	1,338	15	14,817	21.0
39	Misc. Manufacturing Industries	5,575	0	*	0	5,576	21.9
	Total	788,070	15,533	142,450	28,221	917,832	2.2
		Northeast Census Region					
	RSE Column Factors:	0.4	2.2	1.5	1.7	0.4	
20	Food and Kindred Products	6,292	0	W	W	6,583	13.3
21	Tobacco Products	20	0	0	0	20	57.1
22	Textile Mill Products	1,667	0	W	W	W	15.5
23	Apparel and Other Textile Products	W	W	0	0	2,035	92.7
24	Lumber and Wood Products	1,212	0	90	Q	1,287	25.8
25	Furniture and Fixtures	424	0	W	W	W	25.7
26	Paper and Allied Products	W	W	W	W	17,237	8.2
27	Printing and Publishing	W	W	W	0	W	16.6
28	Chemicals and Allied Products	11,312	99	W	W	12,395	12.3
29	Petroleum and Coal Products	3,451	0	W	W	3,938	11.7
30	Rubber and Misc. Plastics Products	W	W	55	Q	6,528	14.0
31	Leather and Leather Products	242	0	W	W	W	38.0
32	Stone, Clay and Glass Products	W	W	W	W	W	12.8
33	Primary Metal Industries	W	W	1,793	438	19,564	10.5
34	Fabricated Metal Products	W	W	W	W	W	18.2
35	Industrial Machinery and Equipment	W	W	W	W	W	19.7
36	Electronic and Other Electric Equipment	W	W	*	0	7,358	22.0
37	Transportation Equipment	3,567	0	W	W	4,026	17.5
38	Instruments and Related Products	3,746	0	W	0	W	24.2
39	Misc. Manufacturing Industries	1,673	0	0	0	1,673	26.2
	Total	95,488	794	16,663	4,108	108,836	5.0

See footnotes at end of table.

Table A11. Components of Net Demand for Electricity by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Purchases	Transfers In[b]	Total Onsite Generation[c]	Sales and/or Transfers Offsite	Net Demand for Electricity[d]	RSE Row Factors
		Midwest Census Region					
	RSE Column Factors:	0.5	2.0	1.5	1.6	0.5	
20	Food and Kindred Products	W	W	W	W	26,105	9.3
21	Tobacco Products	W	0	0	0	W	83.1
22	Textile Mill Products	W	0	0	0	W	32.8
23	Apparel and Other Textile Products	785	0	Q	0	797	32.8
24	Lumber and Wood Products	3,124	0	159	149	3,134	16.8
25	Furniture and Fixtures	2,236	0	W	W	W	22.2
26	Paper and Allied Products	W	W	6,914	972	21,830	9.0
27	Printing and Publishing	5,975	0	0	0	5,975	13.1
28	Chemicals and Allied Products	40,189	245	W	W	41,610	13.6
29	Petroleum and Coal Products	W	W	W	W	8,566	11.4
30	Rubber and Misc. Plastics Products	W	W	52	Q	16,308	17.0
31	Leather and Leather Products	W	0	W	0	326	37.2
32	Stone, Clay and Glass Products	9,722	0	W	0	W	14.1
33	Primary Metal Industries	W	W	3,817	645	54,548	5.8
34	Fabricated Metal Products	17,194	0	W	W	17,130	21.7
35	Industrial Machinery and Equipment	W	W	W	W	14,929	14.0
36	Electronic and Other Electric Equipment	W	W	W	W	8,578	16.8
37	Transportation Equipment	W	W	190	136	17,731	17.2
38	Instruments and Related Products	2,487	0	W	W	W	21.4
39	Misc. Manufacturing Industries	966	0	0	0	966	30.6
	Total	233,566	5,937	16,333	2,306	253,530	4.5
		South Census Region					
	RSE Column Factors:	0.5	2.2	1.5	1.5	0.4	
20	Food and Kindred Products	W	W	1,397	234	20,678	10.2
21	Tobacco Products	W	0	W	W	W	25.4
22	Textile Mill Products	29,946	177	W	W	30,488	18.5
23	Apparel and Other Textile Products	W	W	0	Q	4,262	15.5
24	Lumber and Wood Products	W	W	226	89	9,613	13.3
25	Furniture and Fixtures	3,354	0	32	0	3,386	18.6
26	Paper and Allied Products	30,216	106	36,231	1,909	64,644	5.7
27	Printing and Publishing	6,096	0	W	0	W	21.5
28	Chemicals and Allied Products	91,340	3,148	42,162	6,547	130,102	6.9
29	Petroleum and Coal Products	W	W	8,870	707	26,829	7.3
30	Rubber and Misc. Plastics Products	17,283	*	*	Q	17,270	11.4
31	Leather and Leather Products	W	0	0	0	W	42.1
32	Stone, Clay and Glass Products	W	W	W	W	14,620	10.6
33	Primary Metal Industries	W	W	W	W	49,480	3.9
34	Fabricated Metal Products	W	W	W	0	W	11.1
35	Industrial Machinery and Equipment	8,813	0	3	0	8,816	14.0
36	Electronic and Other Electric Equipment	11,194	0	W	0	W	13.3
37	Transportation Equipment	W	W	W	W	11,222	16.4
38	Instruments and Related Products	4,049	0	W	0	W	42.7
39	Misc. Manufacturing Industries	1,959	0	*	0	1,960	28.0
	Total	339,087	7,539	92,015	13,893	424,747	3.3

See footnotes at end of table.

Table A11. Components of Net Demand for Electricity by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Purchases	Transfers In[b]	Total Onsite Generation[c]	Sales and/or Transfers Offsite	Net Demand for Electricity[d]	RSE Row Factors
		West Census Region					
	RSE Column Factors:	0.5	1.5	1.5	2.0	0.5	
20	Food and Kindred Products	10,449	0	2,535	1,472	11,511	13.0
21	Tobacco Products	0	0	0	0	0	0.0
22	Textile Mill Products	W	0	W	0	W	33.7
23	Apparel and Other Textile Products	654	0	0	0	654	36.3
24	Lumber and Wood Products	W	W	1,502	788	7,733	11.8
25	Furniture and Fixtures	664	0	0	0	664	34.2
26	Paper and Allied Products	W	W	W	W	18,125	8.7
27	Printing and Publishing	2,183	0	W	W	W	16.9
28	Chemicals and Allied Products	13,426	466	2,198	913	15,176	11.7
29	Petroleum and Coal Products	W	W	W	W	10,657	9.9
30	Rubber and Misc. Plastics Products	3,749	0	Q	0	3,759	14.9
31	Leather and Leather Products	W	0	0	0	W	72.6
32	Stone, Clay and Glass Products	6,404	Q	W	W	6,651	15.5
33	Primary Metal Industries	W	W	W	W	29,147	4.4
34	Fabricated Metal Products	W	W	0	0	3,326	14.9
35	Industrial Machinery and Equipment	3,848	2	W	W	W	26.6
36	Electronic and Other Electric Equipment	6,027	0	W	0	W	17.1
37	Transportation Equipment	6,487	0	51	0	6,538	18.6
38	Instruments and Related Products	3,212	0	W	W	3,222	15.9
39	Misc. Manufacturing Industries	978	0	0	0	978	49.1
	Total	119,930	1,263	17,439	7,914	130,719	4.6

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Transfers In" are the quantities purchased by a central purchasing agent or other establishment of the same company.

[c] "Onsite Generation" includes cogeneration, generation by renewable energy sources, and conventional generation by combustible fuels.

[d] "Net Demand" is the sum of purchases, transfers in, and total onsite generation, minus sales and transfers offsite. It is the total amount of electricity used. It is not comparable to net electricity which excludes electricity generated onsite by combustible energy sources.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A11. Components of Net Demand for Electricity by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Purchases	Transfers In[b]	Total Onsite Generation[c]	Sales and/or Transfers Offsite	Net Demand for Electricity[d]	RSE Row Factors
	RSE Column Factors:	0.5	1.9	1.4	1.6	0.5	
20	Food and Kindred Products	W	W	6,962	1,829	64,877	9.5
2011	*Meat Packing Plants*	3,924	0	6	0	3,930	20.9
2033	*Canned Fruits and Vegetables*	1,490	0	461	58	1,893	18.4
2037	*Frozen Fruits and Vegetables*	W	W	91	0	2,992	15.4
2046	*Wet Corn Milling*	5,175	556	1,665	70	7,327	19.2
2051	*Bread, Cake, and Related Products*	2,436	0	54	0	2,490	19.1
2061	*Cane Sugar, Except Refining*	156	0	851	331	675	11.1
2062	*Cane Sugar Refining*	W	W	311	3	436	26.7
2063	*Beet Sugar*	437	0	W	W	947	4.3
2075	*Soybean Oil Mills*	W	W	W	W	2,248	1.0
2082	*Malt Beverages*	2,323	0	W	W	2,975	5.2
21	Tobacco Products	1,259	0	W	W	1,572	24.6
22	Textile Mill Products	32,515	177	W	W	33,124	16.6
23	Apparel and Other Textile Products	W	W	Q	Q	7,748	22.7
24	Lumber and Wood Products	W	W	1,977	1,041	21,767	8.2
2421	*Sawmills and Planing Mills, General*	W	W	1,347	592	7,902	10.3
2436	*Softwood Veneer and Plywood*	W	W	Q	Q	2,881	18.0
2493	*Reconstituted Wood Products*	W	W	139	142	4,592	14.7
25	Furniture and Fixtures	6,678	0	W	W	6,671	14.7
2511	*Wood Furniture, Except Upholstered*	2,184	0	68	38	2,214	19.8
26	Paper and Allied Products	71,514	735	58,837	9,250	121,835	4.0
2611	*Pulp Mills*	2,560	2	5,649	469	7,743	14.0
2621	*Paper Mills*	37,503	404	33,907	5,837	65,978	6.0
2631	*Paperboard Mills*	16,399	0	19,163	2,919	32,643	3.3
27	Printing and Publishing	W	W	W	W	17,422	14.5
28	Chemicals and Allied Products	156,267	3,959	46,802	7,744	199,284	6.0
2812	*Alkalies and Chlorine*	W	W	W	W	17,556	7.4
2813	*Industrial Gases*	22,816	709	512	0	24,038	17.3
2816	*Inorganic Pigments*	2,393	*	0	0	2,393	15.3
2819	*Industrial Inorganic Chemicals, nec.*	42,786	75	3,076	622	45,315	20.3
2821	*Plastics Materials and Resins*	16,832	144	4,652	568	21,060	9.3
2822	*Synthetic Rubber*	2,384	93	160	200	2,436	22.5
2823	*Cellulosic Manmade Fibers*	437	0	W	W	898	1.2
2824	*Organic Fibers, Noncellulosic*	W	W	W	W	8,599	7.3
2861	*Gum and Wood Chemicals*	W	W	0	0	211	7.9
2865	*Cyclic Crudes and Intermediates*	4,653	141	818	5	5,607	19.5
2869	*Industrial Organic Chemicals, nec.*	20,528	2,009	25,594	3,751	44,380	9.3
2873	*Nitrogenous Fertilizers*	3,831	0	688	14	4,505	16.5
2874	*Phosphatic Fertilizers*	2,185	0	2,963	1,053	4,095	4.4
2895	*Carbon Black*	571	0	W	W	571	13.9
29	Petroleum and Coal Products	W	W	14,550	1,939	49,990	6.0
2911	*Petroleum Refining*	W	W	13,859	1,435	47,194	5.8
30	Rubber and Misc. Plastics Products	43,732	Q	118	29	43,865	11.8
3011	*Tires and Inner Tubes*	4,664	0	0	0	4,664	8.2
308	*Miscellaneous Plastics Products, nec.*	33,988	*	110	Q	34,071	12.8
31	Leather and Leather Products	827	0	W	W	834	23.9
32	Stone, Clay and Glass Products	W	W	W	W	36,386	12.5
3211	*Flat Glass*	1,468	0	1	0	1,469	21.0
3221	*Glass Containers*	4,268	0	0	0	4,268	8.2
3229	*Pressed and Blown Glass, nec.*	W	W	W	W	3,235	11.5
3241	*Cement, Hydraulic*	10,789	0	273	5	11,057	17.6
3274	*Lime*	1,151	0	0	0	1,151	24.7
3296	*Mineral Wool*	3,386	Q	0	0	3,401	14.4
33	Primary Metal Industries	W	W	8,284	5,137	152,740	2.8
331	*Blast Furnace and Basic Steel Products*	55,214	0	W	W	59,978	8.9
3312	*Blast Furnaces and Steel Mills*	45,463	0	W	W	50,228	7.9
3313	*Electrometallurgical Products*	4,797	0	0	Q	4,796	68.0
3321	*Gray and Ductile Iron Foundries*	W	W	Q	0	8,823	16.2
3331	*Primary Copper*	W	W	626	0	2,207	1.1
3334	*Primary Aluminum*	W	W	0	W	W	1.1
3339	*Primary Nonferrous Metals, nec.*	4,205	0	W	W	5,073	18.1
3353	*Aluminum Sheet, Plate, and Foil*	W	W	0	0	4,835	7.5

See footnotes at end of table.

Table A11. Components of Net Demand for Electricity by Industry Group and Selected Industries, 1994: Part 2 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Purchases	Transfers In[b]	Total Onsite Generation[c]	Sales and/or Transfers Offsite	Net Demand for Electricity[d]	RSE Row Factors
	RSE Column Factors:	0.5	1.9	1.4	1.6	0.5	
34	Fabricated Metal Products	33,833	68	W	W	34,387	16.0
35	Industrial Machinery and Equipment	W	W	W	W	32,203	15.3
357	*Computer and Office Equipment*	4,178	2	1	0	4,180	26.8
36	Electronic and Other Electric Equipment	W	W	W	W	33,219	14.3
37	Transportation Equipment	W	W	744	225	39,517	10.9
3711	*Motor Vehicles and Car Bodies*	8,863	0	W	W	8,846	23.6
3714	*Motor Vehicle Parts and Accessories*	W	W	189	136	13,606	16.6
38	Instruments and Related Products	13,494	0	1,338	15	14,817	20.0
3841	*Surgical and Medical Instruments*	1,347	0	0	0	1,347	16.5
39	Misc. Manufacturing Industries	5,575	0	*	0	5,576	19.1
	Total	788,070	15,533	142,450	28,221	917,832	2.2

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Transfers In" are the quantities purchased by a central purchasing agent or other establishment of the same company.
[c] "Onsite Generation" includes cogeneration, generation by renewable energy sources, and conventional generation by combustible fuels.
[d] "Net Demand" is the sum of purchases, transfers in, and total onsite generation, minus sales and transfers offsite. It is the total amount of electricity used. It is not comparable to net electricity which excludes electricity generated onsite by combustible energy sources.

NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A12. Components of Onsite Electricity Generation by Census Region and Industry Group, 1994: Part 1

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total	Cogeneration[b]	Renewables (excluding Wood and Other Biomass)[c]	Other[d]	RSE Row Factors
		Total United States				
	RSE Column Factors:	0.8	0.8	1.6	1.0	
20	Food and Kindred Products	6,962	6,754	90	118	11.2
21	Tobacco Products	W	W	0	0	40.3
22	Textile Mill Products	W	510	W	0	37.9
23	Apparel and Other Textile Products	Q	Q	0	0	0.0
24	Lumber and Wood Products	1,977	1,930	Q	Q	18.2
25	Furniture and Fixtures	W	W	0	0	33.8
26	Paper and Allied Products	58,837	50,936	2,480	5,421	4.9
27	Printing and Publishing	W	W	0	*	53.9
28	Chemicals and Allied Products	46,802	44,181	0	2,620	8.6
29	Petroleum and Coal Products	14,550	14,225	0	324	8.5
30	Rubber and Misc. Plastics Products	118	116	2	*	28.5
31	Leather and Leather Products	W	W	W	0	60.9
32	Stone, Clay and Glass Products	W	357	0	W	33.1
33	Primary Metal Industries	8,284	5,643	W	W	14.3
34	Fabricated Metal Products	W	W	0	W	47.6
35	Industrial Machinery and Equipment	W	153	W	13	30.8
36	Electronic and Other Electric Equipment	W	Q	W	W	25.8
37	Transportation Equipment	744	741	0	3	21.5
38	Instruments and Related Products	1,338	1,325	W	W	37.8
39	Misc. Manufacturing Industries	*	*	0	0	59.8
	Total	142,450	127,847	2,952	11,650	4.6
		Northeast Census Region				
	RSE Column Factors:	0.8	0.8	1.3	1.2	
20	Food and Kindred Products	W	358	0	W	24.2
21	Tobacco Products	0	0	0	0	0.0
22	Textile Mill Products	W	W	0	0	26.6
23	Apparel and Other Textile Products	0	0	0	0	0.0
24	Lumber and Wood Products	90	90	0	0	49.6
25	Furniture and Fixtures	W	W	0	0	37.5
26	Paper and Allied Products	W	7,612	W	W	9.3
27	Printing and Publishing	W	W	0	0	0.0
28	Chemicals and Allied Products	W	1,079	0	W	16.6
29	Petroleum and Coal Products	W	837	0	W	15.4
30	Rubber and Misc. Plastics Products	55	54	2	0	34.3
31	Leather and Leather Products	W	0	W	0	0.0
32	Stone, Clay and Glass Products	W	W	0	0	37.5
33	Primary Metal Industries	1,793	356	W	W	22.1
34	Fabricated Metal Products	W	W	0	W	44.7
35	Industrial Machinery and Equipment	W	74	W	0	43.7
36	Electronic and Other Electric Equipment	*	0	0	*	45.3
37	Transportation Equipment	W	W	0	0	27.8
38	Instruments and Related Products	W	1,311	W	W	38.3
39	Misc. Manufacturing Industries	0	0	0	0	0.0
	Total	16,663	12,462	1,832	2,369	9.7

See footnotes at end of table.

Table A12. Components of Onsite Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total	Cogeneration[b]	Renewables (excluding Wood and Other Biomass)[c]	Other[d]	RSE Row Factors
		Midwest Census Region				
	RSE Column Factors:	0.9	0.9	1.1	1.2	
20	Food and Kindred Products	W	2,662	0	W	13.7
21	Tobacco Products	0	0	0	0	0.0
22	Textile Mill Products	0	0	0	0	0.0
23	Apparel and Other Textile Products	Q	Q	0	0	0.0
24	Lumber and Wood Products	159	158	0	Q	27.9
25	Furniture and Fixtures	W	W	0	0	42.1
26	Paper and Allied Products	6,914	5,991	480	442	7.7
27	Printing and Publishing	0	0	0	0	0.0
28	Chemicals and Allied Products	W	1,230	0	W	10.9
29	Petroleum and Coal Products	W	1,001	0	W	14.1
30	Rubber and Misc. Plastics Products	52	52	0	0	42.1
31	Leather and Leather Products	W	W	0	0	57.0
32	Stone, Clay and Glass Products	W	W	0	W	37.6
33	Primary Metal Industries	3,817	2,753	0	1,064	15.5
34	Fabricated Metal Products	W	2	0	W	47.8
35	Industrial Machinery and Equipment	W	W	0	W	30.6
36	Electronic and Other Electric Equipment	W	W	0	W	34.4
37	Transportation Equipment	190	189	0	1	38.3
38	Instruments and Related Products	W	W	0	0	45.6
39	Misc. Manufacturing Industries	0	0	0	0	0.0
	Total	16,333	14,256	480	1,598	6.7
		South Census Region				
	RSE Column Factors:	0.7	0.7	1.8	1.1	
20	Food and Kindred Products	1,397	1,342	W	W	14.5
21	Tobacco Products	W	W	0	0	43.2
22	Textile Mill Products	W	W	W	0	41.7
23	Apparel and Other Textile Products	0	0	0	0	0.0
24	Lumber and Wood Products	226	226	0	0	30.7
25	Furniture and Fixtures	32	32	0	0	55.8
26	Paper and Allied Products	36,231	31,469	W	W	5.6
27	Printing and Publishing	W	*	0	W	63.4
28	Chemicals and Allied Products	42,162	39,709	0	2,452	9.5
29	Petroleum and Coal Products	8,870	8,758	0	112	15.5
30	Rubber and Misc. Plastics Products	*	0	0	*	0.0
31	Leather and Leather Products	0	0	0	0	0.0
32	Stone, Clay and Glass Products	W	0	0	W	20.8
33	Primary Metal Industries	W	1,889	0	W	23.9
34	Fabricated Metal Products	W	W	0	0	0.0
35	Industrial Machinery and Equipment	3	W	*	W	38.8
36	Electronic and Other Electric Equipment	W	W	0	W	29.4
37	Transportation Equipment	W	W	0	W	36.5
38	Instruments and Related Products	W	W	0	0	57.1
39	Misc. Manufacturing Industries	*	*	0	0	64.1
	Total	92,015	84,606	21	7,388	6.6

See footnotes at end of table.

Table A12. Components of Onsite Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total	Cogeneration[b]	Renewables (excluding Wood and Other Biomass)[c]	Other[d]	RSE Row Factors
		West Census Region				
	RSE Column Factors:	0.9	0.9	1.6	0.8	
20	Food and Kindred Products	2,535	2,391	W	W	18.2
21	Tobacco Products	0	0	0	0	0.0
22	Textile Mill Products	W	W	0	0	44.2
23	Apparel and Other Textile Products	0	0	0	0	0.0
24	Lumber and Wood Products	1,502	1,456	Q	*	19.8
25	Furniture and Fixtures	0	0	0	0	0.0
26	Paper and Allied Products	W	5,864	W	W	10.7
27	Printing and Publishing	W	W	0	W	50.0
28	Chemicals and Allied Products	2,198	2,164	0	34	19.0
29	Petroleum and Coal Products	W	3,630	0	W	13.8
30	Rubber and Misc. Plastics Products	Q	Q	0	0	0.0
31	Leather and Leather Products	0	0	0	0	0.0
32	Stone, Clay and Glass Products	W	237	0	W	42.4
33	Primary Metal Industries	W	645	0	W	7.9
34	Fabricated Metal Products	0	0	0	0	0.0
35	Industrial Machinery and Equipment	W	0	304	W	38.3
36	Electronic and Other Electric Equipment	W	W	W	W	0.0
37	Transportation Equipment	51	W	0	W	36.3
38	Instruments and Related Products	W	W	0	*	52.8
39	Misc. Manufacturing Industries	0	0	0	0	0.0
	Total	17,439	16,524	619	296	8.0

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] Cogeneration includes electricity generated from fossil fuels, such as natural gas, fuel oils, and coal; wood; and other biomass.
[c] Renewable energy includes solar power, wind power, hydropower, and geothermal power.
[d] "Other" is that electricity obtained from a generator fueled by combustible energy sources, such as diesel fuels or other fuel oils.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A12. Components of Onsite Electricity Generation by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total	Cogeneration[b]	Renewables (excluding Wood and Other Biomass)[c]	Other[d]	RSE Row Factors
	RSE Column Factors:	0.8	0.8	1.6	1.0	
20	Food and Kindred Products	6,962	6,754	90	118	11.2
2011	*Meat Packing Plants*	6	W	0	W	48.0
2033	*Canned Fruits and Vegetables*	461	432	0	30	38.4
2037	*Frozen Fruits and Vegetables*	91	W	0	W	30.2
2046	*Wet Corn Milling*	1,665	1,665	0	0	24.2
2051	*Bread, Cake, and Related Products*	54	54	0	*	44.5
2061	*Cane Sugar, Except Refining*	851	747	W	W	14.7
2062	*Cane Sugar Refining*	311	311	0	0	25.4
2063	*Beet Sugar*	W	474	0	W	4.4
2075	*Soybean Oil Mills*	W	W	0	0	1.3
2082	*Malt Beverages*	W	644	0	W	4.7
21	Tobacco Products	W	W	0	0	39.4
22	Textile Mill Products	W	510	W	0	37.5
23	Apparel and Other Textile Products	Q	Q	0	0	0.0
24	Lumber and Wood Products	1,977	1,930	Q	Q	17.8
2421	*Sawmills and Planing Mills, General*	1,347	1,346	0	Q	15.3
2436	*Softwood Veneer and Plywood*	Q	Q	13	0	23.4
2493	*Reconstituted Wood Products*	139	139	0	*	28.5
25	Furniture and Fixtures	W	W	0	0	33.1
2511	*Wood Furniture, Except Upholstered*	68	68	0	0	38.2
26	Paper and Allied Products	58,837	50,936	2,480	5,421	4.9
2611	*Pulp Mills*	5,649	5,552	97	0	13.5
2621	*Paper Mills*	33,907	29,574	2,349	1,984	6.8
2631	*Paperboard Mills*	19,163	15,696	W	W	4.7
27	Printing and Publishing	W	W	0	*	52.8
28	Chemicals and Allied Products	46,802	44,181	0	2,620	8.6
2812	*Alkalies and Chlorine*	W	W	0	0	12.7
2813	*Industrial Gases*	512	512	0	0	38.2
2816	*Inorganic Pigments*	0	0	0	0	0.0
2819	*Industrial Inorganic Chemicals, nec.*	3,076	2,794	0	283	29.9
2821	*Plastics Materials and Resins*	4,652	4,616	0	36	16.3
2822	*Synthetic Rubber*	160	160	0	0	38.2
2823	*Cellulosic Manmade Fibers*	W	W	0	0	1.3
2824	*Organic Fibers, Noncellulosic*	W	1,444	0	W	14.2
2861	*Gum and Wood Chemicals*	0	0	0	0	0.0
2865	*Cyclic Crudes and Intermediates*	818	817	0	1	32.3
2869	*Industrial Organic Chemicals, nec.*	25,594	23,522	0	2,072	12.3
2873	*Nitrogenous Fertilizers*	688	653	0	35	25.4
2874	*Phosphatic Fertilizers*	2,963	2,963	0	0	5.1
2895	*Carbon Black*	W	W	0	0	25.4
29	Petroleum and Coal Products	14,550	14,225	0	324	8.4
2911	*Petroleum Refining*	13,859	13,583	0	276	7.3
30	Rubber and Misc. Plastics Products	118	116	2	*	28.3
3011	*Tires and Inner Tubes*	0	0	0	0	0.0
308	*Miscellaneous Plastics Products, nec.*	110	110	0	*	31.8
31	Leather and Leather Products	W	W	W	0	59.7
32	Stone, Clay and Glass Products	W	357	0	W	32.4
3211	*Flat Glass*	1	0	0	1	33.5
3221	*Glass Containers*	0	0	0	0	0.0
3229	*Pressed and Blown Glass, nec.*	W	0	0	W	22.3
3241	*Cement, Hydraulic*	273	273	0	0	42.0
3274	*Lime*	0	0	0	0	0.0
3296	*Mineral Wool*	0	0	0	0	0.0
33	Primary Metal Industries	8,284	5,643	W	W	14.3
331	*Blast Furnace and Basic Steel Products*	W	5,172	0	W	14.1
3312	*Blast Furnaces and Steel Mills*	W	5,172	0	W	14.1
3313	*Electrometallurgical Products*	0	0	0	0	0.0
3321	*Gray and Ductile Iron Foundries*	Q	W	0	W	38.2
3331	*Primary Copper*	626	W	0	W	1.2
3334	*Primary Aluminum*	0	0	0	0	0.0
3339	*Primary Nonferrous Metals, nec.*	W	W	0	W	31.7
3353	*Aluminum Sheet, Plate, and Foil*	0	0	0	0	0.0

See footnotes at end of table.

Table A12. Components of Onsite Electricity Generation by Industry Group and Selected Industries, 1994: Part 2 (Continued)
(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total	Cogeneration[b]	Renewables (excluding Wood and Other Biomass)[c]	Other[d]	RSE Row Factors
	RSE Column Factors:	0.8	0.8	1.6	1.0	
34	Fabricated Metal Products	W	W	0	W	47.3
35	Industrial Machinery and Equipment	W	153	W	13	30.8
357	*Computer and Office Equipment*	1	0	*	1	41.2
36	Electronic and Other Electric Equipment	W	Q	W	W	26.4
37	Transportation Equipment	744	741	0	3	21.3
3711	*Motor Vehicles and Car Bodies*	W	W	0	0	43.3
3714	*Motor Vehicle Parts and Accessories*	189	189	0	*	52.2
38	Instruments and Related Products	1,338	1,325	W	W	37.8
3841	*Surgical and Medical Instruments*	0	0	0	0	0.0
39	Misc. Manufacturing Industries	*	*	0	0	58.5
	Total	142,450	127,847	2,952	11,650	4.6

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] Cogeneration includes electricity generated from fossil fuels, such as natural gas, fuel oils, and coal; wood; and other biomass.
[c] Renewable energy includes solar power, wind power, hydropower, and geothermal power.
[d] "Other" is that electricity obtained from a generator fueled by combustible energy sources, such as diesel fuels or other fuel oils.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A13. Onsite Electricity Cogeneration by Cogeneration Technologies, Industry Group, and Selected Industries, 1994: Part 1

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Cogeneration	Cogeneration Technologies[b]: Steam Turbines Supplied by Bed Boilers	Conventional Combustion Turbines with HR	Combined-Cycle Combustion Turbines	Internal Combustion Engines with HR	Steam Turbines Supplied by HR from HT Processes	Other	Combination of Two or More	Unknown or Unreported	RSE Row Factors
	RSE Column Factors:	0.6	0.7	0.9	2.0	1.2	1.2	1.2	0.7	1.2	
20	Food and Kindred Products	6,754	3,370	849	115	206	32	1,016	865	300	20.9
2011	*Meat Packing Plants*	W	W	0	0	0	0	0	0	0	47.7
2033	*Canned Fruits and Vegetables*	432	0	371	0	0	0	W	W	0	44.0
2037	*Frozen Fruits and Vegetables*	W	W	0	0	1	0	0	W	39	37.0
2046	*Wet Corn Milling*	1,665	1,453	W	0	0	0	0	W	0	33.2
2051	*Bread, Cake, and Related Products*	54	0	W	0	W	0	0	0	0	46.3
2061	*Cane Sugar, Except Refining*	747	543	0	0	0	5	48	W	56	22.2
2062	*Cane Sugar Refining*	311	220	0	0	0	0	0	W	41	43.0
2063	*Beet Sugar*	474	308	0	0	0	0	W	W	63	6.5
2075	*Soybean Oil Mills*	W	W	W	0	W	0	W	0	0	1.1
2082	*Malt Beverages*	644	W	W	0	0	0	0	W	0	4.8
21	Tobacco Products	W	W	0	0	0	0	0	0	0	47.7
22	Textile Mill Products	510	W	0	0	W	W	W	W	0	32.7
23	Apparel and Other Textile Products	Q	0	0	0	0	0	0	Q	0	0.0
24	Lumber and Wood Products	1,930	1,535	0	0	5	Q	W	287	47	29.9
2421	*Sawmills and Planing Mills, General*	1,346	W	0	0	5	0	W	198	47	28.9
2436	*Softwood Veneer and Plywood*	Q	Q	0	0	0	0	0	Q	0	0.0
2493	*Reconstituted Wood Products*	139	138	0	0	0	0	0	0	*	41.5
25	Furniture and Fixtures	W	W	0	0	0	0	25	W	Q	48.3
2511	*Wood Furniture, Except Upholstered*	68	W	0	0	0	0	Q	W	Q	53.5
26	Paper and Allied Products	50,936	30,917	2,199	573	W	1,680	W	11,662	1,650	7.9
2611	*Pulp Mills*	5,552	3,938	0	0	0	W	275	W	125	22.8
2621	*Paper Mills*	29,574	16,338	W	W	0	530	W	9,510	895	12.3
2631	*Paperboard Mills*	15,696	10,540	W	W	0	W	1,914	W	630	7.6
27	Printing and Publishing	W	0	W	0	W	0	*	0	0	50.1
28	Chemicals and Allied Products	44,181	4,629	W	0	W	1,683	W	34,338	631	11.9
2812	*Alkalies and Chlorine*	W	W	W	0	0	0	0	W	0	17.3
2813	*Industrial Gases*	512	0	0	0	0	256	0	256	0	47.6
2816	*Inorganic Pigments*	0	0	0	0	0	0	0	0	0	0.0
2819	*Industrial Inorganic Chemicals, nec.*	2,794	1,011	W	0	W	W	W	Q	363	24.7
2821	*Plastics Materials and Resins*	4,616	200	W	0	0	0	0	W	0	23.4
2822	*Synthetic Rubber*	160	160	0	0	0	0	0	0	0	46.2
2823	*Cellulosic Manmade Fibers*	W	W	0	0	0	0	0	0	0	1.5
2824	*Organic Fibers, Noncellulosic*	1,444	W	0	0	0	0	W	W	0	15.9
2861	*Gum and Wood Chemicals*	0	0	0	0	0	0	0	0	0	0.0
2865	*Cyclic Crudes and Intermediates*	817	45	27	0	0	35	0	710	0	38.8
2869	*Industrial Organic Chemicals, nec.*	23,522	727	W	0	0	W	W	21,072	10	18.8
2873	*Nitrogenous Fertilizers*	653	0	213	0	0	0	0	440	0	32.3
2874	*Phosphatic Fertilizers*	2,963	0	0	0	0	W	0	2,121	187	6.4
2895	*Carbon Black*	W	W	0	0	0	0	0	0	0	30.8
29	Petroleum and Coal Products	14,225	W	754	0	0	698	W	12,103	547	13.4
2911	*Petroleum Refining*	13,583	W	754	0	0	W	W	12,103	542	12.7
30	Rubber and Misc. Plastics Products	116	51	0	0	38	Q	Q	0	0	40.1
3011	*Tires and Inner Tubes*	0	0	0	0	0	0	0	0	0	0.0
308	*Miscellaneous Plastics Products, nec.*	110	45	0	0	38	Q	Q	0	0	41.8
31	Leather and Leather Products	W	W	0	0	0	0	0	0	0	76.9
32	Stone, Clay and Glass Products	357	W	W	0	W	W	0	0	36	39.4
3211	*Flat Glass*	0	0	0	0	0	0	0	0	0	0.0
3221	*Glass Containers*	0	0	0	0	0	0	0	0	0	0.0
3229	*Pressed and Blown Glass, nec.*	0	0	0	0	0	0	0	0	0	0.0
3241	*Cement, Hydraulic*	273	0	0	0	W	W	0	0	0	39.9
3274	*Lime*	0	0	0	0	0	0	0	0	0	0.0
3296	*Mineral Wool*	0	0	0	0	0	0	0	0	0	0.0
33	Primary Metal Industries	5,643	3,728	W	0	0	W	W	W	1,361	13.4
331	*Blast Furnace and Basic Steel Products*	5,172	3,728	0	0	0	W	W	0	1,361	20.5
3312	*Blast Furnaces and Steel Mills*	5,172	3,728	0	0	0	W	W	0	1,361	20.5
3313	*Electrometallurgical Products*	0	0	0	0	0	0	0	0	0	0.0
3321	*Gray and Ductile Iron Foundries*	W	0	0	0	0	0	W	0	0	0.0
3331	*Primary Copper*	W	0	0	0	0	W	0	W	0	1.3
3334	*Primary Aluminum*	0	0	0	0	0	0	0	0	0	0.0
3339	*Primary Nonferrous Metals, nec.*	W	0	W	0	0	0	0	0	0	38.9
3353	*Aluminum Sheet, Plate, and Foil*	0	0	0	0	0	0	0	0	0	0.0
34	Fabricated Metal Products	W	W	0	0	0	0	W	0	0	63.1
35	Industrial Machinery and Equipment	153	W	0	0	W	0	W	0	0	36.9
357	*Computer and Office Equipment*	0	0	0	0	0	0	0	0	0	0.0
36	Electronic and Other Electric Equipment	Q	0	0	0	Q	0	W	*	Q	0.0

See footnotes at end of table.

Table A13. Onsite Electricity Cogeneration by Cogeneration Technologies, Industry Group, and Selected Industries, 1994: Part 1 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Cogeneration	Cogeneration Technologies[b]								RSE Row Factors
			Steam Turbines Supplied by Bed Boilers	Conventional Combustion Turbines with HR	Combined-Cycle Combustion Turbines	Internal Combustion Engines with HR	Steam Turbines Supplied by HR from HT Processes	Other	Combination of Two or More	Unknown or Unreported	
	RSE Column Factors:	0.6	0.7	0.9	2.0	1.2	1.2	1.2	0.7	1.2	
37	Transportation Equipment	741	190	26	0	0	0	W	501	Q	37.4
3711	*Motor Vehicles and Car Bodies*	W	0	0	0	0	0	W	0	0	40.5
3714	*Motor Vehicle Parts and Accessories*	189	W	W	0	0	0	0	0	0	56.3
38	Instruments and Related Products	1,325	4	0	0	W	0	W	1,304	0	54.1
3841	*Surgical and Medical Instruments*	0	0	0	0	0	0	0	0	0	0.0
39	Misc. Manufacturing Industries	*	0	0	0	0	0	*	0	0	54.7
	Total	127,847	45,691	6,876	688	397	4,479	3,742	61,319	4,655	7.6

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] *If only one cogeneration technology was in place at an establishment, it was assumed that all cogenerated electricity was produced via that technology.*
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • HR = heat recovery. • HT = high temperature.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A13. Number of Establishments by Onsite Electricity Cogeneration, by Cogeneration Technologies, Industry Group, and Selected Industries, 1994: Part 2

SIC Code[a]	Industry Group and Industry	With Onsite Cogeneration[b]	Cogeneration Technologies[c]								RSE Row Factors
			Steam Turbines Supplied by Bed Boilers	Conventional Combustion Turbines with HR	Combined-Cycle Combustion Turbines	Internal Combustion Engines with HR	Steam Turbines Supplied by HR from HT Processes	Other	Combination of Two or More	Unknown or Unreported	
	RSE Column Factors:	0.6	0.6	1.0	1.8	1.1	1.1	1.3	0.8	1.4	
20	Food and Kindred Products	217	93	27	4	41	4	19	15	14	15.3
2011	*Meat Packing Plants*	W	W	0	0	0	0	0	0	0	37.3
2033	*Canned Fruits and Vegetables*	8	0	W	0	0	0	5	W	0	37.2
2037	*Frozen Fruits and Vegetables*	Q	W	0	0	W	0	0	W	W	0.0
2046	*Wet Corn Milling*	13	7	3	0	0	0	0	3	0	23.2
2051	*Bread, Cake, and Related Products*	17	0	7	0	Q	0	0	0	0	44.8
2061	*Cane Sugar, Except Refining*	26	18	0	0	0	W	3	W	W	14.2
2062	*Cane Sugar Refining*	12	9	0	0	0	0	0	W	W	26.3
2063	*Beet Sugar*	27	19	0	0	0	0	W	W	W	4.6
2075	*Soybean Oil Mills*	18	9	W	0	W	0	W	0	0	1.2
2082	*Malt Beverages*	21	15	W	0	0	0	0	W	0	13.7
21	Tobacco Products	10	10	0	0	0	0	0	0	0	15.3
22	Textile Mill Products	22	11	0	0	5	W	W	W	0	31.7
23	Apparel and Other Textile Products	W	0	0	0	0	0	0	W	0	0.0
24	Lumber and Wood Products	192	95	0	0	W	W	76	9	Q	30.6
2421	*Sawmills and Planing Mills, General*	123	41	0	0	W	0	Q	3	W	41.5
2436	*Softwood Veneer and Plywood*	17	11	0	0	0	0	0	6	0	34.5
2493	*Reconstituted Wood Products*	Q	W	0	0	0	0	0	0	W	0.0
25	Furniture and Fixtures	30	11	0	0	0	0	16	W	W	40.2
2511	*Wood Furniture, Except Upholstered*	21	4	0	0	0	0	13	W	W	45.6
26	Paper and Allied Products	265	162	14	4	W	15	17	38	W	5.2
2611	*Pulp Mills*	27	17	0	0	0	W	3	3	W	12.3
2621	*Paper Mills*	139	87	9	W	0	5	3	27	W	7.8
2631	*Paperboard Mills*	90	55	W	W	0	8	9	8	5	4.8
27	Printing and Publishing	5	0	W	0	W	0	W	0	0	32.9
28	Chemicals and Allied Products	208	63	26	0	W	16	19	77	W	11.9
2812	*Alkalies and Chlorine*	5	W	W	0	0	0	0	W	0	12.8
2813	*Industrial Gases*	5	0	0	0	0	W	0	W	0	25.2
2816	*Inorganic Pigments*	0	0	0	0	0	0	0	0	0	0.0
2819	*Industrial Inorganic Chemicals, nec.*	41	12	W	0	W	3	W	18	W	24.5
2821	*Plastics Materials and Resins*	13	7	3	0	0	0	0	3	0	15.0
2822	*Synthetic Rubber*	5	5	0	0	0	0	0	0	0	35.6
2823	*Cellulosic Manmade Fibers*	4	4	0	0	0	0	0	0	0	1.7
2824	*Organic Fibers, Noncellulosic*	12	7	0	0	0	0	W	W	0	10.4
2861	*Gum and Wood Chemicals*	0	0	0	0	0	0	0	0	0	0.0
2865	*Cyclic Crudes and Intermediates*	9	W	W	0	0	W	0	4	0	26.7
2869	*Industrial Organic Chemicals, nec.*	32	6	W	0	0	W	W	18	W	17.4
2873	*Nitrogenous Fertilizers*	9	0	3	0	0	0	0	6	0	21.4
2874	*Phosphatic Fertilizers*	19	0	0	0	0	W	0	11	W	4.1
2895	*Carbon Black*	W	W	0	0	0	0	0	0	0	25.4
29	Petroleum and Coal Products	70	4	7	0	0	8	Q	32	13	12.6
2911	*Petroleum Refining*	55	4	7	0	0	3	W	32	W	7.5
30	Rubber and Misc. Plastics Products	34	W	0	0	4	W	16	0	0	37.3
3011	*Tires and Inner Tubes*	0	0	0	0	0	0	0	0	0	0.0
308	*Miscellaneous Plastics Products, nec.*	33	W	0	0	4	W	16	0	0	38.8
31	Leather and Leather Products	W	W	0	0	0	0	0	0	0	71.2
32	Stone, Clay and Glass Products	16	W	W	0	W	W	0	0	8	39.3
3211	*Flat Glass*	0	0	0	0	0	0	0	0	0	0.0
3221	*Glass Containers*	0	0	0	0	0	0	0	0	0	0.0
3229	*Pressed and Blown Glass, nec.*	0	0	0	0	0	0	0	0	0	0.0
3241	*Cement, Hydraulic*	6	0	0	0	W	W	0	0	0	32.5
3274	*Lime*	0	0	0	0	0	0	0	0	0	0.0
3296	*Mineral Wool*	0	0	0	0	0	0	0	0	0	0.0
33	Primary Metal Industries	48	20	3	0	0	W	14	W	5	11.2
331	*Blast Furnace and Basic Steel Products*	28	20	0	0	0	W	W	0	5	11.7
3312	*Blast Furnaces and Steel Mills*	28	20	0	0	0	W	W	0	5	11.7
3313	*Electrometallurgical Products*	0	0	0	0	0	0	0	0	0	0.0
3321	*Gray and Ductile Iron Foundries*	W	0	0	0	0	0	W	0	0	0.0
3331	*Primary Copper*	6	0	0	0	0	W	0	W	0	1.3
3334	*Primary Aluminum*	0	0	0	0	0	0	0	0	0	0.0
3339	*Primary Nonferrous Metals, nec.*	W	0	W	0	0	0	0	0	0	44.2
3353	*Aluminum Sheet, Plate, and Foil*	0	0	0	0	0	0	0	0	0	0.0
34	Fabricated Metal Products	W	W	0	0	0	0	W	0	0	36.4
35	Industrial Machinery and Equipment	14	W	0	0	W	0	7	0	0	26.3
357	*Computer and Office Equipment*	0	0	0	0	0	0	0	0	0	0.0
36	Electronic and Other Electric Equipment	W	0	0	0	W	0	W	W	W	66.1

See footnotes at end of table.

Table A13. Number of Establishments by Onsite Electricity Cogeneration, by Cogeneration Technologies, Industry Group, and Selected Industries, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	With Onsite Cogeneration[b]	Cogeneration Technologies[c]: Steam Turbines Supplied by Bed Boilers	Conventional Combustion Turbines with HR	Combined-Cycle Combustion Turbines	Internal Combustion Engines with HR	Steam Turbines Supplied by HR from HT Processes	Other	Combination of Two or More	Unknown or Unreported	RSE Row Factors
	RSE Column Factors:	0.6	0.6	1.0	1.8	1.1	1.1	1.3	0.8	1.4	
37	Transportation Equipment	13	3	3	0	0	0	W	4	W	31.5
3711	*Motor Vehicles and Car Bodies*	W	0	0	0	0	0	W	0	0	0.0
3714	*Motor Vehicle Parts and Accessories*	W	W	W	0	0	0	0	0	0	49.9
38	Instruments and Related Products	12	W	0	0	W	0	8	W	0	45.8
3841	*Surgical and Medical Instruments*	0	0	0	0	0	0	0	0	0	0.0
39	Misc. Manufacturing Industries	W	0	0	0	0	0	W	0	0	39.1
	Total	1,306	490	81	8	69	64	228	243	122	12.1

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] For one or more cogeneration technologies to be considered in place at an establishment, then there must have been some nonzero quantity of cogenerated electricity produced onsite.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • HR = heat recovery. • HT = high temperature.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A14. Quantity of Electricity Sold to Utility and Nonutility Purchasers by Census Region and Industry Group, 1994: Part 1

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total Sold	Utility Purchaser[b]	Nonutility Purchaser[c]	RSE Row Factors
		Total United States			
	RSE Column Factors:	0.9	1.0	1.0	
20	Food and Kindred Products	1,829	W	W	28.0
21	Tobacco Products	W	W	0	34.7
22	Textile Mill Products	W	W	W	37.2
23	Apparel and Other Textile Products	Q	0	Q	0.0
24	Lumber and Wood Products	1,041	1,008	33	22.0
25	Furniture and Fixtures	W	38	W	40.8
26	Paper and Allied Products	9,250	8,061	1,188	6.9
27	Printing and Publishing	W	W	W	40.8
28	Chemicals and Allied Products	7,744	4,902	2,842	7.6
29	Petroleum and Coal Products	1,939	1,350	589	9.4
30	Rubber and Misc. Plastics Products	29	1	Q	42.9
31	Leather and Leather Products	W	W	0	0.0
32	Stone, Clay and Glass Products	W	W	W	29.1
33	Primary Metal Industries	5,137	W	W	6.5
34	Fabricated Metal Products	W	W	W	36.1
35	Industrial Machinery and Equipment	W	W	W	43.4
36	Electronic and Other Electric Equipment	W	0	W	44.8
37	Transportation Equipment	225	W	W	19.0
38	Instruments and Related Products	15	Q	15	34.1
39	Misc. Manufacturing Industries	0	0	0	0.0
	Total	28,221	21,909	6,312	4.6
		Northeast Census Region			
	RSE Column Factors:	1.0	1.0	1.0	
20	Food and Kindred Products	W	W	W	26.2
21	Tobacco Products	0	0	0	0.0
22	Textile Mill Products	W	0	W	33.5
23	Apparel and Other Textile Products	0	0	0	0.0
24	Lumber and Wood Products	Q	Q	0	0.0
25	Furniture and Fixtures	W	W	0	44.7
26	Paper and Allied Products	W	W	160	12.6
27	Printing and Publishing	0	0	0	0.0
28	Chemicals and Allied Products	W	W	W	27.2
29	Petroleum and Coal Products	W	W	W	16.5
30	Rubber and Misc. Plastics Products	Q	*	Q	0.0
31	Leather and Leather Products	W	W	0	0.0
32	Stone, Clay and Glass Products	W	0	W	0.0
33	Primary Metal Industries	438	W	W	17.0
34	Fabricated Metal Products	W	W	0	31.8
35	Industrial Machinery and Equipment	W	0	W	0.0
36	Electronic and Other Electric Equipment	0	0	0	0.0
37	Transportation Equipment	W	W	0	28.8
38	Instruments and Related Products	0	0	0	0.0
39	Misc. Manufacturing Industries	0	0	0	0.0
	Total	4,108	3,714	394	9.0

See footnotes at end of table.

Table A14. Quantity of Electricity Sold to Utility and Nonutility Purchasers by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total Sold	Utility Purchaser[b]	Nonutility Purchaser[c]	RSE Row Factors
		Midwest Census Region			
	RSE Column Factors:	0.9	1.1	1.1	
20	Food and Kindred Products	W	W	W	12.1
21	Tobacco Products	0	0	0	0.0
22	Textile Mill Products	0	0	0	0.0
23	Apparel and Other Textile Products	0	0	0	0.0
24	Lumber and Wood Products	149	149	0	26.8
25	Furniture and Fixtures	W	W	W	43.8
26	Paper and Allied Products	972	W	W	19.1
27	Printing and Publishing	0	0	0	0.0
28	Chemicals and Allied Products	W	W	W	13.1
29	Petroleum and Coal Products	W	W	W	15.8
30	Rubber and Misc. Plastics Products	Q	1	Q	38.6
31	Leather and Leather Products	0	0	0	0.0
32	Stone, Clay and Glass Products	0	0	0	0.0
33	Primary Metal Industries	645	5	640	14.7
34	Fabricated Metal Products	W	0	W	43.3
35	Industrial Machinery and Equipment	W	1	W	40.5
36	Electronic and Other Electric Equipment	W	0	W	45.3
37	Transportation Equipment	136	4	132	26.2
38	Instruments and Related Products	W	0	W	42.2
39	Misc. Manufacturing Industries	0	0	0	0.0
	Total	2,306	660	1,646	10.4
		South Census Region			
	RSE Column Factors:	0.9	1.0	1.1	
20	Food and Kindred Products	234	W	W	20.2
21	Tobacco Products	W	W	0	36.4
22	Textile Mill Products	W	W	W	37.3
23	Apparel and Other Textile Products	Q	0	Q	0.0
24	Lumber and Wood Products	89	63	26	31.2
25	Furniture and Fixtures	0	0	0	0.0
26	Paper and Allied Products	1,909	1,540	369	7.0
27	Printing and Publishing	0	0	0	0.0
28	Chemicals and Allied Products	6,547	3,812	2,735	8.9
29	Petroleum and Coal Products	707	374	333	10.5
30	Rubber and Misc. Plastics Products	Q	*	Q	41.4
31	Leather and Leather Products	0	0	0	0.0
32	Stone, Clay and Glass Products	W	W	0	21.4
33	Primary Metal Industries	W	W	W	9.1
34	Fabricated Metal Products	0	0	0	0.0
35	Industrial Machinery and Equipment	0	0	0	0.0
36	Electronic and Other Electric Equipment	0	0	0	0.0
37	Transportation Equipment	W	0	W	29.9
38	Instruments and Related Products	0	0	0	0.0
39	Misc. Manufacturing Industries	0	0	0	0.0
	Total	13,893	10,081	3,812	4.9

See footnotes at end of table.

Table A14. Quantity of Electricity Sold to Utility and Nonutility Purchasers by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total Sold	Utility Purchaser[b]	Nonutility Purchaser[c]	RSE Row Factors
		West Census Region			
	RSE Column Factors:	1.0	1.0	1.0	
20	Food and Kindred Products	1,472	W	W	32.0
21	Tobacco Products	0	0	0	0.0
22	Textile Mill Products	0	0	0	0.0
23	Apparel and Other Textile Products	0	0	0	0.0
24	Lumber and Wood Products	788	782	7	27.0
25	Furniture and Fixtures	0	0	0	0.0
26	Paper and Allied Products	W	W	W	9.2
27	Printing and Publishing	W	W	W	40.8
28	Chemicals and Allied Products	913	912	Q	13.3
29	Petroleum and Coal Products	W	W	W	21.2
30	Rubber and Misc. Plastics Products	0	0	0	0.0
31	Leather and Leather Products	0	0	0	0.0
32	Stone, Clay and Glass Products	W	W	0	29.6
33	Primary Metal Industries	W	0	W	27.0
34	Fabricated Metal Products	0	0	0	0.0
35	Industrial Machinery and Equipment	W	W	0	43.9
36	Electronic and Other Electric Equipment	0	0	0	0.0
37	Transportation Equipment	0	0	0	0.0
38	Instruments and Related Products	W	Q	W	38.4
39	Misc. Manufacturing Industries	0	0	0	0.0
	Total	7,914	7,454	459	10.4

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] See Glossary for definition of Electric Utility.
[c] Includes consumers, such as other manufacturers, households, and commercial entities; suppliers, such as independent power producers, small power producers, and cogenerators not located at the establishment site; and any other supplier(s), such as producers, brokers, and marketers.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A14. Quantity of Electricity Sold to Utility and Nonutility Purchasers by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total Sold	Utility Purchaser[b]	Nonutility Purchaser[c]	RSE Row Factors
	RSE Column Factors:	0.9	1.1	1.0	
20	Food and Kindred Products	1,829	W	W	28.0
2011	*Meat Packing Plants*	0	0	0	0.0
2033	*Canned Fruits and Vegetables*	58	W	W	34.8
2037	*Frozen Fruits and Vegetables*	0	0	0	0.0
2046	*Wet Corn Milling*	70	70	0	30.0
2051	*Bread, Cake, and Related Products*	0	0	0	0.0
2061	*Cane Sugar, Except Refining*	331	W	W	17.0
2062	*Cane Sugar Refining*	3	3	0	43.0
2063	*Beet Sugar*	W	W	0	10.0
2075	*Soybean Oil Mills*	W	W	0	1.0
2082	*Malt Beverages*	W	W	0	1.0
21	Tobacco Products	W	W	0	34.0
22	Textile Mill Products	W	W	W	37.7
23	Apparel and Other Textile Products	Q	0	Q	0.0
24	Lumber and Wood Products	1,041	1,008	33	22.0
2421	*Sawmills and Planing Mills, General*	592	562	31	18.2
2436	*Softwood Veneer and Plywood*	Q	Q	0	0.0
2493	*Reconstituted Wood Products*	142	W	W	24.1
25	Furniture and Fixtures	W	38	W	40.0
2511	*Wood Furniture, Except Upholstered*	38	38	0	42.0
26	Paper and Allied Products	9,250	8,061	1,188	6.9
2611	*Pulp Mills*	469	W	W	25.9
2621	*Paper Mills*	5,837	5,316	521	8.2
2631	*Paperboard Mills*	2,919	2,687	232	5.6
27	Printing and Publishing	W	W	W	40.8
28	Chemicals and Allied Products	7,744	4,902	2,842	7.6
2812	*Alkalies and Chlorine*	W	W	W	12.2
2813	*Industrial Gases*	0	0	0	0.0
2816	*Inorganic Pigments*	0	0	0	0.0
2819	*Industrial Inorganic Chemicals, nec.*	622	489	133	31.4
2821	*Plastics Materials and Resins*	568	W	W	17.1
2822	*Synthetic Rubber*	200	0	200	45.4
2823	*Cellulosic Manmade Fibers*	W	W	W	1.0
2824	*Organic Fibers, Noncellulosic*	W	W	W	14.9
2861	*Gum and Wood Chemicals*	0	0	0	0.0
2865	*Cyclic Crudes and Intermediates*	5	5	0	28.0
2869	*Industrial Organic Chemicals, nec.*	3,751	2,215	1,535	12.5
2873	*Nitrogenous Fertilizers*	14	14	*	36.7
2874	*Phosphatic Fertilizers*	1,053	648	405	4.9
2895	*Carbon Black*	W	W	0	20.0
29	Petroleum and Coal Products	1,939	1,350	589	9.4
2911	*Petroleum Refining*	1,435	849	587	7.9
30	Rubber and Misc. Plastics Products	29	1	Q	42.0
3011	*Tires and Inner Tubes*	0	0	0	0.0
308	*Miscellaneous Plastics Products, nec.*	Q	1	Q	33.8
31	Leather and Leather Products	W	W	0	0.0
32	Stone, Clay and Glass Products	W	W	W	28.5
3211	*Flat Glass*	0	0	0	0.0
3221	*Glass Containers*	0	0	0	0.0
3229	*Pressed and Blown Glass, nec.*	W	W	0	20.0
3241	*Cement, Hydraulic*	5	5	0	42.0
3274	*Lime*	0	0	0	0.0
3296	*Mineral Wool*	0	0	0	0.0
33	Primary Metal Industries	5,137	W	W	6.5
331	*Blast Furnace and Basic Steel Products*	W	W	947	14.4
3312	*Blast Furnaces and Steel Mills*	W	W	946	14.4
3313	*Electrometallurgical Products*	Q	0	Q	0.0
3321	*Gray and Ductile Iron Foundries*	0	0	0	0.0
3331	*Primary Copper*	0	0	0	0.0
3334	*Primary Aluminum*	W	W	W	1.0
3339	*Primary Nonferrous Metals, nec.*	W	W	0	29.0
3353	*Aluminum Sheet, Plate, and Foil*	0	0	0	0.0

See footnotes at end of table.

Table A14. Quantity of Electricity Sold to Utility and Nonutility Purchasers by Industry Group and Selected Industries, 1994: Part 2 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Total Sold	Utility Purchaser[b]	Nonutility Purchaser[c]	RSE Row Factors
	RSE Column Factors:	0.9	1.1	1.0	
34	Fabricated Metal Products	W	W	W	36.1
35	Industrial Machinery and Equipment	W	W	W	42.5
357	*Computer and Office Equipment*	0	0	0	0.0
36	Electronic and Other Electric Equipment	W	0	W	45.4
37	Transportation Equipment	225	W	W	19.0
3711	*Motor Vehicles and Car Bodies*	W	0	W	49.5
3714	*Motor Vehicle Parts and Accessories*	136	4	132	26.2
38	Instruments and Related Products	15	Q	15	34.6
3841	*Surgical and Medical Instruments*	0	0	0	0.0
39	Misc. Manufacturing Industries	0	0	0	0.0
	Total	28,221	21,909	6,312	4.6

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] See Glossary for definition of Electric Utility.
[c] Includes consumers, such as other manufacturers, households, and commercial entities; suppliers, such as independent power producers, small power producers, and cogenerators not located at the establishment site; and any other supplier(s), such as producers, brokers, and marketers.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A15. Total Quantity of Purchased Energy Sources by Census Region and Industry Group, 1994: Part 1

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Electricity (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
		Total United States									
	RSE Column Factors:	0.5	0.5	1.6	1.5	0.6	1.5	1.6	2.3	0.5	
20	Food and Kindred Products	1,262	W	4,802	3,176	610	1,706	7,470	97	211	4.8
21	Tobacco Products	26	1,259	133	W	W	18	W	0	W	21.0
22	Textile Mill Products	396	32,515	2,683	1,276	113	1,008	1,486	0	108	10.2
23	Apparel and Other Textile Products	78	W	W	119	25	132	W	0	23	20.1
24	Lumber and Wood Products	218	W	390	4,326	44	1,078	W	0	69	8.1
25	Furniture and Fixtures	72	6,678	W	154	23	213	W	0	21	10.6
26	Paper and Allied Products	1,698	71,514	27,649	1,558	540	1,342	13,733	0	404	3.4
27	Printing and Publishing	163	W	W	266	46	326	0	0	54	8.6
28	Chemicals and Allied Products	5,236	156,267	17,365	2,303	2,415	314,243	12,566	458	670	5.9
29	Petroleum and Coal Products	1,109	W	339	2,651	765	519	442	W	164	10.0
30	Rubber and Misc. Plastics Products	424	43,732	1,601	618	107	902	221	0	142	6.4
31	Leather and Leather Products	12	827	254	W	W	26	0	0	3	17.8
32	Stone, Clay and Glass Products	987	W	W	4,001	413	1,065	12,578	283	120	6.3
33	Primary Metal Industries	3,126	W	6,906	2,156	781	1,514	34,530	14,275	514	5.3
34	Fabricated Metal Products	460	33,833	481	749	210	1,341	W	W	110	11.4
35	Industrial Machinery and Equipment	342	W	W	701	107	914	469	W	103	7.9
36	Electronic and Other Electric Equipment	320	W	430	311	85	631	W	W	109	9.6
37	Transportation Equipment	467	W	1,803	1,063	151	889	1,182	W	131	8.7
38	Instruments and Related Products	149	13,494	606	240	28	84	W	0	46	13.7
39	Misc. Manufacturing Industries	60	5,575	143	204	19	166	W	0	W	16.9
	Total	16,605	788,070	67,343	25,939	6,490	328,117	86,920	15,259	3,025	2.9
		Northeast Census Region									
	RSE Column Factors:	0.5	0.5	1.1	1.2	0.7	1.5	2.1	2.5	0.5	
20	Food and Kindred Products	109	6,292	W	W	47	284	W	0	21	11.2
21	Tobacco Products	W	20	W	W	W	1	0	0	W	36.2
22	Textile Mill Products	35	1,667	1,055	W	13	234	W	0	6	13.4
23	Apparel and Other Textile Products	19	W	W	W	5	Q	0	0	W	48.0
24	Lumber and Wood Products	12	1,212	W	W	2	135	0	0	4	23.5
25	Furniture and Fixtures	W	424	Q	77	2	20	0	0	W	24.5
26	Paper and Allied Products	263	W	12,028	411	W	443	W	0	57	7.0
27	Printing and Publishing	30	W	W	142	8	63	0	0	9	15.2
28	Chemicals and Allied Products	185	11,312	3,307	760	57	4,539	W	0	41	9.3
29	Petroleum and Coal Products	74	3,451	149	1,144	W	372	W	0	13	15.3
30	Rubber and Misc. Plastics Products	62	W	419	220	13	224	64	0	20	11.7
31	Leather and Leather Products	5	242	159	W	W	17	0	0	1	26.5
32	Stone, Clay and Glass Products	143	W	W	906	64	221	1,500	W	17	11.3
33	Primary Metal Industries	581	W	W	526	102	504	12,377	W	66	12.7
34	Fabricated Metal Products	73	W	307	409	31	267	W	W	18	14.8
35	Industrial Machinery and Equipment	48	W	189	W	15	175	0	0	15	12.3
36	Electronic and Other Electric Equipment	76	W	W	W	21	233	W	W	24	17.7
37	Transportation Equipment	52	3,567	W	278	W	97	W	0	13	14.5
38	Instruments and Related Products	66	3,746	558	203	9	33	W	0	17	18.9
39	Misc. Manufacturing Industries	19	1,673	116	98	6	52	W	0	W	20.0
	Total	1,859	95,488	22,467	7,022	494	7,917	17,688	349	356	5.0

See footnotes at end of table.

Table A15. Total Quantity of Purchased Energy Sources by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Electricity (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
		Midwest Census Region									
	RSE Column Factors:	0.5	0.5	2.1	1.5	0.6	1.5	1.4	1.6	0.5	
20	Food and Kindred Products	562	W	1,176	W	258	338	5,494	W	86	7.6
21	Tobacco Products	*	W	0	W	W	0	0	0	W	56.3
22	Textile Mill Products	7	W	0	W	4	2	0	0	W	26.7
23	Apparel and Other Textile Products	9	785	0	W	4	Q	0	0	W	28.9
24	Lumber and Wood Products	39	3,124	W	W	12	270	W	0	10	15.2
25	Furniture and Fixtures	28	2,236	W	W	12	65	W	0	W	17.6
26	Paper and Allied Products	337	W	812	W	W	246	3,949	0	73	6.2
27	Printing and Publishing	59	5,975	*	W	19	106	0	0	19	12.1
28	Chemicals and Allied Products	666	40,189	W	189	269	14,165	2,609	W	139	10.8
29	Petroleum and Coal Products	154	W	W	298	W	Q	W	0	29	12.0
30	Rubber and Misc. Plastics Products	163	W	W	W	48	233	W	0	53	11.1
31	Leather and Leather Products	5	W	W	W	W	7	0	0	1	27.2
32	Stone, Clay and Glass Products	255	9,722	51	982	108	188	3,124	W	32	12.3
33	Primary Metal Industries	1,376	W	4,786	663	408	510	13,454	9,118	184	8.3
34	Fabricated Metal Products	250	17,194	W	103	122	656	W	W	56	16.2
35	Industrial Machinery and Equipment	175	W	W	W	60	405	469	0	W	11.7
36	Electronic and Other Electric Equipment	90	W	W	W	30	183	W	0	29	14.4
37	Transportation Equipment	230	W	W	401	82	377	897	W	59	14.0
38	Instruments and Related Products	25	2,487	W	4	8	28	0	0	8	18.0
39	Misc. Manufacturing Industries	13	966	0	W	6	25	W	0	3	30.2
	Total	4,445	233,566	8,779	4,021	1,660	17,885	30,459	9,354	839	5.7
		South Census Region									
	RSE Column Factors:	0.5	0.5	1.8	1.5	0.6	1.4	1.4	2.5	0.5	
20	Food and Kindred Products	329	W	1,508	902	158	686	W	W	66	7.6
21	Tobacco Products	W	W	W	W	3	18	W	0	W	21.9
22	Textile Mill Products	348	29,946	1,628	W	93	768	W	0	99	12.7
23	Apparel and Other Textile Products	44	W	W	W	13	108	W	0	13	18.3
24	Lumber and Wood Products	93	W	W	W	16	375	W	0	30	11.2
25	Furniture and Fixtures	32	3,354	49	W	8	109	58	0	W	13.6
26	Paper and Allied Products	844	30,216	12,983	892	269	471	7,344	0	213	5.0
27	Printing and Publishing	54	6,096	W	W	13	104	0	0	W	15.4
28	Chemicals and Allied Products	4,128	91,340	13,342	1,188	1,968	295,498	8,545	164	439	7.0
29	Petroleum and Coal Products	671	W	W	851	498	67	38	W	88	13.3
30	Rubber and Misc. Plastics Products	167	17,283	835	353	40	351	72	0	57	8.5
31	Leather and Leather Products	W	W	W	W	*	2	0	0	W	36.2
32	Stone, Clay and Glass Products	406	W	W	1,184	178	464	5,051	119	49	9.6
33	Primary Metal Industries	855	W	1,096	W	201	420	7,451	4,487	166	8.4
34	Fabricated Metal Products	98	W	W	195	40	298	W	0	26	13.3
35	Industrial Machinery and Equipment	86	8,813	W	W	25	282	0	W	28	12.0
36	Electronic and Other Electric Equipment	105	11,194	54	W	26	206	67	W	37	14.0
37	Transportation Equipment	117	W	W	274	34	336	W	W	36	14.4
38	Instruments and Related Products	30	4,049	W	W	W	12	0	0	10	21.2
39	Misc. Manufacturing Industries	19	1,959	27	W	W	85	0	0	6	25.7
	Total	8,452	339,087	32,735	9,960	3,591	300,660	31,576	4,814	1,398	4.5

See footnotes at end of table.

Table A15. Total Quantity of Purchased Energy Sources by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Electricity (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
		West Census Region									
	RSE Column Factors:	0.5	0.5	1.9	1.5	0.7	1.4	1.5	1.7	0.5	
20	Food and Kindred Products	262	10,449	W	1,191	147	398	1,109	W	37	7.3
21	Tobacco Products	0	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	6	W	0	0	3	4	0	0	W	28.6
23	Apparel and Other Textile Products	6	654	0	0	2	Q	0	0	W	33.8
24	Lumber and Wood Products	74	W	127	W	14	298	0	0	25	12.5
25	Furniture and Fixtures	W	664	0	*	2	20	0	0	W	26.9
26	Paper and Allied Products	254	W	1,825	W	113	182	W	0	61	7.5
27	Printing and Publishing	20	2,183	0	W	5	53	0	0	W	15.2
28	Chemicals and Allied Products	256	13,426	W	166	121	40	W	W	51	15.7
29	Petroleum and Coal Products	210	W	0	358	138	8	W	0	34	15.1
30	Rubber and Misc. Plastics Products	32	3,749	W	W	6	94	W	0	12	17.5
31	Leather and Leather Products	W	W	0	0	W	Q	0	0	W	65.9
32	Stone, Clay and Glass Products	184	6,404	W	930	63	191	2,904	W	22	12.1
33	Primary Metal Industries	314	W	W	W	71	80	1,248	W	99	7.1
34	Fabricated Metal Products	40	W	0	41	17	121	0	W	10	14.6
35	Industrial Machinery and Equipment	33	3,848	0	W	7	53	0	0	W	18.6
36	Electronic and Other Electric Equipment	49	6,027	0	W	8	9	0	0	20	15.9
37	Transportation Equipment	67	6,487	W	110	W	78	0	0	22	16.2
38	Instruments and Related Products	27	3,212	0	W	W	Q	0	0	11	13.9
39	Misc. Manufacturing Industries	8	978	0	W	W	4	0	0	3	36.5
	Total	1,848	119,930	3,363	4,936	746	1,655	7,197	742	432	5.0

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[d] "Other" energy sources include such combustible energy sources as wood waste, hydrogen, or waste oils and tars.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • "Purchases" exclude quantities that are transferred in from other establishments of the same company, quantities purchased by a central purchasing office offsite, and quantities for which payment is made in-kind.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A15. Total Quantity of Purchased Energy Sources by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Electricity (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.6	0.6	1.5	1.3	0.7	1.4	1.4	1.8	0.6	
20	Food and Kindred Products	1,262	W	4,802	3,176	610	1,706	7,470	97	211	4.8
2011	*Meat Packing Plants*	65	3,924	138	101	35	108	W	0	13	13.6
2033	*Canned Fruits and Vegetables*	57	1,490	W	119	42	126	W	0	6	12.8
2037	*Frozen Fruits and Vegetables*	49	W	204	56	26	76	0	0	10	15.0
2046	*Wet Corn Milling*	190	5,175	169	10	67	9	3,549	6	25	17.9
2051	*Bread, Cake, and Related Products*	45	2,436	Q	131	26	89	0	0	8	16.7
2061	*Cane Sugar, Except Refining*	8	156	W	220	2	1	W	0	2	13.2
2062	*Cane Sugar Refining*	20	W	313	97	16	4	0	0	W	25.6
2063	*Beet Sugar*	67	437	W	W	18	7	1,787	91	W	2.8
2075	*Soybean Oil Mills*	61	W	W	W	30	24	678	0	8	1.3
2082	*Malt Beverages*	61	2,323	W	20	21	Q	793	0	10	9.0
21	Tobacco Products	26	1,259	133	W	W	18	W	0	W	20.4
22	Textile Mill Products	396	32,515	2,683	1,276	113	1,008	1,486	0	108	9.9
23	Apparel and Other Textile Products	78	W	W	119	25	132	W	0	23	19.0
24	Lumber and Wood Products	218	W	390	4,326	44	1,078	W	0	69	7.9
2421	*Sawmills and Planing Mills, General*	67	W	W	1,209	11	89	0	0	24	11.9
2436	*Softwood Veneer and Plywood*	24	W	Q	251	3	164	0	0	10	14.2
2493	*Reconstituted Wood Products*	52	W	W	128	15	368	W	0	15	12.2
25	Furniture and Fixtures	72	6,678	W	154	23	213	W	0	21	10.3
2511	*Wood Furniture, Except Upholstered*	19	2,184	47	62	2	59	56	0	7	14.6
26	Paper and Allied Products	1,698	71,514	27,649	1,558	540	1,342	13,733	0	404	3.3
2611	*Pulp Mills*	87	2,560	3,588	178	21	70	328	0	26	12.2
2621	*Paper Mills*	907	37,503	15,072	740	258	483	8,747	0	218	4.8
2631	*Paperboard Mills*	505	16,399	7,974	314	183	119	4,515	0	108	2.7
27	Printing and Publishing	163	W	W	266	46	326	0	0	54	8.2
28	Chemicals and Allied Products	5,236	156,267	17,365	2,303	2,415	314,243	12,566	458	670	5.9
2812	*Alkalies and Chlorine*	183	W	W	53	54	W	W	0	60	8.3
2813	*Industrial Gases*	183	22,816	0	W	22	1	29	42	81	19.1
2816	*Inorganic Pigments*	48	2,393	159	W	21	18	W	W	8	9.4
2819	*Industrial Inorganic Chemicals, nec.*	498	42,786	626	261	146	44	1,498	349	155	11.6
2821	*Plastics Materials and Resins*	672	16,832	534	151	232	80,147	879	0	67	8.1
2822	*Synthetic Rubber*	101	2,384	W	15	53	6,921	W	0	8	22.9
2823	*Cellulosic Manmade Fibers*	29	437	0	23	W	W	W	0	W	1.2
2824	*Organic Fibers, Noncellulosic*	130	W	W	86	38	55	W	0	29	6.8
2861	*Gum and Wood Chemicals*	9	W	W	W	3	63	152	W	1	7.3
2865	*Cyclic Crudes and Intermediates*	170	4,653	1,509	203	88	Q	W	0	19	17.3
2869	*Industrial Organic Chemicals, nec.*	2,121	20,528	797	W	971	215,993	5,155	W	150	10.3
2873	*Nitrogenous Fertilizers*	635	3,831	0	30	589	4	0	0	15	11.7
2874	*Phosphatic Fertilizers*	38	2,185	W	W	13	3	W	0	14	5.1
2895	*Carbon Black*	82	571	9,298	W	19	W	0	0	2	10.9
29	Petroleum and Coal Products	1,109	W	339	2,651	765	519	442	W	164	10.0
2911	*Petroleum Refining*	1,012	W	0	W	715	W	W	0	155	7.4
30	Rubber and Misc. Plastics Products	424	43,732	1,601	618	107	902	221	0	142	6.2
3011	*Tires and Inner Tubes*	62	4,664	721	W	22	96	81	0	15	8.8
308	*Miscellaneous Plastics Products, nec.*	299	33,988	497	266	62	709	82	0	110	9.0
31	Leather and Leather Products	12	827	254	W	W	26	0	0	3	16.8
32	Stone, Clay and Glass Products	987	W	W	4,001	413	1,065	12,578	283	120	6.3
3211	*Flat Glass*	53	1,468	244	10	40	20	0	0	5	16.7
3221	*Glass Containers*	98	4,268	336	75	64	99	0	0	W	6.5
3229	*Pressed and Blown Glass, nec.*	72	W	W	57	47	38	0	0	11	9.5
3241	*Cement, Hydraulic*	312	10,789	W	857	25	9	9,301	113	36	11.0
3274	*Lime*	91	1,151	105	251	12	5	3,002	82	4	17.9
3296	*Mineral Wool*	62	3,386	W	16	36	74	0	86	12	11.4
33	Primary Metal Industries	3,126	W	6,906	2,156	781	1,514	34,530	14,275	514	5.3
331	*Blast Furnace and Basic Steel Products*	2,176	55,214	6,708	915	510	317	33,847	12,703	203	8.2
3312	*Blast Furnaces and Steel Mills*	2,050	45,463	6,688	847	469	82	33,213	W	171	6.6
3313	*Electrometallurgical Products*	52	4,797	0	21	2	5	621	W	16	37.5
3321	*Gray and Ductile Iron Foundries*	119	W	Q	113	28	161	35	1,168	29	11.3
3331	*Primary Copper*	38	W	W	W	21	W	W	0	8	1.1
3334	*Primary Aluminum*	368	W	W	119	16	53	W	W	183	1.3
3339	*Primary Nonferrous Metals, nec.*	60	4,205	W	W	12	17	444	281	16	13.3
3353	*Aluminum Sheet, Plate, and Foil*	84	W	0	W	51	54	W	0	16	5.9

See footnotes at end of table.

Table A15. Total Quantity of Purchased Energy Sources by Industry Group and Selected Industries, 1994: Part 2 (Continued)
(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Total (trillion Btu)	Electricity (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil[b] (1000 bbl)	Natural Gas[c] (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other[d] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	0.6	0.6	1.5	1.3	0.7	1.4	1.4	1.8	0.6	
34	Fabricated Metal Products	460	33,833	481	749	210	1,341	W	W	110	11.4
35	Industrial Machinery and Equipment	342	W	W	701	107	914	469	W	103	7.7
357	*Computer and Office Equipment*	33	4,178	W	W	5	Q	0	0	W	23.0
36	Electronic and Other Electric Equipment	320	W	430	311	85	631	W	W	109	9.6
37	Transportation Equipment	467	W	1,803	1,063	151	889	1,182	W	131	8.7
3711	*Motor Vehicles and Car Bodies*	126	8,863	W	82	51	51	510	0	29	19.4
3714	*Motor Vehicle Parts and Accessories*	160	W	W	147	53	381	443	W	46	14.4
38	Instruments and Related Products	149	13,494	606	240	28	84	W	0	46	13.3
3841	*Surgical and Medical Instruments*	11	1,347	16	13	W	30	0	0	4	19.1
39	Misc. Manufacturing Industries	60	5,575	143	204	19	166	W	0	W	16.3
	Total	16,605	788,070	67,343	25,939	6,490	328,117	86,920	15,259	3,025	2.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[d] "Other" energy sources include such combustible energy sources as wood waste, hydrogen, or waste oils and tars.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components *because of independent rounding.* • *"Purchases" exclude quantities that are transferred in from other establishments of the same company, quantities purchased by a central* purchasing office offsite, and quantities for which payment is made in-kind.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A16. Quantity of Purchased Electricity and Steam by Type of Supplier, Census Region, and Industry Group, 1994: Part 1

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (million kWh)		Steam (billion Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
		Total United States				
	RSE Column Factors:	0.2	1.9	1.6	1.4	
20	Food and Kindred Products	58,898	W	13,005	5,123	10.3
21	Tobacco Products	1,259	0	W	0	57.1
22	Textile Mill Products	W	W	5,080	4,374	16.1
23	Apparel and Other Textile Products	7,680	W	1,227	W	36.4
24	Lumber and Wood Products	20,280	W	1,296	3,452	11.2
25	Furniture and Fixtures	W	W	313	Q	23.7
26	Paper and Allied Products	70,926	588	15,366	15,178	6.8
27	Printing and Publishing	17,374	W	984	405	19.5
28	Chemicals and Allied Products	139,324	16,943	25,611	86,533	10.5
29	Petroleum and Coal Products	36,071	W	22,950	18,755	8.7
30	Rubber and Misc. Plastics Products	43,633	99	W	1,362	13.7
31	Leather and Leather Products	827	0	0	W	38.8
32	Stone, Clay and Glass Products	35,874	W	46	320	19.1
33	Primary Metal Industries	139,850	W	W	7,003	10.4
34	Fabricated Metal Products	W	W	769	499	21.9
35	Industrial Machinery and Equipment	31,599	W	202	1,080	21.9
36	Electronic and Other Electric Equipment	33,011	W	650	84	22.9
37	Transportation Equipment	38,090	W	2,172	2,319	16.8
38	Instruments and Related Products	13,402	92	358	372	21.7
39	Misc. Manufacturing Industries	W	W	Q	290	31.2
	Total	766,494	21,576	95,503	147,406	4.9
		Northeast Census Region				
	RSE Column Factors:	0.3	1.5	1.7	1.3	
20	Food and Kindred Products	W	W	W	W	22.2
21	Tobacco Products	20	0	0	0	78.5
22	Textile Mill Products	W	W	W	1,670	20.2
23	Apparel and Other Textile Products	W	W	W	0	127.5
24	Lumber and Wood Products	W	W	0	W	36.0
25	Furniture and Fixtures	424	0	0	0	39.2
26	Paper and Allied Products	9,508	W	W	7,058	11.6
27	Printing and Publishing	3,120	W	W	0	21.8
28	Chemicals and Allied Products	10,898	415	W	W	10.6
29	Petroleum and Coal Products	3,451	0	W	W	16.2
30	Rubber and Misc. Plastics Products	6,412	W	717	W	20.4
31	Leather and Leather Products	242	0	0	0	52.3
32	Stone, Clay and Glass Products	5,212	W	0	W	15.0
33	Primary Metal Industries	18,199	W	854	624	22.5
34	Fabricated Metal Products	5,046	W	129	431	23.0
35	Industrial Machinery and Equipment	W	W	0	1,080	25.8
36	Electronic and Other Electric Equipment	7,305	W	Q	84	29.1
37	Transportation Equipment	W	W	0	737	24.4
38	Instruments and Related Products	3,682	64	357	372	21.8
39	Misc. Manufacturing Industries	W	W	Q	290	36.1
	Total	93,768	1,720	16,450	28,246	6.0

See footnotes at end of table.

Table A16. Quantity of Purchased Electricity and Steam by Type of Supplier, Census Region, and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (million kWh)		Steam (billion Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
		Midwest Census Region				
	RSE Column Factors:	0.3	1.7	1.5	1.3	
20	Food and Kindred Products	W	W	7,616	0	11.2
21	Tobacco Products	W	0	0	0	118.3
22	Textile Mill Products	W	0	0	21	37.7
23	Apparel and Other Textile Products	785	0	Q	0	46.7
24	Lumber and Wood Products	W	W	Q	0	24.9
25	Furniture and Fixtures	2,236	0	Q	Q	28.0
26	Paper and Allied Products	W	W	8,734	W	14.4
27	Printing and Publishing	5,975	0	W	188	22.2
28	Chemicals and Allied Products	39,221	967	4,213	11,612	14.6
29	Petroleum and Coal Products	W	0	111	W	19.1
30	Rubber and Misc. Plastics Products	W	W	1,173	0	22.3
31	Leather and Leather Products	W	0	0	W	47.3
32	Stone, Clay and Glass Products	9,722	0	46	0	21.1
33	Primary Metal Industries	45,930	W	W	5,604	14.0
34	Fabricated Metal Products	W	W	640	68	28.9
35	Industrial Machinery and Equipment	W	W	134	0	23.1
36	Electronic and Other Electric Equipment	8,484	W	524	0	23.4
37	Transportation Equipment	17,129	W	1,659	1,335	26.2
38	Instruments and Related Products	W	W	0	0	24.9
39	Misc. Manufacturing Industries	966	0	0	0	43.6
	Total	231,326	2,239	27,225	20,980	7.4
		South Census Region				
	RSE Column Factors:	0.3	2.1	1.3	1.2	
20	Food and Kindred Products	W	0	4,101	W	16.2
21	Tobacco Products	W	0	W	0	49.6
22	Textile Mill Products	W	W	W	2,682	20.5
23	Apparel and Other Textile Products	4,238	W	Q	W	24.8
24	Lumber and Wood Products	9,334	W	601	W	13.5
25	Furniture and Fixtures	W	W	299	0	28.8
26	Paper and Allied Products	W	W	3,302	W	12.8
27	Printing and Publishing	6,096	0	383	Q	30.4
28	Chemicals and Allied Products	W	W	17,156	66,035	11.5
29	Petroleum and Coal Products	18,384	W	W	W	12.6
30	Rubber and Misc. Plastics Products	W	W	W	1,064	10.6
31	Leather and Leather Products	W	0	0	0	67.3
32	Stone, Clay and Glass Products	14,535	W	0	W	15.1
33	Primary Metal Industries	W	0	0	0	10.6
34	Fabricated Metal Products	W	0	0	0	17.7
35	Industrial Machinery and Equipment	8,813	0	0	0	17.7
36	Electronic and Other Electric Equipment	11,194	0	0	0	21.2
37	Transportation Equipment	11,148	W	0	0	23.5
38	Instruments and Related Products	4,049	0	0	0	85.0
39	Misc. Manufacturing Industries	1,959	0	0	0	42.5
	Total	323,322	15,765	47,052	73,952	8.2

See footnotes at end of table.

Table A16. Quantity of Purchased Electricity and Steam by Type of Supplier, Census Region, and Industry Group, 1994: Part 1 (Continued)

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (million kWh)		Steam (billion Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
		West Census Region				
	RSE Column Factors:	0.3	1.8	1.3	1.2	
20	Food and Kindred Products	10,341	108	W	3,349	13.8
21	Tobacco Products	0	0	0	0	0.0
22	Textile Mill Products	W	W	286	0	38.8
23	Apparel and Other Textile Products	W	W	W	0	49.9
24	Lumber and Wood Products	6,672	W	441	1,757	18.5
25	Furniture and Fixtures	W	W	0	0	47.0
26	Paper and Allied Products	W	W	W	7,077	13.0
27	Printing and Publishing	2,183	0	0	0	17.6
28	Chemicals and Allied Products	W	W	W	W	14.2
29	Petroleum and Coal Products	W	W	W	10,036	12.0
30	Rubber and Misc. Plastics Products	3,749	0	0	W	20.8
31	Leather and Leather Products	W	0	0	0	99.8
32	Stone, Clay and Glass Products	6,404	0	0	W	24.4
33	Primary Metal Industries	W	W	0	775	15.1
34	Fabricated Metal Products	W	0	0	0	20.5
35	Industrial Machinery and Equipment	3,848	0	Q	0	38.2
36	Electronic and Other Electric Equipment	6,027	0	0	0	23.5
37	Transportation Equipment	W	W	Q	247	20.5
38	Instruments and Related Products	W	W	Q	0	21.8
39	Misc. Manufacturing Industries	978	0	0	0	67.5
	Total	118,079	1,852	4,777	24,227	6.6

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] See Glossary for definition of Electric Utility.

[c] Includes independent power producers, small power producers, cogenerators not located at the establishment site, and any other supplier(s), such as producers, brokers, and marketers.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • "Purchases" exclude quantities that are transferred in from other establishments of the same company, quantities purchased by a central purchasing office offsite, and quantities for which payment is made in-kind.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A16. Quantity of Purchased Electricity and Steam by Type of Supplier, Industry Group, and Selected Industries, 1994: Part 2

(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (million kWh)		Steam (billion Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	RSE Column Factors:	0.3	1.6	1.5	1.3	
20	Food and Kindred Products	58,898	W	13,005	5,123	10.3
2011	*Meat Packing Plants*	3,924	0	346	0	21.5
2033	*Canned Fruits and Vegetables*	1,490	0	W	249	25.3
2037	*Frozen Fruits and Vegetables*	2,826	W	793	1,144	20.6
2046	*Wet Corn Milling*	W	W	2,132	824	27.6
2051	*Bread, Cake, and Related Products*	W	W	W	0	26.1
2061	*Cane Sugar, Except Refining*	156	0	0	0	20.6
2062	*Cane Sugar Refining*	W	0	1,767	0	43.1
2063	*Beet Sugar*	437	0	0	0	8.8
2075	*Soybean Oil Mills*	W	0	1,216	W	1.2
2082	*Malt Beverages*	2,323	0	0	0	20.6
21	Tobacco Products	1,259	0	W	0	41.1
22	Textile Mill Products	W	W	5,080	4,374	16.1
23	Apparel and Other Textile Products	7,680	W	1,227	W	31.8
24	Lumber and Wood Products	20,280	W	1,296	3,452	11.2
2421	*Sawmills and Planing Mills, General*	6,836	W	529	2,016	16.5
2436	*Softwood Veneer and Plywood*	2,675	W	0	690	24.6
2493	*Reconstituted Wood Products*	W	0	W	W	16.4
25	Furniture and Fixtures	W	W	313	Q	20.7
2511	*Wood Furniture, Except Upholstered*	2,184	0	299	0	26.8
26	Paper and Allied Products	70,926	588	15,366	15,178	6.8
2611	*Pulp Mills*	W	W	0	1,838	21.0
2621	*Paper Mills*	W	W	5,454	8,458	10.7
2631	*Paperboard Mills*	W	W	8,454	2,390	5.6
27	Printing and Publishing	17,374	W	984	405	19.5
28	Chemicals and Allied Products	139,324	16,943	25,611	86,533	10.5
2812	*Alkalies and Chlorine*	W	0	W	W	9.3
2813	*Industrial Gases*	22,816	0	0	Q	20.6
2816	*Inorganic Pigments*	W	W	W	W	16.4
2819	*Industrial Inorganic Chemicals, nec.*	W	W	848	672	24.9
2821	*Plastics Materials and Resins*	16,466	366	2,787	6,315	13.3
2822	*Synthetic Rubber*	W	W	8,003	3,243	26.6
2823	*Cellulosic Manmade Fibers*	W	W	0	W	1.1
2824	*Organic Fibers, Noncellulosic*	W	W	0	W	11.1
2861	*Gum and Wood Chemicals*	W	W	0	W	10.5
2865	*Cyclic Crudes and Intermediates*	W	W	2,458	2,108	21.8
2869	*Industrial Organic Chemicals, nec.*	19,073	1,454	7,953	50,550	12.0
2873	*Nitrogenous Fertilizers*	W	W	0	2,055	19.7
2874	*Phosphatic Fertilizers*	2,185	0	0	W	9.7
2895	*Carbon Black*	571	0	0	0	20.6
29	Petroleum and Coal Products	36,071	W	22,950	18,755	8.7
2911	*Petroleum Refining*	33,574	W	22,536	W	8.7
30	Rubber and Misc. Plastics Products	43,633	99	W	1,362	13.7
3011	*Tires and Inner Tubes*	4,664	0	W	W	9.6
308	*Miscellaneous Plastics Products, nec.*	W	W	1,864	350	16.4
31	Leather and Leather Products	827	0	0	W	34.2
32	Stone, Clay and Glass Products	35,874	W	46	320	19.1
3211	*Flat Glass*	1,468	0	0	W	31.3
3221	*Glass Containers*	4,268	0	0	0	11.7
3229	*Pressed and Blown Glass, nec.*	3,173	W	0	W	14.1
3241	*Cement, Hydraulic*	10,789	0	0	0	17.6
3274	*Lime*	1,151	0	0	0	35.2
3296	*Mineral Wool*	3,386	0	0	0	20.6
33	Primary Metal Industries	139,850	W	W	7,003	10.4
331	*Blast Furnace and Basic Steel Products*	W	W	W	6,334	16.5
3312	*Blast Furnaces and Steel Mills*	W	W	W	5,017	16.3
3313	*Electrometallurgical Products*	W	W	0	Q	99.9
3321	*Gray and Ductile Iron Foundries*	W	0	0	0	20.6
3331	*Primary Copper*	W	0	0	0	2.9
3334	*Primary Aluminum*	W	0	W	0	1.4
3339	*Primary Nonferrous Metals, nec.*	4,205	0	0	W	24.7
3353	*Aluminum Sheet, Plate, and Foil*	W	0	W	0	10.6

See footnotes at end of table.

Table A16. Quantity of Purchased Electricity and Steam by Type of Supplier, Industry Group, and Selected Industries, 1994: Part 2 (Continued)
(Estimates in Btu or Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (million kWh)		Steam (billion Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	RSE Column Factors:	0.3	1.6	1.5	1.3	
34	Fabricated Metal Products	W	W	769	499	21.9
35	Industrial Machinery and Equipment	31,599	W	202	1,080	21.9
357	*Computer and Office Equipment*	4,178	0	Q	0	38.2
36	Electronic and Other Electric Equipment	33,011	W	650	84	21.5
37	Transportation Equipment	38,090	W	2,172	2,319	16.8
3711	*Motor Vehicles and Car Bodies*	W	W	1,659	633	32.4
3714	*Motor Vehicle Parts and Accessories*	13,218	W	0	933	19.8
38	Instruments and Related Products	13,402	92	358	372	21.7
3841	*Surgical and Medical Instruments*	1,347	0	0	0	23.5
39	Misc. Manufacturing Industries	W	W	Q	290	27.4
	Total	766,494	21,576	95,503	147,406	4.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] See Glossary for definition of Electric Utility.
[c] Includes independent power producers, small power producers, cogenerators not located at the establishment site, and any other supplier(s), such as producers, brokers, and marketers.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • "Purchases" exclude quantities that are transferred in from other establishments of the same company, quantities purchased by a central purchasing office offsite, and quantities for which payment is made in-kind.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1991 Manufacturing Energy Consumption Survey."

Table A17. Total Expenditures for Purchased Energy Sources by Census Region and Industry Group, 1994: Part 1

(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Total	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
		Total United States									
	RSE Column Factors:	0.4	0.4	1.4	1.3	0.5	1.2	1.4	2.1	1.6	
20	Food and Kindred Products	5,548	W	84	101	1,788	W	241	14	106	5.4
21	Tobacco Products	102	63	2	W	W	W	W	0	Q	23.5
22	Textile Mill Products	2,102	1,502	50	32	403	21	62	0	33	11.8
23	Apparel and Other Textile Products	685	W	W	4	102	W	W	0	4	24.7
24	Lumber and Wood Products	1,674	W	6	155	147	27	W	0	220	10.0
25	Furniture and Fixtures	543	426	W	5	91	W	W	0	7	13.7
26	Paper and Allied Products	6,058	2,951	432	42	1,409	37	560	0	627	3.3
27	Printing and Publishing	1,391	W	W	9	194	10	0	0	11	10.5
28	Chemicals and Allied Products	18,007	5,373	267	65	5,358	5,304	469	52	1,119	6.2
29	Petroleum and Coal Products	3,720	W	6	69	1,731	11	12	*	310	10.9
30	Rubber and Misc. Plastics Products	2,874	2,382	27	16	388	28	11	0	21	7.6
31	Leather and Leather Products	86	62	4	W	W	W	0	0	*	20.0
32	Stone, Clay and Glass Products	3,630	W	W	128	1,203	W	460	16	52	8.0
33	Primary Metal Industries	10,748	W	114	57	2,185	W	1,657	1,530	309	5.5
34	Fabricated Metal Products	3,068	2,121	11	24	758	46	W	W	Q	12.8
35	Industrial Machinery and Equipment	2,468	W	W	21	409	W	17	*	30	9.1
36	Electronic and Other Electric Equipment	2,296	W	9	10	312	14	W	W	145	12.8
37	Transportation Equipment	2,729	W	30	26	514	20	49	W	68	9.5
38	Instruments and Related Products	1,017	834	11	7	110	W	W	0	9	12.7
39	Misc. Manufacturing Industries	436	318	W	5	86	4	W	0	W	18.3
	Total	69,184	35,970	1,091	776	17,216	5,681	3,638	1,631	3,181	3.6
		Northeast Census Region									
	RSE Column Factors:	0.5	0.4	1.0	1.1	0.6	1.4	1.8	2.2	1.4	
20	Food and Kindred Products	699	452	W	W	169	W	W	0	13	14.6
21	Tobacco Products	W	2	W	W	W	W	0	0	W	37.9
22	Textile Mill Products	225	129	19	W	54	5	W	0	10	14.9
23	Apparel and Other Textile Products	208	W	W	W	23	W	0	0	W	53.8
24	Lumber and Wood Products	123	86	W	W	10	W	0	0	16	21.8
25	Furniture and Fixtures	W	37	W	2	9	1	0	0	W	26.7
26	Paper and Allied Products	1,167	W	202	11	W	11	W	0	94	7.0
27	Printing and Publishing	330	W	W	4	45	W	0	0	3	17.7
28	Chemicals and Allied Products	1,028	573	60	22	198	W	W	0	69	10.0
29	Petroleum and Coal Products	350	172	W	28	W	W	W	0	33	16.4
30	Rubber and Misc. Plastics Products	568	W	9	6	62	W	W	0	3	14.1
31	Leather and Leather Products	36	25	3	W	W	1	0	0	*	26.8
32	Stone, Clay and Glass Products	634	W	W	27	211	6	56	W	8	12.9
33	Primary Metal Industries	1,860	W	W	13	346	15	607	W	31	12.8
34	Fabricated Metal Products	576	W	6	12	134	W	W	W	11	16.8
35	Industrial Machinery and Equipment	445	W	4	W	69	W	0	0	10	14.9
36	Electronic and Other Electric Equipment	656	W	W	W	81	5	W	W	Q	21.1
37	Transportation Equipment	356	256	W	7	W	W	W	0	12	15.8
38	Instruments and Related Products	403	298	11	6	40	W	W	0	4	17.9
39	Misc. Manufacturing Industries	150	97	W	3	28	W	W	0	W	22.7
	Total	9,869	6,023	396	197	1,794	185	828	40	405	6.2

See footnotes at end of table.

Table A17. Total Expenditures for Purchased Energy Sources by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Total	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
		Midwest Census Region									
	RSE Column Factors:	0.5	0.5	1.8	1.4	0.5	1.2	1.2	1.7	1.4	
20	Food and Kindred Products	2,028	W	17	W	705	8	167	W	59	8.5
21	Tobacco Products	1	W	0	W	W	0	0	0	W	51.5
22	Textile Mill Products	43	W	0	W	12	W	0	0	W	28.7
23	Apparel and Other Textile Products	66	50	0	W	16	W	0	0	W	33.8
24	Lumber and Wood Products	293	173	W	W	46	6	W	0	Q	17.9
25	Furniture and Fixtures	174	124	W	W	41	2	W	0	W	19.3
26	Paper and Allied Products	1,196	W	11	W	W	W	156	0	56	6.2
27	Printing and Publishing	431	350	W	W	72	W	0	0	5	14.1
28	Chemicals and Allied Products	2,333	1,229	W	5	675	W	96	W	196	11.0
29	Petroleum and Coal Products	635	W	W	7	W	W	W	0	18	16.3
30	Rubber and Misc. Plastics Products	1,014	W	W	W	166	W	W	0	9	13.7
31	Leather and Leather Products	26	W	W	W	W	W	0	0	*	30.1
32	Stone, Clay and Glass Products	922	441	W	35	316	W	107	W	Q	15.6
33	Primary Metal Industries	4,737	W	82	20	1,093	W	640	963	145	8.0
34	Fabricated Metal Products	1,451	998	W	3	405	21	W	W	8	16.5
35	Industrial Machinery and Equipment	1,125	W	W	W	217	13	17	0	W	13.2
36	Electronic and Other Electric Equipment	530	W	W	W	100	W	W	0	15	17.5
37	Transportation Equipment	1,222	W	W	7	269	8	W	W	33	15.4
38	Instruments and Related Products	164	133	W	*	29	W	0	0	1	21.6
39	Misc. Manufacturing Industries	92	62	0	W	28	1	W	0	*	35.9
	Total	18,483	10,328	146	123	4,823	220	1,241	988	614	5.8
		South Census Region									
	RSE Column Factors:	0.4	0.4	1.6	1.4	0.6	1.2	1.3	2.2	1.3	
20	Food and Kindred Products	1,625	W	27	26	494	16	W	W	22	9.1
21	Tobacco Products	W	W	W	W	9	W	W	0	W	23.7
22	Textile Mill Products	1,794	1,315	31	W	324	W	W	0	22	14.7
23	Apparel and Other Textile Products	346	W	W	W	53	W	W	0	Q	19.9
24	Lumber and Wood Products	738	W	W	W	50	10	W	0	80	13.6
25	Furniture and Fixtures	249	205	W	W	32	W	3	0	W	15.2
26	Paper and Allied Products	2,554	1,137	189	23	652	13	302	0	239	4.8
27	Printing and Publishing	426	365	W	W	53	3	0	0	W	19.3
28	Chemicals and Allied Products	13,780	3,109	195	32	4,237	5,088	311	14	795	7.8
29	Petroleum and Coal Products	1,958	W	W	22	1,036	W	W	W	179	14.9
30	Rubber and Misc. Plastics Products	990	812	14	9	134	10	4	0	8	9.8
31	Leather and Leather Products	W	W	W	W	2	*	0	0	W	37.0
32	Stone, Clay and Glass Products	1,387	W	W	36	498	11	191	7	18	11.4
33	Primary Metal Industries	3,005	W	16	W	564	10	339	489	63	8.5
34	Fabricated Metal Products	637	W	W	7	150	11	W	0	8	15.7
35	Industrial Machinery and Equipment	583	468	W	W	92	W	0	W	8	13.5
36	Electronic and Other Electric Equipment	700	538	1	W	94	W	W	W	53	16.6
37	Transportation Equipment	691	W	W	9	119	7	W	W	16	15.3
38	Instruments and Related Products	211	187	W	W	W	*	0	0	2	21.9
39	Misc. Manufacturing Industries	133	108	W	W	W	W	0	0	Q	28.8
	Total	31,923	13,974	492	284	8,635	5,222	1,282	513	1,522	5.0

See footnotes at end of table.

Table A17. Total Expenditures for Purchased Energy Sources by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Total	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
		West Census Region									
	RSE Column Factors:	0.5	0.4	1.7	1.5	0.6	1.3	1.4	1.5	1.2	
20	Food and Kindred Products	1,195	658	W	41	420	12	34	W	12	8.3
21	Tobacco Products	0	0	0	0	0	0	0	0	0	0.0
22	Textile Mill Products	40	W	0	0	12	W	0	0	W	29.4
23	Apparel and Other Textile Products	65	54	0	0	10	W	0	0	W	33.4
24	Lumber and Wood Products	520	W	2	W	41	W	0	0	77	13.8
25	Furniture and Fixtures	W	61	0	W	9	1	0	0	W	29.4
26	Paper and Allied Products	1,141	W	30	W	281	W	W	0	238	8.2
27	Printing and Publishing	204	176	0	W	23	W	0	0	W	18.0
28	Chemicals and Allied Products	866	461	W	7	248	W	W	W	59	17.5
29	Petroleum and Coal Products	777	W	0	11	291	W	W	0	81	16.0
30	Rubber and Misc. Plastics Products	302	270	W	W	27	W	W	0	1	20.8
31	Leather and Leather Products	W	W	0	0	W	W	0	0	W	65.0
32	Stone, Clay and Glass Products	687	338	W	29	178	W	106	W	17	12.9
33	Primary Metal Industries	1,146	W	W	W	182	W	72	W	69	7.6
34	Fabricated Metal Products	404	W	0	1	69	W	0	W	Q	20.5
35	Industrial Machinery and Equipment	316	278	0	W	31	W	0	0	W	19.5
36	Electronic and Other Electric Equipment	411	368	0	W	37	W	0	0	6	17.6
37	Transportation Equipment	459	373	W	2	W	W	0	0	7	17.6
38	Instruments and Related Products	239	217	0	W	W	W	0	0	2	15.0
39	Misc. Manufacturing Industries	61	51	0	W	W	W	0	0	*	35.9
	Total	8,909	5,646	57	172	1,965	54	287	89	640	5.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[d] "Other" energy sources include such combustible energy sources as wood waste, hydrogen, or waste oils and tars.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • To minimize respondent burden, quantities of petroleum-based products (e.g., residual and distillate fuel oil and LPG) purchased, and associated expenditures, were not collected from the Refinery Industry, SIC 2911. These products are produced by petroleum refineries rather than purchased by them.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A17. Total Expenditures for Purchased Energy Sources by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Total	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
	RSE Column Factors:	0.5	0.5	1.4	1.2	0.7	1.2	1.3	1.7	1.3	
20	Food and Kindred Products	5,548	W	84	101	1,788	W	241	14	106	5.4
2011	*Meat Packing Plants*	281	184	2	3	87	W	W	0	W	16.8
2033	*Canned Fruits and Vegetables*	235	105	W	4	116	4	W	0	2	15.0
2037	*Frozen Fruits and Vegetables*	222	W	4	1	74	W	0	0	5	16.1
2046	*Wet Corn Milling*	459	181	W	*	158	*	103	W	W	18.4
2051	*Bread, Cake, and Related Products*	246	143	*	3	95	3	0	0	2	20.8
2061	*Cane Sugar, Except Refining*	32	10	W	8	4	W	W	0	2	14.0
2062	*Cane Sugar Refining*	60	W	6	3	40	*	0	0	W	28.0
2063	*Beet Sugar*	138	21	W	W	41	W	56	W	W	3.0
2075	*Soybean Oil Mills*	188	W	W	W	78	W	22	0	9	1.3
2082	*Malt Beverages*	221	123	W	W	59	W	28	0	W	10.4
21	Tobacco Products	102	63	2	W	W	W	W	0	W	22.2
22	Textile Mill Products	2,102	1,502	50	32	403	21	62	0	33	11.5
23	Apparel and Other Textile Products	685	W	W	4	102	W	W	0	4	23.7
24	Lumber and Wood Products	1,674	W	6	155	147	27	W	0	220	9.8
2421	*Sawmills and Planing Mills, General*	507	W	W	42	32	3	0	0	38	13.2
2436	*Softwood Veneer and Plywood*	150	W	W	7	6	W	0	0	16	15.1
2493	*Reconstituted Wood Products*	346	W	W	4	46	7	W	0	81	13.2
25	Furniture and Fixtures	543	426	W	5	91	W	W	0	7	13.3
2511	*Wood Furniture, Except Upholstered*	158	139	1	2	9	2	3	0	3	15.8
26	Paper and Allied Products	6,058	2,951	432	42	1,409	37	560	0	627	3.2
2611	*Pulp Mills*	263	98	55	5	49	2	12	0	42	11.8
2621	*Paper Mills*	2,882	1,364	238	19	647	11	346	0	257	5.2
2631	*Paperboard Mills*	1,716	635	122	8	448	4	198	0	301	2.9
27	Printing and Publishing	1,391	W	W	9	194	10	0	0	11	10.1
28	Chemicals and Allied Products	18,007	5,373	267	65	5,358	5,304	469	52	1,119	6.2
2812	*Alkalies and Chlorine*	601	W	W	1	118	W	W	0	46	8.8
2813	*Industrial Gases*	870	803	0	W	50	W	W	W	W	23.9
2816	*Inorganic Pigments*	215	86	2	W	61	W	W	W	47	9.1
2819	*Industrial Inorganic Chemicals, nec.*	1,515	941	11	8	344	1	64	43	Q	11.5
2821	*Plastics Materials and Resins*	2,966	658	11	4	507	1,691	35	0	59	8.4
2822	*Synthetic Rubber*	418	92	W	*	109	178	W	0	30	24.5
2823	*Cellulosic Manmade Fibers*	70	16	0	1	W	W	W	0	W	1.1
2824	*Organic Fibers, Noncellulosic*	459	W	W	2	97	W	W	0	W	7.2
2861	*Gum and Wood Chemicals*	48	W	W	W	8	W	W	W	19	6.7
2865	*Cyclic Crudes and Intermediates*	672	176	23	5	209	W	W	0	124	17.9
2869	*Industrial Organic Chemicals, nec.*	6,661	795	14	W	2,071	3,222	165	W	385	11.1
2873	*Nitrogenous Fertilizers*	1,338	140	0	1	1,186	*	0	0	11	12.9
2874	*Phosphatic Fertilizers*	272	94	W	W	35	*	W	0	131	5.5
2895	*Carbon Black*	201	23	133	W	45	W	0	0	*	11.5
29	Petroleum and Coal Products	3,720	W	6	69	1,731	11	12	W	310	10.9
2911	*Petroleum Refining*	3,180	W	0	W	1,582	W	W	0	185	8.1
30	Rubber and Misc. Plastics Products	2,874	2,382	27	16	388	28	11	0	21	7.4
3011	*Tires and Inner Tubes*	281	194	11	W	60	W	4	0	7	10.6
308	*Miscellaneous Plastics Products, nec.*	2,192	1,891	9	8	246	23	5	0	11	10.2
31	Leather and Leather Products	86	62	4	W	W	W	0	0	W	19.2
32	Stone, Clay and Glass Products	3,630	W	W	128	1,203	W	460	16	52	8.0
3211	*Flat Glass*	191	70	W	*	110	1	0	0	W	16.2
3221	*Glass Containers*	399	208	6	2	180	W	0	0	W	7.1
3229	*Pressed and Blown Glass, nec.*	287	W	W	1	143	W	0	0	2	10.1
3241	*Cement, Hydraulic*	864	430	W	22	56	W	331	3	18	12.5
3274	*Lime*	217	54	W	W	28	*	114	2	11	17.0
3296	*Mineral Wool*	252	143	W	*	96	W	0	W	*	11.9
33	Primary Metal Industries	10,748	W	114	57	2,185	W	1,657	1,530	309	5.5
331	*Blast Furnace and Basic Steel Products*	6,630	2,108	110	27	1,364	11	1,617	1,296	97	8.7
3312	*Blast Furnaces and Steel Mills*	5,998	1,701	110	25	1,226	W	1,571	W	68	7.2
3313	*Electrometallurgical Products*	217	141	0	1	9	W	45	W	17	35.7
3321	*Gray and Ductile Iron Foundries*	694	W	W	4	89	W	W	195	6	12.6
3331	*Primary Copper*	108	W	W	W	48	W	W	0	2	1.1
3334	*Primary Aluminum*	1,319	W	W	3	45	W	W	W	170	1.3
3339	*Primary Nonferrous Metals, nec.*	213	119	W	W	30	1	25	28	9	12.6
3353	*Aluminum Sheet, Plate, and Foil*	319	W	0	W	142	1	W	0	9	6.2

See footnotes at end of table.

Table A17. Total Expenditures for Purchased Energy Sources by Industry Group and Selected Industries, 1994: Part 2 (Continued)
(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Total	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	Coke and Breeze	Other[d]	RSE Row Factors
	RSE Column Factors:	0.5	0.5	1.4	1.2	0.7	1.2	1.3	1.7	1.3	
34	Fabricated Metal Products	3,068	2,121	11	24	758	46	W	W	Q	12.5
35	Industrial Machinery and Equipment	2,468	W	W	21	409	W	17	W	30	8.9
357	*Computer and Office Equipment*	264	246	W	W	16	W	0	0	W	24.8
36	Electronic and Other Electric Equipment	2,296	W	9	10	312	14	W	W	145	12.8
37	Transportation Equipment	2,729	W	30	26	514	20	49	W	68	9.5
3711	*Motor Vehicles and Car Bodies*	642	411	W	2	170	W	W	0	30	21.9
3714	*Motor Vehicle Parts and Accessories*	903	W	W	3	179	7	W	W	13	14.9
38	Instruments and Related Products	1,017	834	11	7	110	W	W	0	9	12.3
3841	*Surgical and Medical Instruments*	98	86	W	*	W	W	0	0	Q	22.4
39	Misc. Manufacturing Industries	436	318	W	5	86	4	W	0	W	17.3
	Total	69,184	35,970	1,091	776	17,216	5,681	3,638	1,631	3,181	3.6

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[d] "Other" energy sources include such combustible energy sources as wood waste, hydrogen, or waste oils and tars.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • To minimize respondent burden, quantities of petroleum-based products (e.g., residual and distillate fuel oil and LPG) purchased, and associated expenditures, were not collected from the Refinery Industry, SIC 2911. These products are produced by petroleum refineries rather than purchased by them.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A18. Total Expenditures for Purchased Electricity and Steam by Type of Supplier, Census Region, and Industry Group, 1994: Part 1

(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Electricity		Steam		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
		Total United States				
	RSE Column Factors:	0.2	1.9	1.6	1.4	
20	Food and Kindred Products	3,160	W	49	13	9.9
21	Tobacco Products	63	0	W	0	58.2
22	Textile Mill Products	W	W	9	19	15.1
23	Apparel and Other Textile Products	564	W	4	W	41.3
24	Lumber and Wood Products	1,103	W	6	9	10.9
25	Furniture and Fixtures	W	W	W	W	22.6
26	Paper and Allied Products	2,920	31	45	53	6.8
27	Printing and Publishing	1,162	W	7	2	19.9
28	Chemicals and Allied Products	4,991	382	91	228	8.2
29	Petroleum and Coal Products	1,525	W	70	65	8.9
30	Rubber and Misc. Plastics Products	2,377	5	W	5	15.6
31	Leather and Leather Products	62	0	0	W	38.9
32	Stone, Clay and Glass Products	1,718	W	W	W	17.6
33	Primary Metal Industries	4,812	W	W	31	10.4
34	Fabricated Metal Products	W	W	W	4	22.4
35	Industrial Machinery and Equipment	1,937	W	W	W	22.2
36	Electronic and Other Electric Equipment	1,793	W	W	W	21.0
37	Transportation Equipment	1,971	W	W	13	17.3
38	Instruments and Related Products	826	8	W	W	17.5
39	Misc. Manufacturing Industries	W	W	W	W	31.2
	Total	35,340	630	322	454	4.1
		Northeast Census Region				
	RSE Column Factors:	0.3	1.5	1.6	1.3	
20	Food and Kindred Products	W	W	W	W	21.8
21	Tobacco Products	2	0	0	0	81.2
22	Textile Mill Products	W	W	W	8	21.0
23	Apparel and Other Textile Products	W	W	W	0	146.8
24	Lumber and Wood Products	W	W	0	W	31.2
25	Furniture and Fixtures	37	0	0	0	40.6
26	Paper and Allied Products	583	W	W	23	11.3
27	Printing and Publishing	271	W	W	0	20.1
28	Chemicals and Allied Products	549	25	W	W	11.2
29	Petroleum and Coal Products	172	0	W	W	15.8
30	Rubber and Misc. Plastics Products	476	W	2	W	19.2
31	Leather and Leather Products	25	0	0	0	46.8
32	Stone, Clay and Glass Products	316	W	0	W	14.8
33	Primary Metal Industries	800	W	W	W	21.5
34	Fabricated Metal Products	398	W	W	W	23.5
35	Industrial Machinery and Equipment	W	W	0	W	25.1
36	Electronic and Other Electric Equipment	482	W	W	W	25.0
37	Transportation Equipment	W	W	0	W	23.7
38	Instruments and Related Products	292	6	W	W	21.1
39	Misc. Manufacturing Industries	W	W	W	W	31.4
	Total	5,912	111	56	114	7.1

See footnotes at end of table.

Table A18. Total Expenditures for Purchased Electricity and Steam by Type of Supplier, Census Region, and Industry Group, 1994: Part 1 (Continued)
(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Electricity		Steam		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
		Midwest Census Region				
	RSE Column Factors:	0.3	1.8	1.5	1.3	
20	Food and Kindred Products	W	W	31	0	12.1
21	Tobacco Products	W	0	0	0	126.5
22	Textile Mill Products	W	0	0	W	39.8
23	Apparel and Other Textile Products	50	0	W	0	49.9
24	Lumber and Wood Products	W	W	W	0	26.6
25	Furniture and Fixtures	124	0	W	W	30.0
26	Paper and Allied Products	W	W	23	W	13.8
27	Printing and Publishing	350	0	W	W	23.5
28	Chemicals and Allied Products	1,193	36	24	38	11.7
29	Petroleum and Coal Products	W	0	W	W	19.2
30	Rubber and Misc. Plastics Products	W	W	W	0	23.4
31	Leather and Leather Products	W	0	0	W	48.4
32	Stone, Clay and Glass Products	441	0	W	0	22.1
33	Primary Metal Industries	1,742	W	W	26	13.1
34	Fabricated Metal Products	W	W	W	W	28.4
35	Industrial Machinery and Equipment	W	W	W	0	24.2
36	Electronic and Other Electric Equipment	405	W	W	0	24.5
37	Transportation Equipment	838	W	W	W	26.2
38	Instruments and Related Products	W	W	0	0	23.3
39	Misc. Manufacturing Industries	62	0	0	0	53.2
	Total	10,227	101	111	80	7.1
		South Census Region				
	RSE Column Factors:	0.3	2.2	1.2	1.4	
20	Food and Kindred Products	W	*	11	W	17.8
21	Tobacco Products	W	0	W	0	51.8
22	Textile Mill Products	W	W	W	W	19.8
23	Apparel and Other Textile Products	281	W	W	W	30.2
24	Lumber and Wood Products	527	W	W	W	14.0
25	Furniture and Fixtures	W	W	W	0	30.7
26	Paper and Allied Products	W	W	9	W	11.8
27	Printing and Publishing	365	0	W	W	36.3
28	Chemicals and Allied Products	W	W	52	143	9.9
29	Petroleum and Coal Products	710	W	W	W	13.1
30	Rubber and Misc. Plastics Products	W	W	W	4	13.2
31	Leather and Leather Products	W	0	0	0	70.3
32	Stone, Clay and Glass Products	623	W	0	W	14.8
33	Primary Metal Industries	W	0	0	0	11.1
34	Fabricated Metal Products	W	0	0	0	18.5
35	Industrial Machinery and Equipment	468	0	0	0	18.5
36	Electronic and Other Electric Equipment	538	0	0	0	22.2
37	Transportation Equipment	525	W	0	0	21.3
38	Instruments and Related Products	187	0	0	0	44.4
39	Misc. Manufacturing Industries	108	0	0	0	44.4
	Total	13,636	338	144	170	7.5

See footnotes at end of table.

Table A18. Total Expenditures for Purchased Electricity and Steam by Type of Supplier, Census Region, and Industry Group, 1994: Part 1 (Continued)

(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Electricity		Steam		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
		West Census Region				
	RSE Column Factors:	0.3	1.8	1.4	1.2	
20	Food and Kindred Products	650	8	W	8	14.0
21	Tobacco Products	0	0	0	0	0.0
22	Textile Mill Products	W	W	W	0	36.4
23	Apparel and Other Textile Products	W	W	W	0	48.8
24	Lumber and Wood Products	319	W	W	5	17.3
25	Furniture and Fixtures	W	W	0	0	48.8
26	Paper and Allied Products	W	W	W	26	16.0
27	Printing and Publishing	176	*	0	0	18.3
28	Chemicals and Allied Products	W	W	W	W	14.2
29	Petroleum and Coal Products	W	W	W	44	11.8
30	Rubber and Misc. Plastics Products	270	0	0	W	21.4
31	Leather and Leather Products	W	0	0	0	94.5
32	Stone, Clay and Glass Products	338	0	0	W	25.1
33	Primary Metal Industries	W	W	0	W	17.3
34	Fabricated Metal Products	W	0	0	0	21.3
35	Industrial Machinery and Equipment	278	0	W	0	36.6
36	Electronic and Other Electric Equipment	368	0	0	0	21.3
37	Transportation Equipment	W	W	W	W	23.6
38	Instruments and Related Products	W	W	W	0	21.3
39	Misc. Manufacturing Industries	51	0	0	0	54.9
	Total	5,566	80	11	89	6.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] See Glossary for definition of Electric Utility.

[c] Includes independent power producers, small power producers, cogenerators not located at the establishment site, and any other supplier(s), such as producers, brokers, and marketers.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A18. Total Expenditures for Purchased Electricity and Steam by Type of Supplier, Industry Group, and Selected Industries, 1994: Part 2

(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Electricity		Steam		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	RSE Column Factors:	0.3	1.6	1.4	1.3	
20	Food and Kindred Products	3,160	W	49	13	9.9
2011	*Meat Packing Plants*	184	0	W	0	22.1
2033	*Canned Fruits and Vegetables*	105	0	W	W	23.5
2037	*Frozen Fruits and Vegetables*	132	W	W	3	20.5
2046	*Wet Corn Milling*	W	W	W	W	27.0
2051	*Bread, Cake, and Related Products*	W	W	W	0	24.5
2061	*Cane Sugar, Except Refining*	10	0	0	0	21.3
2062	*Cane Sugar Refining*	W	0	W	0	44.2
2063	*Beet Sugar*	21	0	0	0	9.1
2075	*Soybean Oil Mills*	W	0	4	W	1.2
2082	*Malt Beverages*	123	0	0	0	21.3
21	Tobacco Products	63	0	W	0	42.6
22	Textile Mill Products	W	W	9	19	15.1
23	Apparel and Other Textile Products	564	W	4	W	38.9
24	Lumber and Wood Products	1,103	W	6	9	10.9
2421	*Sawmills and Planing Mills, General*	384	W	W	5	16.1
2436	*Softwood Veneer and Plywood*	115	W	0	W	22.7
2493	*Reconstituted Wood Products*	W	0	W	W	16.6
25	Furniture and Fixtures	W	W	W	W	20.0
2511	*Wood Furniture, Except Upholstered*	139	0	W	0	29.2
26	Paper and Allied Products	2,920	31	45	53	6.8
2611	*Pulp Mills*	W	W	0	5	20.3
2621	*Paper Mills*	W	W	14	31	10.2
2631	*Paperboard Mills*	W	W	26	6	5.7
27	Printing and Publishing	1,162	W	7	2	19.9
28	Chemicals and Allied Products	4,991	382	91	228	8.2
2812	*Alkalies and Chlorine*	W	0	W	W	9.7
2813	*Industrial Gases*	803	0	0	W	25.7
2816	*Inorganic Pigments*	W	W	W	W	15.4
2819	*Industrial Inorganic Chemicals, nec.*	W	W	W	2	21.6
2821	*Plastics Materials and Resins*	644	15	11	23	13.1
2822	*Synthetic Rubber*	W	W	W	11	25.5
2823	*Cellulosic Manmade Fibers*	W	W	0	W	1.1
2824	*Organic Fibers, Noncellulosic*	W	W	0	W	11.1
2861	*Gum and Wood Chemicals*	W	W	0	W	10.4
2865	*Cyclic Crudes and Intermediates*	W	W	W	9	21.2
2869	*Industrial Organic Chemicals, nec.*	726	69	35	94	11.1
2873	*Nitrogenous Fertilizers*	W	W	0	7	19.5
2874	*Phosphatic Fertilizers*	94	0	0	W	9.7
2895	*Carbon Black*	23	0	0	0	21.3
29	Petroleum and Coal Products	1,525	W	70	65	8.9
2911	*Petroleum Refining*	1,358	W	67	W	9.1
30	Rubber and Misc. Plastics Products	2,377	5	W	5	15.6
3011	*Tires and Inner Tubes*	194	0	W	W	14.2
308	*Miscellaneous Plastics Products, nec.*	W	W	W	2	14.8
31	Leather and Leather Products	62	0	0	W	34.4
32	Stone, Clay and Glass Products	1,718	W	W	W	17.6
3211	*Flat Glass*	70	0	0	W	31.5
3221	*Glass Containers*	208	0	0	0	12.2
3229	*Pressed and Blown Glass, nec.*	136	W	0	W	14.3
3241	*Cement, Hydraulic*	430	0	0	0	18.3
3274	*Lime*	54	0	0	0	33.5
3296	*Mineral Wool*	143	0	0	0	18.3
33	Primary Metal Industries	4,812	W	W	31	10.4
331	*Blast Furnace and Basic Steel Products*	W	W	W	29	15.4
3312	*Blast Furnaces and Steel Mills*	W	W	W	W	16.3
3313	*Electrometallurgical Products*	W	W	0	W	88.2
3321	*Gray and Ductile Iron Foundries*	W	0	0	0	21.3
3331	*Primary Copper*	W	0	0	0	3.0
3334	*Primary Aluminum*	W	0	W	0	1.5
3339	*Primary Nonferrous Metals, nec.*	119	0	0	W	23.4
3353	*Aluminum Sheet, Plate, and Foil*	W	0	W	0	10.8

See footnotes at end of table.

Table A18. Total Expenditures for Purchased Electricity and Steam by Type of Supplier, Industry Group, and Selected Industries, 1994: Part 2 (Continued)
(Estimates in Million Dollars)

SIC Code[a]	Industry Group and Industry	Electricity		Steam		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	RSE Column Factors:	0.3	1.6	1.4	1.3	
34	Fabricated Metal Products	W	W	W	4	22.4
35	Industrial Machinery and Equipment	1,937	W	W	W	22.2
357	*Computer and Office Equipment*	246	0	W	0	42.6
36	Electronic and Other Electric Equipment	1,793	W	W	W	18.6
37	Transportation Equipment	1,971	W	W	13	17.3
3711	*Motor Vehicles and Car Bodies*	W	W	W	W	32.4
3714	*Motor Vehicle Parts and Accessories*	664	W	0	6	20.3
38	Instruments and Related Products	826	8	W	W	17.5
3841	*Surgical and Medical Instruments*	86	0	0	0	24.3
39	Misc. Manufacturing Industries	W	W	W	W	27.6
	Total	35,340	630	322	454	4.1

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] See Glossary for definition of Electric Utility.
[c] Includes independent power producers, small power producers, cogenerators not located at the establishment site, and any other supplier(s), such as producers, brokers, and marketers.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A19. Total Expenditures for Purchased Electricity and Steam by Type of Supplier, Census Region, and Economic Characteristics of the Establishment, 1994

(Estimates in Million Dollars)

Economic Characteristics[a]	Electricity		Steam		RSE Row Factors
	Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	Total United States				
RSE Column Factors:	0.3	2.0	1.6	1.2	
Value of Shipments and Receipts (million dollars)					
Under 20	7,836	25	22	16	13.4
20-49	6,248	29	22	43	8.2
50-99	5,240	38	28	75	7.3
100-249	6,285	56	71	85	7.3
250-499	3,947	29	53	82	9.4
500 and Over	5,784	452	125	152	7.6
Total	35,340	630	322	454	4.1
Employment Size					
Under 50	3,808	24	12	9	13.9
50-99	3,376	26	15	57	11.3
100-249	7,702	43	59	90	9.0
250-499	6,675	37	77	53	7.4
500-999	6,369	57	49	118	6.2
1,000 and Over	7,410	443	110	127	7.3
Total	35,340	630	322	454	4.1
	Northeast Census Region				
RSE Column Factors:	0.4	1.4	1.7	1.1	
Value of Shipments and Receipts (million dollars)					
Under 20	1,660	12	11	11	19.5
20-49	W	W	7	15	11.4
50-99	938	W	W	33	12.6
100-249	947	15	W	14	9.6
250-499	W	W	W	10	20.6
500 and Over	694	W	W	31	12.4
Total	5,912	111	56	114	7.1
Employment Size					
Under 50	792	W	3	W	21.4
50-99	641	W	8	18	19.0
100-249	1,363	W	9	19	15.1
250-499	1,052	8	W	W	10.4
500-999	1,009	W	11	46	12.4
1,000 and Over	1,055	W	W	W	12.3
Total	5,912	111	56	114	7.1

See footnotes at end of table.

Table A19. Total Expenditures for Purchased Electricity and Steam by Type of Supplier, Census Region, and Economic Characteristics of the Establishment, 1994 (Continued)

(Estimates in Million Dollars)

Economic Characteristics[a]	Electricity		Steam		RSE Row Factors
	Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	Midwest Census Region				
RSE Column Factors:	0.3	2.2	1.3	1.3	
Value of Shipments and Receipts (million dollars)					
Under 20	W	W	W	W	19.4
20-49	W	W	3	9	18.8
50-99	1,407	W	14	19	14.7
100-249	1,533	13	36	8	11.7
250-499	W	W	15	W	13.6
500 and Over	2,251	W	W	37	12.6
Total	10,227	101	111	80	7.1
Employment Size					
Under 50	W	W	Q	W	17.4
50-99	W	W	4	W	15.0
100-249	2,150	W	23	18	15.2
250-499	1,819	Q	16	W	15.0
500-999	W	W	23	10	10.7
1,000 and Over	2,788	63	39	34	12.0
Total	10,227	101	111	80	7.1
	South Census Region				
RSE Column Factors:	0.2	2.3	1.5	1.2	
Value of Shipments and Receipts (million dollars)					
Under 20	W	W	W	2	16.2
20-49	2,472	W	9	15	12.2
50-99	2,125	W	W	13	13.9
100-249	2,600	21	24	51	11.6
250-499	W	W	36	51	14.4
500 and Over	W	W	68	38	9.7
Total	13,636	338	144	170	7.5
Employment Size					
Under 50	W	W	W	W	22.3
50-99	W	W	W	18	14.8
100-249	2,901	W	24	45	13.6
250-499	2,936	13	39	W	12.3
500-999	W	W	16	39	10.3
1,000 and Over	W	W	W	38	10.1
Total	13,636	338	144	170	7.5

See footnotes at end of table.

Table A19. Total Expenditures for Purchased Electricity and Steam by Type of Supplier, Census Region, and Economic Characteristics of the Establishment, 1994 (Continued)

(Estimates in Million Dollars)

Economic Characteristics[a]	Electricity		Steam		RSE Row Factors
	Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	West Census Region				
RSE Column Factors:	0.3	1.7	1.7	1.2	
Value of Shipments and Receipts (million dollars)					
Under 20	1,469	W	W	W	20.6
20-49	919	W	3	4	15.3
50-99	770	W	W	10	12.3
100-249	1,206	7	W	13	13.7
250-499	W	W	W	W	16.1
500 and Over	W	W	0	46	11.6
Total	5,566	80	11	89	6.9
Employment Size					
Under 50	794	W	W	W	27.2
50-99	613	6	W	9	15.1
100-249	1,288	2	3	8	11.9
250-499	868	9	W	18	13.5
500-999	W	W	0	24	11.7
1,000 and Over	W	W	W	W	12.6
Total	5,566	80	11	89	6.9

[a] Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

[b] See Glossary for definition of Electric Utility.

[c] Includes independent power producers, small power producers, cogenerators not located at the establishment site, and any other supplier(s), such as producers, brokers, and marketers.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Bureau of the Census, Industry Division, data files for the "1994 Annual Survey of Manufactures."

Table A20. Average Prices of Selected Purchased Energy Sources by Census Region and Industry Group, 1994: Part 1

(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)	Residual Fuel Oil (gallons)	Distillate Fuel Oil[b] (gallons)	Natural Gas[c] (1000 cu ft)	LPG (gallons)	Coal (short tons)	RSE Row Factors
		Total United States						
	RSE Column Factors:	0.7	1.2	1.5	0.7	1.8	0.7	
20	Food and Kindred Products	0.054	0.42	0.76	2.93	0.62	32.21	1.7
21	Tobacco Products	0.050	0.44	0.58	3.47	0.59	W	2.7
22	Textile Mill Products	0.046	0.44	0.60	3.56	0.50	41.88	3.2
23	Apparel and Other Textile Products	0.073	0.47	0.71	4.13	0.69	W	5.4
24	Lumber and Wood Products	0.054	0.39	0.85	3.34	0.60	W	2.3
25	Furniture and Fixtures	0.064	0.52	0.77	4.00	0.81	49.97	2.9
26	Paper and Allied Products	0.041	0.37	0.64	2.61	0.66	40.77	1.3
27	Printing and Publishing	0.067	0.51	0.77	4.21	0.73	--	3.1
28	Chemicals and Allied Products	0.034	0.37	0.67	2.22	0.40	37.34	1.7
29	Petroleum and Coal Products	0.043	0.45	0.62	2.26	0.50	26.97	3.5
30	Rubber and Misc. Plastics Products	0.054	0.40	0.63	3.63	0.74	50.29	2.6
31	Leather and Leather Products	0.075	0.33	0.65	3.68	0.72	--	4.9
32	Stone, Clay and Glass Products	0.048	0.42	0.76	2.91	0.64	36.56	1.9
33	Primary Metal Industries	0.034	0.39	0.63	2.80	0.61	47.98	2.0
34	Fabricated Metal Products	0.063	0.56	0.75	3.60	0.81	45.91	4.2
35	Industrial Machinery and Equipment	0.061	0.48	0.73	3.82	0.86	36.33	2.9
36	Electronic and Other Electric Equipment	0.054	0.52	0.73	3.67	0.51	47.33	3.2
37	Transportation Equipment	0.052	0.40	0.57	3.41	0.54	41.57	3.8
38	Instruments and Related Products	0.062	0.45	0.72	3.88	0.75	W	3.5
39	Misc. Manufacturing Industries	0.057	W	0.54	4.55	0.63	W	5.0
	Total	0.046	0.39	0.71	2.65	0.41	41.85	1.4
		Northeast Census Region						
	RSE Column Factors:	0.7	0.8	1.2	0.8	1.7	1.0	
20	Food and Kindred Products	0.072	0.46	0.70	3.57	0.73	52.87	3.6
21	Tobacco Products	0.081	W	W	3.55	W	--	5.2
22	Textile Mill Products	0.078	0.42	0.61	4.03	0.49	W	3.2
23	Apparel and Other Textile Products	0.089	0.48	0.67	4.34	1.05	--	9.7
24	Lumber and Wood Products	0.071	W	0.77	4.23	0.59	--	5.6
25	Furniture and Fixtures	0.087	W	0.72	4.67	0.72	--	10.5
26	Paper and Allied Products	0.061	0.40	0.65	3.34	0.60	42.40	1.8
27	Printing and Publishing	0.087	0.52	0.73	5.34	0.85	--	4.4
28	Chemicals and Allied Products	0.051	0.43	0.68	3.49	0.50	49.72	2.8
29	Petroleum and Coal Products	0.050	W	0.59	2.87	0.43	37.06	3.4
30	Rubber and Misc. Plastics Products	0.074	0.49	0.69	4.82	0.64	W	4.3
31	Leather and Leather Products	0.103	0.38	0.64	4.09	0.74	--	6.0
32	Stone, Clay and Glass Products	0.061	0.41	0.71	3.28	0.67	37.43	3.1
33	Primary Metal Industries	0.044	0.39	0.59	3.39	0.72	49.04	3.9
34	Fabricated Metal Products	0.079	0.46	0.73	4.34	0.84	W	5.8
35	Industrial Machinery and Equipment	0.080	0.49	0.69	4.59	0.80	--	3.4
36	Electronic and Other Electric Equipment	0.066	0.55	0.70	3.82	0.47	W	4.5
37	Transportation Equipment	0.072	0.45	0.63	3.99	0.55	38.05	4.0
38	Instruments and Related Products	0.079	0.45	0.74	4.26	0.87	W	3.4
39	Misc. Manufacturing Industries	0.058	W	0.68	4.78	0.74	W	6.3
	Total	0.063	0.42	0.67	3.64	0.56	46.81	1.5

See footnotes at end of table.

Table A20. Average Prices of Selected Purchased Energy Sources by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)	Residual Fuel Oil (gallons)	Distillate Fuel Oil[b] (gallons)	Natural Gas[c] (1000 cu ft)	LPG (gallons)	Coal (short tons)	RSE Row Factors
		Midwest Census Region						
	RSE Column Factors:	0.7	0.9	1.4	0.8	1.9	0.8	
20	Food and Kindred Products	0.046	0.35	0.84	2.73	0.53	30.34	3.0
21	Tobacco Products	W	--	W	W	--	--	0.0
22	Textile Mill Products	0.059	--	W	3.17	1.03	--	4.8
23	Apparel and Other Textile Products	0.063	--	W	4.06	0.48	--	8.1
24	Lumber and Wood Products	0.055	0.37	0.89	3.73	0.53	W	4.4
25	Furniture and Fixtures	0.055	W	0.82	3.58	0.78	W	4.5
26	Paper and Allied Products	0.040	0.34	0.68	2.87	0.71	39.52	1.8
27	Printing and Publishing	0.059	W	0.83	3.75	0.63	--	3.8
28	Chemicals and Allied Products	0.031	0.39	0.58	2.51	W	36.61	3.1
29	Petroleum and Coal Products	0.040	0.41	0.58	3.21	0.66	40.54	3.4
30	Rubber and Misc. Plastics Products	0.051	0.31	0.67	3.42	0.85	46.38	3.1
31	Leather and Leather Products	0.053	W	0.95	3.19	0.65	--	3.6
32	Stone, Clay and Glass Products	0.045	W	0.86	2.93	0.63	34.23	3.7
33	Primary Metal Industries	0.038	0.41	0.70	2.68	0.52	47.54	2.5
34	Fabricated Metal Products	0.058	0.75	0.71	3.31	0.76	45.80	5.7
35	Industrial Machinery and Equipment	0.058	W	0.72	3.63	0.78	36.33	3.9
36	Electronic and Other Electric Equipment	0.048	W	0.73	3.37	0.51	45.87	3.6
37	Transportation Equipment	0.049	0.40	0.42	3.26	0.49	W	4.7
38	Instruments and Related Products	0.054	W	0.47	3.42	0.61	--	4.4
39	Misc. Manufacturing Industries	0.064	--	0.53	4.41	0.64	W	5.8
	Total	0.044	0.40	0.73	2.91	0.29	40.75	2.6
		South Census Region						
	RSE Column Factors:	0.7	0.9	1.5	0.8	1.9	0.7	
20	Food and Kindred Products	0.052	0.42	0.69	3.13	0.57	44.82	2.2
21	Tobacco Products	0.049	0.44	0.57	3.50	0.59	W	2.6
22	Textile Mill Products	0.044	0.45	0.60	3.50	0.49	41.66	4.0
23	Apparel and Other Textile Products	0.066	W	0.82	4.06	0.67	W	4.3
24	Lumber and Wood Products	0.056	W	0.77	3.20	0.62	W	3.0
25	Furniture and Fixtures	0.061	W	0.82	4.21	0.81	51.08	3.0
26	Paper and Allied Products	0.038	0.35	0.60	2.43	0.63	41.09	1.4
27	Printing and Publishing	0.060	0.44	0.63	4.10	0.69	--	3.9
28	Chemicals and Allied Products	0.034	0.35	0.63	2.15	0.41	36.40	1.6
29	Petroleum and Coal Products	0.039	0.38	0.63	2.08	0.65	W	2.9
30	Rubber and Misc. Plastics Products	0.047	0.39	0.59	3.34	0.69	48.85	2.5
31	Leather and Leather Products	0.073	W	W	5.07	0.68	--	3.7
32	Stone, Clay and Glass Products	0.043	0.33	0.73	2.80	0.58	37.79	2.6
33	Primary Metal Industries	0.032	0.34	0.63	2.81	0.57	45.43	2.0
34	Fabricated Metal Products	0.056	W	0.81	3.72	0.86	W	3.9
35	Industrial Machinery and Equipment	0.053	W	0.76	3.72	0.94	--	3.8
36	Electronic and Other Electric Equipment	0.048	0.40	0.79	3.62	0.53	W	4.2
37	Transportation Equipment	0.047	0.32	0.79	3.49	0.53	W	2.9
38	Instruments and Related Products	0.046	0.42	0.65	4.09	0.70	--	6.6
39	Misc. Manufacturing Industries	0.055	W	0.38	4.11	0.54	--	6.8
	Total	0.041	0.36	0.68	2.40	0.41	40.60	1.4

See footnotes at end of table.

Table A20. Average Prices of Selected Purchased Energy Sources by Census Region and Industry Group, 1994: Part 1 (Continued)

(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)	Residual Fuel Oil (gallons)	Distillate Fuel Oil[b] (gallons)	Natural Gas[c] (1000 cu ft)	LPG (gallons)	Coal (short tons)	RSE Row Factors
		West Census Region						
	RSE Column Factors:	0.7	0.9	1.6	0.9	1.4	0.8	
20	Food and Kindred Products	0.063	0.43	0.82	2.87	0.69	30.71	2.6
21	Tobacco Products	--	--	--	--	--	--	0.0
22	Textile Mill Products	0.071	--	--	3.76	0.87	--	7.3
23	Apparel and Other Textile Products	0.083	--	--	4.20	0.95	--	6.2
24	Lumber and Wood Products	0.048	0.42	0.96	2.99	0.65	--	3.7
25	Furniture and Fixtures	0.091	--	W	5.07	0.99	--	7.1
26	Paper and Allied Products	0.037	0.39	0.80	2.48	0.78	W	1.8
27	Printing and Publishing	0.081	--	1.08	4.32	0.86	--	4.1
28	Chemicals and Allied Products	0.034	0.56	1.02	2.04	0.92	43.35	4.4
29	Petroleum and Coal Products	0.051	--	0.71	2.11	0.92	W	3.9
30	Rubber and Misc. Plastics Products	0.072	W	0.95	4.68	0.90	W	5.8
31	Leather and Leather Products	0.084	--	--	W	W	--	15.3
32	Stone, Clay and Glass Products	0.053	0.46	0.75	2.84	0.74	36.50	3.4
33	Primary Metal Industries	0.027	W	0.57	2.58	0.68	57.33	1.7
34	Fabricated Metal Products	0.079	--	0.84	4.10	0.92	--	4.8
35	Industrial Machinery and Equipment	0.072	--	0.96	4.21	1.30	--	4.9
36	Electronic and Other Electric Equipment	0.061	--	0.83	4.57	1.15	--	5.6
37	Transportation Equipment	0.058	W	0.44	3.50	0.83	--	7.0
38	Instruments and Related Products	0.067	--	1.04	3.76	0.76	--	5.2
39	Misc. Manufacturing Industries	0.052	--	W	5.57	1.23	--	9.7
	Total	0.047	0.40	0.83	2.64	0.77	39.87	2.1

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
-- Estimation is not applicable.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A20. Average Prices of Selected Purchased Energy Sources by Industry Group and Selected Industries, 1994: Part 2

(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)	Residual Fuel Oil (gallons)	Distillate Fuel Oil[b] (gallons)	Natural Gas[c] (1000 cu ft)	LPG (gallons)	Coal (short tons)	RSE Row Factors
	RSE Column Factors:	0.8	1.0	1.3	0.8	1.6	0.8	
20	Food and Kindred Products	0.054	0.42	0.76	2.93	0.62	32.21	1.7
2011	*Meat Packing Plants*	0.047	0.34	0.79	2.47	0.45	W	3.4
2033	*Canned Fruits and Vegetables*	0.070	0.44	0.79	2.79	0.67	W	2.7
2037	*Frozen Fruits and Vegetables*	0.047	0.41	0.57	2.86	0.66	--	3.6
2046	*Wet Corn Milling*	0.035	W	0.78	2.38	0.46	29.06	2.7
2051	*Bread, Cake, and Related Products*	0.059	0.53	0.62	3.58	0.75	--	4.9
2061	*Cane Sugar, Except Refining*	0.066	0.46	0.84	2.48	1.03	W	1.8
2062	*Cane Sugar Refining*	0.070	0.46	0.63	2.57	0.88	--	4.8
2063	*Beet Sugar*	0.048	0.39	0.82	2.27	0.62	31.48	1.0
2075	*Soybean Oil Mills*	0.041	0.33	0.63	2.59	0.74	32.75	1.1
2082	*Malt Beverages*	0.053	W	W	2.75	0.75	35.81	2.4
21	Tobacco Products	0.050	0.44	0.58	3.47	0.59	W	2.7
22	Textile Mill Products	0.046	0.44	0.60	3.56	0.50	41.88	3.2
23	Apparel and Other Textile Products	0.073	0.47	0.71	4.13	0.69	W	5.4
24	Lumber and Wood Products	0.054	0.39	0.85	3.34	0.60	W	2.3
2421	*Sawmills and Planing Mills, General*	0.056	W	0.83	3.00	0.72	--	2.7
2436	*Softwood Veneer and Plywood*	0.043	W	0.71	2.43	0.53	--	2.6
2493	*Reconstituted Wood Products*	0.045	0.37	0.73	3.09	0.44	W	2.6
25	Furniture and Fixtures	0.064	0.52	0.77	4.00	0.81	49.97	2.9
2511	*Wood Furniture, Except Upholstered*	0.064	0.51	0.82	4.25	0.79	51.10	3.1
26	Paper and Allied Products	0.041	0.37	0.64	2.61	0.66	40.77	1.3
2611	*Pulp Mills*	0.038	0.37	0.65	2.39	0.52	37.18	2.7
2621	*Paper Mills*	0.036	0.38	0.60	2.51	0.55	39.59	1.3
2631	*Paperboard Mills*	0.039	0.36	0.64	2.45	0.75	43.81	1.1
27	Printing and Publishing	0.067	0.51	0.77	4.21	0.73	--	3.2
28	Chemicals and Allied Products	0.034	0.37	0.67	2.22	0.40	37.34	1.7
2812	*Alkalies and Chlorine*	0.026	W	0.58	2.18	W	W	1.1
2813	*Industrial Gases*	0.035	--	W	2.26	W	W	3.5
2816	*Inorganic Pigments*	0.036	0.34	0.67	2.84	0.69	W	1.9
2819	*Industrial Inorganic Chemicals, nec.*	0.022	0.44	0.71	2.36	0.62	43.03	2.4
2821	*Plastics Materials and Resins*	0.039	0.47	0.68	2.19	0.50	39.78	2.1
2822	*Synthetic Rubber*	0.039	0.43	0.68	2.06	0.61	W	2.7
2823	*Cellulosic Manmade Fibers*	0.038	--	0.55	W	W	W	0.0
2824	*Organic Fibers, Noncellulosic*	0.038	0.37	0.61	2.57	0.57	W	1.5
2861	*Gum and Wood Chemicals*	0.043	W	0.31	2.52	0.42	W	1.9
2865	*Cyclic Crudes and Intermediates*	0.038	0.36	0.53	2.37	W	W	2.8
2869	*Industrial Organic Chemicals, nec.*	0.039	0.41	0.69	2.13	0.36	31.93	2.0
2873	*Nitrogenous Fertilizers*	0.037	--	0.71	2.01	0.96	--	2.7
2874	*Phosphatic Fertilizers*	0.043	0.42	0.70	2.70	0.67	W	1.3
2895	*Carbon Black*	0.040	0.34	0.70	2.37	W	--	1.5
29	Petroleum and Coal Products	0.043	0.45	0.62	2.26	0.50	26.97	3.5
2911	*Petroleum Refining*	0.041	--	W	2.21	W	42.85	1.2
30	Rubber and Misc. Plastics Products	0.054	0.40	0.63	3.63	0.74	50.29	2.6
3011	*Tires and Inner Tubes*	0.042	0.37	0.46	2.66	0.56	48.38	2.5
308	*Miscellaneous Plastics Products, nec.*	0.056	0.43	0.69	3.97	0.77	57.95	3.4
31	Leather and Leather Products	0.075	0.33	0.65	3.68	0.72	--	5.0
32	Stone, Clay and Glass Products	0.048	0.42	0.76	2.91	0.64	36.56	1.9
3211	*Flat Glass*	0.047	W	0.73	2.74	0.63	--	2.9
3221	*Glass Containers*	0.049	0.45	0.62	2.82	0.61	--	1.6
3229	*Pressed and Blown Glass, nec.*	0.043	W	0.49	3.02	0.65	--	2.8
3241	*Cement, Hydraulic*	0.040	0.34	0.63	2.30	0.83	35.61	3.8
3274	*Lime*	0.047	W	W	2.29	0.54	37.95	2.7
3296	*Mineral Wool*	0.042	W	0.60	2.70	0.57	--	1.6
33	Primary Metal Industries	0.034	0.39	0.63	2.80	0.61	47.98	2.0
331	*Blast Furnace and Basic Steel Products*	0.038	0.39	0.71	2.67	0.79	47.76	2.4
3312	*Blast Furnaces and Steel Mills*	0.037	0.39	0.72	2.61	0.69	47.30	1.6
3313	*Electrometallurgical Products*	0.029	--	0.73	3.83	0.76	72.42	6.4
3321	*Gray and Ductile Iron Foundries*	0.045	W	0.79	3.18	0.58	W	2.7
3331	*Primary Copper*	0.038	W	0.51	2.24	0.41	W	0.0
3334	*Primary Aluminum*[d]	0.022	W	0.60	2.76	0.56	312.86	1.1
3339	*Primary Nonferrous Metals, nec.*	0.028	W	0.71	2.56	0.75	55.62	2.7
3353	*Aluminum Sheet, Plate, and Foil*	0.039	--	0.66	2.78	0.53	W	1.1

See footnotes at end of table.

Table A20. Average Prices of Selected Purchased Energy Sources by Industry Group and Selected Industries, 1994: Part 2 (Continued)

(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)	Residual Fuel Oil (gallons)	Distillate Fuel Oil[b] (gallons)	Natural Gas[c] (1000 cu ft)	LPG (gallons)	Coal (short tons)	RSE Row Factors
	RSE Column Factors:	0.8	1.0	1.3	0.8	1.6	0.8	
34	Fabricated Metal Products	0.063	0.56	0.75	3.60	0.81	45.91	4.2
35	Industrial Machinery and Equipment	0.061	0.48	0.73	3.82	0.86	36.33	2.9
357	*Computer and Office Equipment*	0.059	W	0.60	3.03	0.83	--	4.5
36	Electronic and Other Electric Equipment	0.054	0.52	0.73	3.67	0.51	47.33	3.2
37	Transportation Equipment	0.052	0.40	0.57	3.41	0.54	41.57	3.8
3711	*Motor Vehicles and Car Bodies*	0.046	W	0.65	3.33	1.07	W	7.6
3714	*Motor Vehicle Parts and Accessories*	0.050	W	0.44	3.37	0.45	W	5.3
38	Instruments and Related Products	0.062	0.45	0.72	3.88	0.75	W	3.5
3841	*Surgical and Medical Instruments*	0.064	W	0.67	4.70	0.67	--	4.1
39	Misc. Manufacturing Industries	0.057	W	0.54	4.55	0.63	W	5.0
	Total	0.046	0.39	0.71	2.65	0.41	41.85	1.4

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[d] The price estimates for coal for SIC 3334 include anthracite coal for the production of carbon anodes. Because of the high cost of transporting anthracite from the East Coast to the West and South, the prices of coal in those regions are extremely high.

NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
-- Estimation is not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A20. Average Prices of Selected Purchased Energy Sources by Census Region and Industry Group, 1994: Part 3

(Estimates in Dollars per Million Btu)

SIC Code[a]	Industry Group and Industry	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	RSE Row Factors
		Total United States						
	RSE Column Factors:	0.7	1.2	1.5	0.7	1.8	0.7	
20	Food and Kindred Products	15.74	2.79	5.47	2.85	7.15	1.46	1.7
21	Tobacco Products	14.55	2.92	4.17	3.37	6.87	W	2.7
22	Textile Mill Products	13.54	2.94	4.32	3.46	5.77	1.88	3.2
23	Apparel and Other Textile Products	21.50	3.14	5.15	4.01	8.01	W	5.4
24	Lumber and Wood Products	15.88	2.61	6.14	3.24	6.56	W	2.3
25	Furniture and Fixtures	18.69	3.48	5.57	3.88	9.42	2.27	2.9
26	Paper and Allied Products	12.10	2.49	4.59	2.53	7.18	1.83	1.3
27	Printing and Publishing	19.64	3.39	5.57	4.08	8.46	--	3.1
28	Chemicals and Allied Products	10.08	2.45	4.84	2.15	4.71	1.65	1.7
29	Petroleum and Coal Products	12.47	2.99	4.44	2.20	5.45	1.22	3.5
30	Rubber and Misc. Plastics Products	15.96	2.68	4.56	3.52	8.61	2.28	2.6
31	Leather and Leather Products	22.02	2.23	4.67	3.57	8.36	--	4.9
32	Stone, Clay and Glass Products	14.04	2.81	5.49	2.83	7.40	1.66	1.9
33	Primary Metal Industries	10.11	2.62	4.57	2.72	7.00	1.81	2.0
34	Fabricated Metal Products	18.38	3.75	5.44	3.49	9.45	2.08	4.2
35	Industrial Machinery and Equipment	17.97	3.18	5.24	3.71	10.02	1.65	2.9
36	Electronic and Other Electric Equipment	15.93	3.48	5.25	3.56	5.96	2.13	3.2
37	Transportation Equipment	15.21	2.68	4.12	3.31	6.28	1.87	3.8
38	Instruments and Related Products	18.12	2.99	5.20	3.77	8.67	W	3.5
39	Misc. Manufacturing Industries	16.73	W	3.88	4.42	7.38	W	5.0
	Total	13.38	2.58	5.14	2.58	4.82	1.75	1.4
		Northeast Census Region						
	RSE Column Factors:	0.7	0.8	1.2	0.8	1.7	1.0	
20	Food and Kindred Products	21.06	3.06	5.07	3.47	8.48	2.40	3.6
21	Tobacco Products	23.60	W	W	3.45	W	--	5.2
22	Textile Mill Products	22.75	2.81	4.41	3.91	5.72	W	3.2
23	Apparel and Other Textile Products	26.10	3.22	4.85	4.21	12.16	--	9.7
24	Lumber and Wood Products	20.89	W	5.52	4.11	6.39	--	5.6
25	Furniture and Fixtures	25.36	W	5.21	4.53	8.36	--	10.6
26	Paper and Allied Products	17.85	2.68	4.69	3.24	6.52	1.85	1.8
27	Printing and Publishing	25.53	3.46	5.26	5.19	9.91	--	4.4
28	Chemicals and Allied Products	14.86	2.87	4.89	3.39	5.69	2.20	3.0
29	Petroleum and Coal Products	14.58	W	4.23	2.79	4.69	1.68	3.4
30	Rubber and Misc. Plastics Products	21.70	3.28	4.97	4.68	7.49	W	4.3
31	Leather and Leather Products	30.26	2.57	4.60	3.98	8.61	--	6.0
32	Stone, Clay and Glass Products	17.80	2.74	5.10	3.18	7.80	1.70	3.1
33	Primary Metal Industries	12.88	2.63	4.27	3.29	8.26	1.84	3.9
34	Fabricated Metal Products	23.13	3.07	5.24	4.21	9.72	W	5.8
35	Industrial Machinery and Equipment	23.44	3.27	4.96	4.46	9.27	--	3.4
36	Electronic and Other Electric Equipment	19.36	3.68	5.03	3.70	5.46	W	4.5
37	Transportation Equipment	21.02	2.98	4.56	3.87	6.37	1.67	3.9
38	Instruments and Related Products	23.29	3.03	5.31	4.13	10.10	W	3.4
39	Misc. Manufacturing Industries	17.06	W	4.88	4.64	8.55	W	6.3
	Total	18.49	2.81	4.81	3.53	6.37	1.84	1.5

See footnotes at end of table.

Table A20. Average Prices of Selected Purchased Energy Sources by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Dollars per Million Btu)

SIC Code[a]	Industry Group and Industry	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	RSE Row Factors
		Midwest Census Region						
	RSE Column Factors:	0.7	0.9	1.4	0.8	1.9	0.8	
20	Food and Kindred Products	13.53	2.36	6.05	2.65	6.22	1.38	3.0
21	Tobacco Products	W	--	W	W	--	--	0.0
22	Textile Mill Products	17.15	--	W	3.08	11.92	--	4.8
23	Apparel and Other Textile Products	18.55	--	W	3.94	5.53	--	8.1
24	Lumber and Wood Products	16.24	2.44	6.39	3.62	5.81	W	4.4
25	Furniture and Fixtures	16.21	W	5.93	3.48	9.12	W	4.5
26	Paper and Allied Products	11.78	2.25	4.91	2.78	7.76	1.79	1.8
27	Printing and Publishing	17.17	W	6.02	3.64	7.33	--	3.7
28	Chemicals and Allied Products	8.96	2.64	4.21	2.44	W	1.64	3.2
29	Petroleum and Coal Products	11.75	2.74	4.22	3.12	7.24	1.76	3.6
30	Rubber and Misc. Plastics Products	14.84	2.07	4.85	3.32	9.91	2.09	3.1
31	Leather and Leather Products	15.67	W	6.83	3.10	7.55	--	3.5
32	Stone, Clay and Glass Products	13.29	W	6.21	2.84	7.29	1.55	3.7
33	Primary Metal Industries	11.19	2.74	5.05	2.60	5.97	1.81	2.5
34	Fabricated Metal Products	17.01	5.03	5.14	3.21	8.84	2.08	5.7
35	Industrial Machinery and Equipment	16.96	W	5.23	3.52	9.05	1.65	3.9
36	Electronic and Other Electric Equipment	14.02	W	5.24	3.27	5.98	2.08	3.6
37	Transportation Equipment	14.33	2.70	2.99	3.17	5.66	W	4.7
38	Instruments and Related Products	15.70	W	3.41	3.32	7.11	--	4.3
39	Misc. Manufacturing Industries	18.82	--	3.85	4.28	7.49	W	5.8
	Total	12.96	2.65	5.26	2.82	3.54	1.70	2.3
		South Census Region						
	RSE Column Factors:	0.7	0.9	1.5	0.8	1.9	0.7	
20	Food and Kindred Products	15.15	2.82	4.95	3.04	6.57	2.03	2.2
21	Tobacco Products	14.35	2.92	4.12	3.39	6.88	W	2.6
22	Textile Mill Products	12.87	3.03	4.30	3.40	5.75	1.87	4.0
23	Apparel and Other Textile Products	19.41	W	5.91	3.94	7.74	W	4.3
24	Lumber and Wood Products	16.50	W	5.54	3.11	6.75	W	3.0
25	Furniture and Fixtures	17.90	W	5.92	4.09	9.40	2.32	3.0
26	Paper and Allied Products	11.03	2.31	4.36	2.36	6.94	1.86	1.4
27	Printing and Publishing	17.56	2.96	4.55	3.98	7.97	--	4.0
28	Chemicals and Allied Products	9.98	2.33	4.55	2.09	4.79	1.60	1.6
29	Petroleum and Coal Products	11.34	2.54	4.53	2.02	7.11	W	2.9
30	Rubber and Misc. Plastics Products	13.77	2.61	4.26	3.25	7.97	2.22	2.5
31	Leather and Leather Products	21.37	W	W	4.93	7.87	--	3.7
32	Stone, Clay and Glass Products	12.56	2.23	5.25	2.72	6.76	1.71	2.6
33	Primary Metal Industries	9.26	2.27	4.54	2.73	6.58	1.71	2.1
34	Fabricated Metal Products	16.36	W	5.88	3.61	10.03	W	3.9
35	Industrial Machinery and Equipment	15.57	W	5.50	3.61	10.92	--	3.8
36	Electronic and Other Electric Equipment	14.09	2.69	5.67	3.51	6.18	W	4.3
37	Transportation Equipment	13.79	2.15	5.70	3.39	6.16	W	3.4
38	Instruments and Related Products	13.50	2.84	4.69	3.97	8.18	--	6.7
39	Misc. Manufacturing Industries	16.14	W	2.74	3.99	6.33	--	6.9
	Total	12.08	2.39	4.89	2.33	4.83	1.74	1.4

See footnotes at end of table.

Table A20. Average Prices of Selected Purchased Energy Sources by Census Region and Industry Group, 1994: Part 3 (Continued)

(Estimates in Dollars per Million Btu)

SIC Code[a]	Industry Group and Industry	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	RSE Row Factors
		West Census Region						
	RSE Column Factors:	0.8	0.9	1.7	0.9	1.4	0.7	
20	Food and Kindred Products	18.45	2.86	5.94	2.79	8.00	1.39	2.6
21	Tobacco Products	--	--	--	--	--	--	0.0
22	Textile Mill Products	20.73	--	--	3.65	10.11	--	7.3
23	Apparel and Other Textile Products	24.40	--	--	4.08	11.10	--	6.1
24	Lumber and Wood Products	13.99	2.79	6.94	2.90	7.07	--	3.7
25	Furniture and Fixtures	26.74	--	W	4.92	11.53	--	7.0
26	Paper and Allied Products	10.76	2.59	5.74	2.41	8.64	W	1.8
27	Printing and Publishing	23.68	--	7.76	4.19	9.96	--	4.1
28	Chemicals and Allied Products	10.07	3.76	7.32	1.98	10.13	1.97	4.4
29	Petroleum and Coal Products	14.93	--	5.08	2.05	10.09	W	3.8
30	Rubber and Misc. Plastics Products	21.09	W	6.82	4.55	10.46	W	5.7
31	Leather and Leather Products	24.51	--	--	W	W	--	15.2
32	Stone, Clay and Glass Products	15.48	3.09	5.42	2.76	8.59	1.66	3.4
33	Primary Metal Industries	7.96	W	4.14	2.50	7.86	2.15	1.7
34	Fabricated Metal Products	23.26	--	6.07	3.98	10.69	--	4.8
35	Industrial Machinery and Equipment	21.16	--	6.92	4.08	15.10	--	4.9
36	Electronic and Other Electric Equipment	17.88	--	5.99	4.44	13.37	--	5.6
37	Transportation Equipment	16.86	W	3.17	3.40	9.71	--	7.0
38	Instruments and Related Products	19.78	--	7.52	3.65	8.87	--	5.1
39	Misc. Manufacturing Industries	15.27	--	W	5.41	14.25	--	9.6
	Total	13.80	2.69	5.99	2.56	8.83	1.75	2.0

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
-- Estimation is not applicable.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A20. Average Prices of Selected Purchased Energy Sources by Industry Group and Selected Industries, 1994: Part 4

(Estimates in Dollars per Million Btu)

SIC Code[a]	Industry Group and Industry	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	RSE Row Factors
	RSE Column Factors:	0.8	1.0	1.2	0.8	1.6	0.8	
20	Food and Kindred Products	15.74	2.79	5.47	2.85	7.15	1.46	1.7
2011	*Meat Packing Plants*	13.71	2.30	5.66	2.40	5.28	W	3.5
2033	*Canned Fruits and Vegetables*	20.59	2.91	5.67	2.71	7.73	W	2.7
2037	*Frozen Fruits and Vegetables*	13.82	2.75	4.12	2.78	7.66	--	3.6
2046	*Wet Corn Milling*	10.26	W	5.59	2.31	5.33	1.32	2.7
2051	*Bread, Cake, and Related Products*	17.22	3.54	4.49	3.48	8.71	--	4.9
2061	*Cane Sugar, Except Refining*	19.25	3.09	6.06	2.41	11.94	W	1.8
2062	*Cane Sugar Refining*	20.60	3.06	4.56	2.50	10.18	--	4.8
2063	*Beet Sugar*	14.19	2.57	5.95	2.21	7.26	1.43	1.0
2075	*Soybean Oil Mills*	12.14	2.20	4.57	2.51	8.59	1.49	1.1
2082	*Malt Beverages*	15.46	W	W	2.67	8.73	1.62	2.4
21	Tobacco Products	14.55	2.92	4.17	3.37	6.87	W	2.7
22	Textile Mill Products	13.54	2.94	4.32	3.46	5.77	1.88	3.2
23	Apparel and Other Textile Products	21.50	3.14	5.15	4.01	8.01	W	5.4
24	Lumber and Wood Products	15.88	2.61	6.14	3.24	6.56	W	2.3
2421	*Sawmills and Planing Mills, General*	16.32	W	5.99	2.91	7.89	--	2.7
2436	*Softwood Veneer and Plywood*	12.56	W	5.10	2.36	5.83	--	2.6
2493	*Reconstituted Wood Products*	13.14	2.46	5.25	3.00	4.87	W	2.6
25	Furniture and Fixtures	18.69	3.48	5.57	3.88	9.42	2.27	2.9
2511	*Wood Furniture, Except Upholstered*	18.61	3.41	5.90	4.13	9.19	2.32	3.1
26	Paper and Allied Products	12.10	2.49	4.59	2.53	7.18	1.83	1.3
2611	*Pulp Mills*	11.22	2.46	4.71	2.32	5.69	1.69	2.7
2621	*Paper Mills*	10.66	2.51	4.34	2.44	5.94	1.78	1.3
2631	*Paperboard Mills*	11.35	2.43	4.65	2.38	8.24	1.98	1.1
27	Printing and Publishing	19.64	3.39	5.57	4.08	8.46	--	3.2
28	Chemicals and Allied Products	10.08	2.45	4.84	2.15	4.71	1.65	1.7
2812	*Alkalies and Chlorine*	7.68	W	4.20	2.12	W	W	1.1
2813	*Industrial Gases*	10.31	--	W	2.19	W	W	3.5
2816	*Inorganic Pigments*	10.53	2.26	4.85	2.76	7.66	W	1.9
2819	*Industrial Inorganic Chemicals, nec.*	6.44	2.91	5.14	2.29	6.87	1.93	2.4
2821	*Plastics Materials and Resins*	11.47	3.15	4.93	2.13	5.94	1.79	2.1
2822	*Synthetic Rubber*	11.33	2.90	4.94	2.00	7.03	W	2.8
2823	*Cellulosic Manmade Fibers*	11.04	--	3.96	W	W	W	0.0
2824	*Organic Fibers, Noncellulosic*	11.22	2.44	4.39	2.49	6.21	W	1.5
2861	*Gum and Wood Chemicals*	12.55	W	2.25	2.45	4.61	W	2.0
2865	*Cyclic Crudes and Intermediates*	11.08	2.38	3.82	2.30	W	W	2.8
2869	*Industrial Organic Chemicals, nec.*	11.36	2.71	4.99	2.07	4.15	1.39	2.0
2873	*Nitrogenous Fertilizers*	10.71	--	5.09	1.95	10.50	--	2.7
2874	*Phosphatic Fertilizers*	12.63	2.81	5.05	2.62	7.31	W	1.3
2895	*Carbon Black*	11.87	2.27	5.04	2.30	W	--	1.5
29	Petroleum and Coal Products	12.47	2.99	4.44	2.20	5.45	1.22	3.5
2911	*Petroleum Refining*	11.94	--	W	2.15	W	1.94	1.2
30	Rubber and Misc. Plastics Products	15.96	2.68	4.56	3.52	8.61	2.28	2.6
3011	*Tires and Inner Tubes*	12.20	2.45	3.33	2.58	6.47	2.20	2.5
308	*Miscellaneous Plastics Products, nec.*	16.31	2.87	4.96	3.86	8.93	2.63	3.4
31	Leather and Leather Products	22.02	2.23	4.67	3.57	8.36	--	5.0
32	Stone, Clay and Glass Products	14.04	2.81	5.49	2.83	7.40	1.66	1.9
3211	*Flat Glass*	13.91	W	5.26	2.66	7.32	--	2.9
3221	*Glass Containers*	14.28	2.98	4.49	2.73	7.07	--	1.6
3229	*Pressed and Blown Glass, nec.*	12.69	W	3.50	2.93	7.50	--	2.8
3241	*Cement, Hydraulic*	11.69	2.24	4.51	2.23	9.66	1.62	3.8
3274	*Lime*	13.71	W	W	2.23	6.32	1.72	2.7
3296	*Mineral Wool*	12.34	W	4.36	2.62	6.59	--	1.6
33	Primary Metal Industries	10.11	2.62	4.57	2.72	7.00	1.81	2.0
331	*Blast Furnace and Basic Steel Products*	11.19	2.61	5.15	2.60	8.93	1.80	2.3
3312	*Blast Furnaces and Steel Mills*	10.97	2.61	5.16	2.54	7.64	1.78	1.6
3313	*Electrometallurgical Products*	8.64	--	5.23	3.71	8.88	2.83	6.9
3321	*Gray and Ductile Iron Foundries*	13.10	W	5.71	3.09	6.39	W	2.7
3331	*Primary Copper*	11.15	W	3.64	2.17	4.54	W	0.0
3334	*Primary Aluminum*[d]	6.56	W	4.31	2.68	6.52	11.90	1.1
3339	*Primary Nonferrous Metals, nec.*	8.27	W	5.14	2.49	8.23	2.43	2.6
3353	*Aluminum Sheet, Plate, and Foil*	11.38	--	4.78	2.70	6.15	W	1.1

See footnotes at end of table.

Table A20. Average Prices of Selected Purchased Energy Sources by Industry Group and Selected Industries, 1994: Part 4 (Continued)

(Estimates in Dollars per Million Btu)

SIC Code[a]	Industry Group and Industry	Electricity	Residual Fuel Oil	Distillate Fuel Oil[b]	Natural Gas[c]	LPG	Coal	RSE Row Factors
	RSE Column Factors:	0.8	1.0	1.2	0.8	1.6	0.8	
34	Fabricated Metal Products	18.38	3.75	5.44	3.49	9.45	2.08	4.2
35	Industrial Machinery and Equipment	17.97	3.18	5.24	3.71	10.02	1.65	2.9
357	*Computer and Office Equipment*	17.28	W	4.30	2.94	9.67	--	4.5
36	Electronic and Other Electric Equipment	15.93	3.48	5.25	3.56	5.96	2.13	3.2
37	Transportation Equipment	15.21	2.68	4.12	3.31	6.28	1.87	3.8
3711	*Motor Vehicles and Car Bodies*	13.59	W	4.70	3.23	12.41	W	7.6
3714	*Motor Vehicle Parts and Accessories*	14.73	W	3.16	3.27	5.20	W	5.0
38	Instruments and Related Products	18.12	2.99	5.20	3.77	8.67	W	3.5
3841	*Surgical and Medical Instruments*	18.80	W	4.86	4.57	7.74	--	4.1
39	Misc. Manufacturing Industries	16.73	W	3.88	4.42	7.38	W	5.0
	Total	13.38	2.58	5.14	2.58	4.82	1.75	1.4

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Distillate Fuel Oil" includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.
[c] "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.
[d] The price estimates for coal for SIC 3334 include anthracite coal for the production of carbon anodes. Because of the high cost of transporting anthracite from the East Coast to the West and South, the prices of coal in those regions are extremely high.

NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
-- Estimation is not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A21. Average Prices of Purchased Electricity and Steam by Type of Supplier, Census Region, and Industry Group, 1994: Part 1

(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)		Steam (million Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
		Total United States				
	RSE Column Factors:	0.4	1.3	1.3	1.6	
20	Food and Kindred Products	0.054	0.075	3.80	2.61	3.5
21	Tobacco Products	0.050	--	W	--	7.9
22	Textile Mill Products	0.046	W	1.84	4.37	4.3
23	Apparel and Other Textile Products	0.073	0.055	3.38	W	11.1
24	Lumber and Wood Products	0.054	0.039	4.80	2.46	4.7
25	Furniture and Fixtures	0.064	W	W	W	3.8
26	Paper and Allied Products	0.041	0.053	2.94	3.48	2.7
27	Printing and Publishing	0.067	0.131	7.24	5.21	7.6
28	Chemicals and Allied Products	0.036	0.023	3.54	2.64	4.1
29	Petroleum and Coal Products	0.042	W	3.03	3.49	2.0
30	Rubber and Misc. Plastics Products	0.054	0.054	W	3.70	4.6
31	Leather and Leather Products	0.075	--	--	W	10.6
32	Stone, Clay and Glass Products	0.048	W	W	W	4.2
33	Primary Metal Industries	0.034	W	W	4.36	3.7
34	Fabricated Metal Products	0.063	W	W	7.33	9.0
35	Industrial Machinery and Equipment	0.061	W	W	W	4.2
36	Electronic and Other Electric Equipment	0.054	W	W	W	7.4
37	Transportation Equipment	0.052	0.060	W	5.61	4.5
38	Instruments and Related Products	0.062	0.092	W	W	4.7
39	Misc. Manufacturing Industries	0.057	W	W	W	10.6
	Total	0.046	0.029	3.37	3.08	2.8
		Northeast Census Region				
	RSE Column Factors:	0.5	1.0	1.1	1.6	
20	Food and Kindred Products	0.072	W	5.64	2.83	7.6
21	Tobacco Products	0.081	--	--	--	7.4
22	Textile Mill Products	0.078	W	2.27	4.54	7.1
23	Apparel and Other Textile Products	0.089	W	W	--	7.5
24	Lumber and Wood Products	0.072	W	--	W	12.9
25	Furniture and Fixtures	0.087	--	--	--	7.4
26	Paper and Allied Products	0.061	0.053	3.93	3.26	5.3
27	Printing and Publishing	0.087	W	10.55	--	8.9
28	Chemicals and Allied Products	0.050	0.060	3.88	5.33	4.0
29	Petroleum and Coal Products	0.050	--	W	W	2.6
30	Rubber and Misc. Plastics Products	0.074	W	2.99	W	5.7
31	Leather and Leather Products	0.103	--	--	--	7.4
32	Stone, Clay and Glass Products	0.061	W	--	W	3.8
33	Primary Metal Industries	0.044	W	W	W	4.9
34	Fabricated Metal Products	0.079	W	W	W	8.9
35	Industrial Machinery and Equipment	0.081	W	--	W	1.9
36	Electronic and Other Electric Equipment	0.066	W	W	W	9.2
37	Transportation Equipment	0.071	W	--	W	2.6
38	Instruments and Related Products	0.079	0.093	W	W	4.3
39	Misc. Manufacturing Industries	0.058	W	W	W	11.1
	Total	0.063	0.065	3.40	4.03	3.1

See footnotes at end of table.

Table A21. Average Prices of Purchased Electricity and Steam by Type of Supplier, Census Region, and Industry Group, 1994: Part 1 (Continued)

(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)		Steam (million Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
		Midwest Census Region				
	RSE Column Factors:	0.6	0.8	1.8	1.1	
20	Food and Kindred Products	0.046	W	4.05	--	2.7
21	*Tobacco Products*	W	--	--	--	0.0
22	Textile Mill Products	0.059	--	--	W	9.8
23	Apparel and Other Textile Products	0.063	--	W	--	8.1
24	Lumber and Wood Products	0.056	W	W	--	12.1
25	Furniture and Fixtures	0.055	--	W	W	4.9
26	Paper and Allied Products	0.040	W	2.68	W	1.6
27	Printing and Publishing	0.059	--	8.25	W	4.5
28	Chemicals and Allied Products	0.030	0.037	5.59	3.31	4.3
29	Petroleum and Coal Products	0.040	--	W	W	1.6
30	Rubber and Misc. Plastics Products	0.051	W	W	--	1.9
31	Leather and Leather Products	0.053	--	--	W	6.5
32	Stone, Clay and Glass Products	0.045	--	W	--	3.3
33	Primary Metal Industries	0.038	W	W	4.63	3.1
34	Fabricated Metal Products	0.058	W	W	W	7.1
35	Industrial Machinery and Equipment	0.058	W	W	--	3.3
36	Electronic and Other Electric Equipment	0.048	W	W	--	3.3
37	Transportation Equipment	0.049	W	W	W	4.8
38	Instruments and Related Products	0.054	W	--	--	4.9
39	Misc. Manufacturing Industries	0.064	--	--	--	8.1
	Total	0.044	0.045	4.06	3.84	3.1
		South Census Region				
	RSE Column Factors:	0.4	1.1	1.5	1.5	
20	Food and Kindred Products	0.052	W	2.61	W	3.4
21	Tobacco Products	0.049	--	W	--	7.3
22	Textile Mill Products	0.044	W	1.68	W	3.1
23	Apparel and Other Textile Products	0.066	W	W	W	5.9
24	Lumber and Wood Products	0.056	W	W	2.56	5.8
25	Furniture and Fixtures	0.061	W	W	--	4.9
26	Paper and Allied Products	0.038	W	2.58	W	1.0
27	Printing and Publishing	0.060	--	W	W	9.8
28	Chemicals and Allied Products	0.037	W	3.03	2.17	3.4
29	Petroleum and Coal Products	0.039	W	W	2.14	1.9
30	Rubber and Misc. Plastics Products	0.047	W	W	3.65	3.3
31	Leather and Leather Products	0.073	--	--	--	12.2
32	Stone, Clay and Glass Products	0.043	W	--	W	4.9
33	Primary Metal Industries	0.032	--	--	--	2.5
34	Fabricated Metal Products	0.056	--	--	--	4.9
35	Industrial Machinery and Equipment	0.053	--	--	--	4.9
36	Electronic and Other Electric Equipment	0.048	--	--	--	4.9
37	Transportation Equipment	0.047	0.048	--	--	8.7
38	Instruments and Related Products	0.046	--	--	--	31.8
39	Misc. Manufacturing Industries	0.055	--	--	--	14.7
	Total	0.042	0.021	3.06	2.30	2.8

See footnotes at end of table.

Table A21. Average Prices of Purchased Electricity and Steam by Type of Supplier, Census Region, and Industry Group, 1994: Part 1 (Continued)

(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)		Steam (million Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
		West Census Region				
	RSE Column Factors:	0.6	1.6	1.0	1.1	
20	Food and Kindred Products	0.063	0.070	W	2.41	3.5
21	Tobacco Products	--	--	--	--	0.0
22	Textile Mill Products	0.071	W	W	--	10.5
23	Apparel and Other Textile Products	0.083	W	W	--	3.9
24	Lumber and Wood Products	0.048	0.041	W	2.58	7.4
25	Furniture and Fixtures	0.091	W	--	--	8.8
26	Paper and Allied Products	0.037	W	W	3.70	6.1
27	Printing and Publishing	0.081	W	--	--	5.3
28	Chemicals and Allied Products	0.035	W	W	3.33	5.6
29	Petroleum and Coal Products	0.051	W	W	4.36	2.2
30	Rubber and Misc. Plastics Products	0.072	--	--	W	5.3
31	Leather and Leather Products	0.084	--	--	--	24.6
32	Stone, Clay and Glass Products	0.053	--	--	W	3.5
33	Primary Metal Industries	0.027	W	--	W	3.7
34	Fabricated Metal Products	0.079	--	--	--	5.3
35	Industrial Machinery and Equipment	0.072	--	W	--	5.3
36	Electronic and Other Electric Equipment	0.061	--	--	--	8.8
37	Transportation Equipment	0.058	W	W	W	8.7
38	Instruments and Related Products	0.067	W	W	--	3.6
39	Misc. Manufacturing Industries	0.052	--	--	--	24.6
	Total	0.047	0.043	2.36	3.69	3.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] See Glossary for definition of Electric Utility.
[c] Includes independent power producers, small power producers, cogenerators not located at the establishment site, and any other supplier(s), such as producers, brokers, and marketers.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
-- Estimation is not applicable.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A21. Average Prices of Purchased Electricity and Steam by Type of Supplier, Industry Group, and Selected Industries, 1994: Part 2

(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)		Steam (million Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	RSE Column Factors:	0.5	1.1	1.2	1.5	
20	Food and Kindred Products	0.054	0.075	3.80	2.61	3.5
2011	*Meat Packing Plants*	0.047	--	W	--	1.9
2033	*Canned Fruits and Vegetables*	0.070	--	W	W	4.2
2037	*Frozen Fruits and Vegetables*	0.047	W	W	2.74	3.3
2046	*Wet Corn Milling*	0.035	W	W	W	4.9
2051	*Bread, Cake, and Related Products*	0.058	W	W	--	6.2
2061	*Cane Sugar, Except Refining*	0.066	--	--	--	4.2
2062	*Cane Sugar Refining*	0.070	--	W	--	8.3
2063	*Beet Sugar*	0.048	--	--	--	2.1
2075	*Soybean Oil Mills*	0.041	--	3.00	W	2.1
2082	*Malt Beverages*	0.053	--	--	--	4.2
21	Tobacco Products	0.050	--	W	--	6.2
22	Textile Mill Products	0.046	W	1.84	4.37	4.3
23	Apparel and Other Textile Products	0.073	0.055	3.38	W	11.1
24	Lumber and Wood Products	0.054	0.039	4.80	2.46	4.7
2421	*Sawmills and Planing Mills, General*	0.056	0.038	W	2.46	6.3
2436	*Softwood Veneer and Plywood*	0.043	W	--	W	7.1
2493	*Reconstituted Wood Products*	0.045	--	W	W	6.2
25	Furniture and Fixtures	0.064	W	W	W	3.8
2511	*Wood Furniture, Except Upholstered*	0.064	--	W	--	6.2
26	Paper and Allied Products	0.041	0.053	2.94	3.48	2.7
2611	*Pulp Mills*	0.038	W	--	2.54	3.7
2621	*Paper Mills*	0.036	0.047	2.56	3.67	3.4
2631	*Paperboard Mills*	0.039	W	3.08	2.70	2.1
27	Printing and Publishing	0.067	0.131	7.24	5.21	7.6
28	Chemicals and Allied Products	0.036	0.023	3.54	2.64	4.1
2812	*Alkalies and Chlorine*	0.026	--	W	W	1.9
2813	*Industrial Gases*	0.035	--	--	W	7.9
2816	*Inorganic Pigments*	0.036	W	W	W	2.0
2819	*Industrial Inorganic Chemicals, nec.*	0.024	W	W	2.75	2.7
2821	*Plastics Materials and Resins*	0.039	0.040	4.02	3.65	3.1
2822	*Synthetic Rubber*	0.038	0.042	W	3.45	2.6
2823	*Cellulosic Manmade Fibers*	W	W	--	W	0.0
2824	*Organic Fibers, Noncellulosic*	0.038	W	--	W	1.2
2861	*Gum and Wood Chemicals*	0.043	W	--	W	1.2
2865	*Cyclic Crudes and Intermediates*	0.038	W	W	4.25	4.9
2869	*Industrial Organic Chemicals, nec.*	0.038	0.047	4.36	1.87	4.3
2873	*Nitrogenous Fertilizers*	0.038	W	--	3.27	6.0
2874	*Phosphatic Fertilizers*	0.043	--	--	W	2.1
2895	*Carbon Black*	0.040	--	--	--	2.1
29	Petroleum and Coal Products	0.042	W	3.03	3.49	2.0
2911	*Petroleum Refining*	0.040	W	2.98	3.49	2.0
30	Rubber and Misc. Plastics Products	0.054	0.054	W	3.70	4.6
3011	*Tires and Inner Tubes*	0.042	--	W	2.68	8.2
308	*Miscellaneous Plastics Products, nec.*	0.056	0.053	W	4.90	5.5
31	Leather and Leather Products	0.075	--	--	W	8.3
32	Stone, Clay and Glass Products	0.048	W	W	W	4.0
3211	*Flat Glass*	0.047	--	--	W	4.2
3221	*Glass Containers*	0.049	--	--	--	2.1
3229	*Pressed and Blown Glass, nec.*	0.043	W	--	W	2.3
3241	*Cement, Hydraulic*	0.040	--	--	--	4.2
3274	*Lime*	0.047	--	--	--	6.2
3296	*Mineral Wool*	0.042	--	--	--	4.2
33	Primary Metal Industries	0.034	W	W	4.36	3.7
331	*Blast Furnace and Basic Steel Products*	0.038	W	W	4.57	2.8
3312	*Blast Furnaces and Steel Mills*	0.037	W	W	W	1.6
3313	*Electrometallurgical Products*	0.029	W	--	W	11.5
3321	*Gray and Ductile Iron Foundries*	0.045	--	--	--	4.2
3331	*Primary Copper*	0.038	--	--	--	0.0
3334	*Primary Aluminum*	0.022	--	W	--	2.1
3339	*Primary Nonferrous Metals, nec.*	0.028	--	--	W	8.3
3353	*Aluminum Sheet, Plate, and Foil*	0.039	--	W	--	2.1

See footnotes at end of table.

Table A21. Average Prices of Purchased Electricity and Steam by Type of Supplier, Industry Group, and Selected Industries, 1994: Part 2 (Continued)
(Estimates in Dollars per Physical Units)

SIC Code[a]	Industry Group and Industry	Electricity (kWh)		Steam (million Btu)		RSE Row Factors
		Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	RSE Column Factors:	0.5	1.1	1.2	1.5	
34	Fabricated Metal Products	0.063	W	W	7.33	9.0
35	Industrial Machinery and Equipment	0.061	W	W	W	4.2
357	*Computer and Office Equipment*	0.059	--	W	--	8.3
36	Electronic and Other Electric Equipment	0.054	W	W	W	7.4
37	Transportation Equipment	0.052	0.060	W	5.61	4.5
3711	*Motor Vehicles and Car Bodies*	0.046	W	W	W	8.3
3714	*Motor Vehicle Parts and Accessories*	0.050	W	--	6.19	2.8
38	Instruments and Related Products	0.062	0.092	W	W	4.7
3841	*Surgical and Medical Instruments*	0.064	--	--	--	6.2
39	Misc. Manufacturing Industries	0.057	W	W	W	8.3
	Total	0.046	0.029	3.37	3.08	2.8

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] See Glossary for definition of Electric Utility.
[c] Includes independent power producers, small power producers, cogenerators not located at the establishment site, and any other supplier(s), such as producers, brokers, and marketers.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
-- Estimation is not applicable.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A22. Average Prices of Purchased Electricity and Steam by Type of Supplier, Census Region, and Economic Characteristics of the Establishment, 1994

(Estimates in Dollars per Physical Units)

Economic Characteristics[a]	Electricity (kWh)		Steam (million Btu)		RSE Row Factors
	Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	Total United States				
RSE Column Factors:	0.3	1.6	1.5	1.3	
Value of Shipments and Receipts (million dollars)					
Under 20	0.065	0.059	4.33	3.91	7.4
20-49	0.051	0.046	3.71	3.34	3.2
50-99	0.047	0.038	2.99	4.94	3.9
100-249	0.039	0.046	3.34	2.94	3.0
250-499	0.038	0.046	2.49	2.99	3.8
500 and Over	0.039	0.026	3.86	2.58	4.1
Total	0.046	0.029	3.37	3.08	2.8
Employment Size					
Under 50	0.061	0.050	3.83	3.16	6.7
50-99	0.058	0.048	4.35	3.49	6.1
100-249	0.051	0.045	3.04	3.13	3.5
250-499	0.046	0.036	2.76	2.30	4.6
500-999	0.039	0.051	3.47	2.91	2.8
1,000 and Over	0.040	0.025	3.98	3.52	3.6
Total	0.046	0.029	3.37	3.08	2.8
	Northeast Census Region				
RSE Column Factors:	0.5	1.1	1.7	1.1	
Value of Shipments and Receipts (million dollars)					
Under 20	0.080	0.075	4.39	5.69	11.6
20-49	0.067	W	4.31	3.26	5.6
50-99	0.063	0.074	3.86	6.17	4.8
100-249	0.051	0.066	3.74	3.02	3.7
250-499	0.056	0.045	W	4.07	11.2
500 and Over	0.055	0.072	W	3.28	3.5
Total	0.063	0.065	3.40	4.03	3.1
Employment Size					
Under 50	0.078	0.130	3.03	W	6.8
50-99	0.075	0.051	5.63	4.26	9.6
100-249	0.069	0.059	3.24	4.15	5.2
250-499	0.064	0.075	W	3.77	3.7
500-999	0.049	0.083	3.71	3.75	5.6
1,000 and Over	0.058	0.063	W	4.44	3.9
Total	0.063	0.065	3.40	4.03	3.1

See footnotes at end of table.

Table A22. Average Prices of Purchased Electricity and Steam by Type of Supplier, Census Region, and Economic Characteristics of the Establishment, 1994 (Continued)

(Estimates in Dollars per Physical Units)

Economic Characteristics[a]	Electricity (kWh)		Steam (million Btu)		RSE Row Factors
	Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	Midwest Census Region				
RSE Column Factors:	0.5	1.1	1.5	1.2	
Value of Shipments and Receipts (million dollars)					
Under 20	0.062	W	3.60	W	3.6
20-49	0.050	0.047	5.94	5.05	5.0
50-99	0.047	0.062	3.48	5.65	3.6
100-249	0.041	0.037	3.40	3.24	3.1
250-499	0.037	W	3.62	2.85	2.8
500 and Over	0.034	0.047	5.85	3.42	5.0
Total	0.044	0.045	4.06	3.84	3.1
Employment Size					
Under 50	0.059	W	3.81	2.53	4.4
50-99	0.056	0.034	3.43	5.09	4.5
100-249	0.050	0.049	3.78	5.26	4.2
250-499	0.045	0.050	3.91	4.19	5.4
500-999	0.042	W	3.07	2.79	2.9
1,000 and Over	0.035	0.047	5.59	3.57	4.6
Total	0.044	0.045	4.06	3.84	3.1
	South Census Region				
RSE Column Factors:	0.3	1.3	1.5	1.6	
Value of Shipments and Receipts (million dollars)					
Under 20	0.058	0.057	6.87	1.58	5.4
20-49	0.046	0.047	3.00	3.02	3.9
50-99	0.043	0.041	1.44	3.75	4.7
100-249	0.037	0.039	3.17	3.07	4.4
250-499	0.036	W	2.44	2.60	2.1
500 and Over	0.038	W	3.65	1.35	2.9
Total	0.042	0.021	3.06	2.30	2.8
Employment Size					
Under 50	0.054	0.059	7.09	W	5.1
50-99	0.050	0.041	W	2.50	2.8
100-249	0.045	0.039	3.15	2.65	4.1
250-499	0.042	0.044	2.36	1.45	5.0
500-999	0.038	W	4.05	2.14	2.8
1,000 and Over	0.038	W	W	2.90	2.3
Total	0.042	0.021	3.06	2.30	2.8

See footnotes at end of table.

Table A22. Average Prices of Purchased Electricity and Steam by Type of Supplier, Census Region, and Economic Characteristics of the Establishment, 1994 (Continued)

(Estimates in Dollars per Physical Units)

Economic Characteristics[a]	Electricity (kWh)		Steam (million Btu)		RSE Row Factors
	Utility Supplier[b]	Nonutility Supplier[c]	Utility Supplier[b]	Nonutility Supplier[c]	
	West Census Region				
RSE Column Factors:	0.5	1.5	1.7	0.8	
Value of Shipments and Receipts (million dollars)					
Under 20	0.068	0.060	W	3.58	6.0
20-49	0.054	0.035	4.03	2.64	7.4
50-99	0.047	0.019	W	3.30	5.8
100-249	0.033	0.072	W	2.38	3.5
250-499	0.037	W	W	W	2.6
500 and Over	0.052	W	0.00	4.42	2.6
Total	0.047	0.043	2.36	3.69	3.7
Employment Size					
Under 50	0.065	0.055	W	3.58	5.5
50-99	0.061	0.060	W	3.59	5.3
100-249	0.053	0.033	1.16	2.07	4.8
250-499	0.046	0.019	5.28	5.51	7.1
500-999	0.034	W	0.00	3.58	3.0
1,000 and Over	0.044	W	W	W	1.6
Total	0.047	0.043	2.36	3.69	3.7

[a] Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

[b] See Glossary for definition of Electric Utility.

[c] Includes independent power producers, small power producers, cogenerators not located at the establishment site, and any other supplier(s), such as producers, brokers, and marketers.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

-- Estimation is not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Bureau of the Census, Industry Division, data files for the "1994 Annual Survey of Manufactures."

Table A23. Selected Energy Operating Ratios for Total Energy Consumption for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1

SIC Code[a]	Industry Group	Consumption per Employee (million Btu)	Consumption per Dollar of Value Added (thousand Btu)	Consumption per Dollar of Value of Shipments (thousand Btu)	Major Byproducts[b] as a Percent of Consumption (percents)	Fuel Oil[c] as a Percent of Natural Gas (percents)	RSE Row Factors
		Total United States					
	RSE Column Factors:	0.7	0.8	0.7	2.0	1.3	
20	Food and Kindred Products	806.0	6.7	2.7	0.2	7.7	5.0
21	Tobacco Products	W	W	W	0.0	32.0	15.5
22	Textile Mill Products	516.9	9.5	3.9	0.0	W	8.5
23	Apparel and Other Textile Products	47.5	0.9	0.4	0.0	W	22.4
24	Lumber and Wood Products	675.6	10.1	4.3	0.2	W	11.9
25	Furniture and Fixtures	117.0	2.2	1.1	*	5.4	9.5
26	Paper and Allied Products	4,398.1	43.5	19.0	33.5	31.6	3.1
27	Printing and Publishing	85.1	1.0	0.7	0.0	W	7.3
28	Chemicals and Allied Products	4,087.1	19.1	10.3	8.2	3.9	4.7
29	Petroleum and Coal Products	28,783.6	113.1	22.3	41.1	W	3.0
30	Rubber and Misc. Plastics Products	317.7	4.2	2.2	*	12.0	5.7
31	Leather and Leather Products	W	W	W	0.0	36.8	19.2
32	Stone, Clay and Glass Products	2,033.4	22.7	13.2	0.1	7.0	8.3
33	Primary Metal Industries	3,952.2	39.8	16.1	W	6.9	4.8
34	Fabricated Metal Products	282.9	4.0	2.0	W	3.3	10.4
35	Industrial Machinery and Equipment	147.0	1.6	0.8	0.0	W	5.6
36	Electronic and Other Electric Equipment	165.4	1.7	0.9	W	4.9	11.3
37	Transportation Equipment	231.3	2.4	0.9	Q	11.5	5.8
38	Instruments and Related Products	134.9	1.1	0.8	0.1	W	13.7
39	Misc. Manufacturing Industries	140.0	2.0	1.1	0.0	11.0	20.8
	Total	1,002.3	10.6	5.0	W	9.7	2.4
		Northeast Census Region					
	RSE Column Factors:	0.8	0.9	0.8	1.5	1.1	
20	Food and Kindred Products	513.7	4.0	1.7	W	W	6.7
21	Tobacco Products	W	W	W	0.0	15.5	40.2
22	Textile Mill Products	394.7	7.4	3.8	0.0	W	12.5
23	Apparel and Other Textile Products	W	W	W	0.0	10.8	31.5
24	Lumber and Wood Products	451.8	5.2	3.0	0.0	W	32.9
25	Furniture and Fixtures	134.6	1.9	1.1	0.0	24.0	20.3
26	Paper and Allied Products	2,360.8	27.0	11.7	17.6	161.1	6.3
27	Printing and Publishing	74.8	0.8	0.6	0.0	W	9.8
28	Chemicals and Allied Products	781.0	3.9	2.4	W	43.3	10.4
29	Petroleum and Coal Products	15,809.5	44.8	13.5	36.3	54.6	5.5
30	Rubber and Misc. Plastics Products	253.9	3.8	1.9	W	W	10.4
31	Leather and Leather Products	W	W	W	0.0	68.4	23.0
32	Stone, Clay and Glass Products	1,618.0	18.7	11.1	0.0	W	10.0
33	Primary Metal Industries	2,175.7	24.2	9.9	26.3	7.5	12.3
34	Fabricated Metal Products	262.5	3.6	1.9	W	13.5	10.4
35	Industrial Machinery and Equipment	129.8	1.5	0.8	0.0	16.9	8.6
36	Electronic and Other Electric Equipment	237.1	2.5	1.5	W	W	25.7
37	Transportation Equipment	233.5	2.9	1.2	0.0	59.0	8.7
38	Instruments and Related Products	207.7	1.5	1.0	0.2	48.6	20.2
39	Misc. Manufacturing Industries	234.9	2.8	1.6	0.0	22.3	32.4
	Total	543.6	5.5	2.8	W	37.7	6.1

See footnotes at end of table.

Table A23. Selected Energy Operating Ratios for Total Energy Consumption for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

SIC Code[a]	Industry Group	Consumption per Employee (million Btu)	Consumption per Dollar of Value Added (thousand Btu)	Consumption per Dollar of Value of Shipments (thousand Btu)	Major Byproducts[b] as a Percent of Consumption (percents)	Fuel Oil[c] as a Percent of Natural Gas (percents)	RSE Row Factors
		Midwest Census Region					
	RSE Column Factors:	0.7	0.8	0.7	1.5	1.7	
20	Food and Kindred Products	1,043.9	7.8	2.9	W	W	8.4
21	Tobacco Products	W	W	W	0.0	*	0.0
22	Textile Mill Products	377.6	4.9	2.7	0.0	W	23.8
23	Apparel and Other Textile Products	53.8	1.2	0.6	0.0	W	16.7
24	Lumber and Wood Products	316.9	3.8	1.9	0.0	W	22.9
25	Furniture and Fixtures	150.7	2.3	1.2	*	0.7	12.4
26	Paper and Allied Products	2,034.3	20.6	9.3	W	5.2	7.2
27	Printing and Publishing	96.4	1.1	0.8	0.0	W	13.9
28	Chemicals and Allied Products	2,157.1	10.0	5.5	0.2	1.5	9.3
29	Petroleum and Coal Products	21,439.2	97.1	18.9	43.8	W	4.9
30	Rubber and Misc. Plastics Products	311.2	4.5	2.3	W	4.7	8.7
31	Leather and Leather Products	W	W	W	0.0	10.5	39.0
32	Stone, Clay and Glass Products	1,938.6	19.8	11.5	0.0	W	12.5
33	Primary Metal Industries	5,069.6	50.0	21.6	18.0	8.1	5.9
34	Fabricated Metal Products	312.6	4.4	2.2	0.0	W	14.7
35	Industrial Machinery and Equipment	172.2	2.0	1.0	0.0	4.6	8.3
36	Electronic and Other Electric Equipment	155.0	1.6	0.9	0.0	0.8	9.9
37	Transportation Equipment	296.0	2.8	0.9	Q	W	9.8
38	Instruments and Related Products	104.9	1.0	0.7	0.0	0.4	10.1
39	Misc. Manufacturing Industries	115.0	1.9	1.0	0.0	Q	24.2
	Total	824.3	8.6	4.0	12.2	6.0	3.9
		South Census Region					
	RSE Column Factors:	0.8	0.8	0.7	1.2	1.7	
20	Food and Kindred Products	666.2	6.3	2.6	0.2	W	9.5
21	Tobacco Products	616.2	0.9	0.6	0.0	34.5	14.4
22	Textile Mill Products	547.2	10.2	4.0	0.0	16.6	8.8
23	Apparel and Other Textile Products	48.3	1.3	0.7	0.0	1.8	12.1
24	Lumber and Wood Products	842.0	14.7	5.9	0.3	W	12.1
25	Furniture and Fixtures	125.1	2.8	1.3	0.0	8.9	9.8
26	Paper and Allied Products	7,399.4	65.0	29.1	41.6	29.6	3.5
27	Printing and Publishing	92.1	1.2	0.8	0.0	2.6	11.5
28	Chemicals and Allied Products	7,602.2	32.9	16.2	W	2.8	5.0
29	Petroleum and Coal Products	34,692.9	160.1	25.0	40.0	4.2	4.3
30	Rubber and Misc. Plastics Products	422.4	4.7	2.5	*	16.7	4.5
31	Leather and Leather Products	49.0	1.7	0.8	0.0	Q	24.6
32	Stone, Clay and Glass Products	2,280.4	26.2	15.6	0.2	W	12.4
33	Primary Metal Industries	3,853.4	37.4	13.9	W	W	7.2
34	Fabricated Metal Products	250.6	3.5	1.7	0.0	W	7.7
35	Industrial Machinery and Equipment	136.5	1.5	0.7	0.0	W	9.7
36	Electronic and Other Electric Equipment	153.6	1.6	0.8	0.0	3.3	10.4
37	Transportation Equipment	210.3	2.7	0.9	0.0	W	7.5
38	Instruments and Related Products	129.1	1.2	0.8	0.0	7.5	19.2
39	Misc. Manufacturing Industries	127.8	2.0	1.1	0.0	W	25.6
	Total	1,471.7	16.3	7.4	21.1	7.1	2.7

See footnotes at end of table.

Table A23. Selected Energy Operating Ratios for Total Energy Consumption for Heat, Power, and Electricity Generation by Census Region and Industry Group, 1994: Part 1 (Continued)

SIC Code[a]	Industry Group	Consumption per Employee (million Btu)	Consumption per Dollar of Value Added (thousand Btu)	Consumption per Dollar of Value of Shipments (thousand Btu)	Major Byproducts[b] as a Percent of Consumption (percents)	Fuel Oil[c] as a Percent of Natural Gas (percents)	RSE Row Factors
		West Census Region					
	RSE Column Factors:	0.8	0.8	0.8	1.4	1.5	
20	Food and Kindred Products	862.8	7.1	2.9	W	7.1	11.9
21	Tobacco Products	0.0	0.0	0.0	0.0	0.0	0.0
22	Textile Mill Products	330.3	5.7	2.2	0.0	0.0	25.1
23	Apparel and Other Textile Products	W	W	W	0.0	0.0	26.6
24	Lumber and Wood Products	808.9	13.4	4.7	0.0	W	12.7
25	Furniture and Fixtures	40.9	0.8	0.4	0.0	Q	20.0
26	Paper and Allied Products	4,644.2	49.8	18.6	W	10.3	6.3
27	Printing and Publishing	63.0	0.9	0.6	0.0	W	8.1
28	Chemicals and Allied Products	2,199.2	12.9	7.7	2.6	0.8	14.7
29	Petroleum and Coal Products	30,901.7	98.7	23.9	43.3	16.5	4.5
30	Rubber and Misc. Plastics Products	180.9	2.4	1.3	0.0	Q	13.5
31	Leather and Leather Products	W	W	W	0.0	0.0	40.2
32	Stone, Clay and Glass Products	2,087.7	24.8	13.5	0.0	13.7	12.5
33	Primary Metal Industries	3,431.4	33.6	12.7	W	4.4	9.2
34	Fabricated Metal Products	249.8	3.8	1.8	0.0	1.4	31.2
35	Industrial Machinery and Equipment	101.0	1.0	0.5	0.0	2.0	12.6
36	Electronic and Other Electric Equipment	119.2	1.0	0.7	W	W	13.6
37	Transportation Equipment	144.1	1.3	0.7	0.0	W	11.3
38	Instruments and Related Products	78.1	0.7	0.5	Q	W	10.4
39	Misc. Manufacturing Industries	71.3	1.1	0.6	0.0	*	27.8
	Total	861.3	8.9	4.4	W	9.5	4.1

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Major Byproduct" fuels include coke oven and blast furnace gas (produced primarily in the blast furnace industry, SIC 3312); still gas (produced primarily in refineries, SIC 2911); and pulping liquor (produced primarily in pulp and paper mills, SIC 2611 and 2621).

[c] "Fuel Oil" includes distillate and residual fuel oils.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Operating ratios were calculated using the input energy estimates reported in Table A4.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Bureau of the Census, Industry Division, data files for the "1994 Annual Survey of Manufactures."

Table A23. Selected Energy Operating Ratios for Total Energy Consumption for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 2

SIC Code[a]	Industry Group and Industry	Consumption per Employee (million Btu)	Consumption per Dollar of Value Added (thousand Btu)	Consumption per Dollar of Value of Shipments (thousand Btu)	Major Byproducts[b] as a Percent of Consumption (percents)	Fuel Oil[c] as a Percent of Natural Gas (percents)	RSE Row Factors
	RSE Column Factors:	0.7	0.7	0.7	1.7	1.7	
20	Food and Kindred Products	806.0	6.7	2.7	0.2	7.7	5.0
2011	*Meat Packing Plants*	439.4	6.5	1.1	W	4.0	9.3
2033	*Canned Fruits and Vegetables*	900.8	8.3	3.6	0.0	5.2	8.4
2037	*Frozen Fruits and Vegetables*	861.8	9.8	4.4	0.0	5.9	14.5
2046	*Wet Corn Milling*	19,025.4	51.4	22.1	W	1.6	13.3
2051	*Bread, Cake, and Related Products*	251.8	2.8	1.7	0.0	3.3	10.3
2061	*Cane Sugar, Except Refining*	15,679.9	159.1	68.5	0.0	W	15.8
2062	*Cane Sugar Refining*	4,813.0	35.2	8.3	0.0	15.8	12.5
2063	*Beet Sugar*	8,501.4	75.5	26.7	W	W	1.9
2075	*Soybean Oil Mills*	7,688.0	30.1	4.5	W	W	1.0
2082	*Malt Beverages*	1,694.1	5.2	3.0	W	W	4.8
21	Tobacco Products	W	W	W	0.0	32.0	14.9
22	Textile Mill Products	516.9	9.5	3.9	0.0	W	8.2
23	Apparel and Other Textile Products	47.5	0.9	0.4	0.0	W	21.6
24	Lumber and Wood Products	675.6	10.1	4.3	0.2	W	11.9
2421	*Sawmills and Planing Mills, General*	1,568.6	18.7	7.5	0.4	W	15.0
2436	*Softwood Veneer and Plywood*	2,695.8	32.5	12.5	0.0	54.3	9.3
2493	*Reconstituted Wood Products*	2,903.2	25.2	13.0	0.0	11.1	12.9
25	Furniture and Fixtures	117.0	2.2	1.1	*	5.4	9.5
2511	*Wood Furniture, Except Upholstered*	165.4	3.9	2.0	0.0	29.5	14.1
26	Paper and Allied Products	4,398.1	43.5	19.0	33.5	31.6	3.1
2611	*Pulp Mills*	20,454.5	135.4	58.1	60.4	W	4.1
2621	*Paper Mills*	10,536.6	85.7	37.1	29.4	36.3	2.8
2631	*Paperboard Mills*	17,714.3	107.0	50.5	37.7	W	1.3
27	Printing and Publishing	85.1	1.0	0.7	0.0	W	7.1
28	Chemicals and Allied Products	4,087.1	19.1	10.3	8.2	3.9	4.7
2812	*Alkalies and Chlorine*	22,351.3	135.5	62.3	0.0	W	5.4
2813	*Industrial Gases*	16,197.9	42.7	29.8	0.0	W	11.3
2816	*Inorganic Pigments*	5,075.9	21.8	12.4	0.0	5.6	4.5
2819	*Industrial Inorganic Chemicals, nec.*	5,382.8	34.1	20.2	W	3.7	10.9
2821	*Plastics Materials and Resins*	5,933.7	25.0	10.1	4.3	W	6.8
2822	*Synthetic Rubber*	5,882.9	28.1	12.4	W	W	13.9
2823	*Cellulosic Manmade Fibers*	2,575.4	31.1	15.2	0.0	W	0.0
2824	*Organic Fibers, Noncellulosic*	2,817.6	17.4	9.2	W	W	5.6
2861	*Gum and Wood Chemicals*	3,835.2	24.2	12.6	0.0	W	6.0
2865	*Cyclic Crudes and Intermediates*	6,733.3	27.6	11.2	1.5	W	18.4
2869	*Industrial Organic Chemicals, nec.*	15,048.3	58.1	24.6	17.5	0.8	6.4
2873	*Nitrogenous Fertilizers*	42,844.7	169.5	75.5	0.4	0.1	10.7
2874	*Phosphatic Fertilizers*	2,058.6	13.0	4.0	0.0	24.3	3.7
2895	*Carbon Black*	18,653.6	65.6	40.1	W	W	10.2
29	Petroleum and Coal Products	28,783.6	113.1	22.3	41.1	W	3.0
2911	*Petroleum Refining*	44,196.9	137.8	24.5	42.4	9.9	2.6
30	Rubber and Misc. Plastics Products	317.7	4.2	2.2	*	12.0	5.7
3011	*Tires and Inner Tubes*	739.6	6.5	3.6	0.0	22.5	4.1
308	*Miscellaneous Plastics Products, nec.*	294.4	3.9	2.0	W	7.3	7.2
31	Leather and Leather Products	W	W	W	0.0	36.8	18.5
32	Stone, Clay and Glass Products	2,033.4	22.7	13.2	0.1	7.0	8.3
3211	*Flat Glass*	5,202.5	36.4	23.2	0.0	3.6	7.7
3221	*Glass Containers*	2,758.9	27.7	17.1	0.0	3.9	2.4
3229	*Pressed and Blown Glass, nec.*	1,994.1	20.5	13.7	0.0	W	6.3
3241	*Cement, Hydraulic*	21,065.3	124.4	72.7	0.0	23.0	5.3
3274	*Lime*	16,736.5	185.6	97.5	0.0	16.7	7.2
3296	*Mineral Wool*	3,507.5	24.7	15.6	0.0	W	7.1
33	Primary Metal Industries	3,952.2	39.8	16.1	W	6.9	4.8
331	*Blast Furnace and Basic Steel Products*	8,028.8	67.4	27.0	23.7	W	6.3
3312	*Blast Furnaces and Steel Mills*	11,640.7	87.5	35.3	24.8	W	3.7
3313	*Electrometallurgical Products*	4,977.2	49.0	13.8	0.0	4.8	29.1
3321	*Gray and Ductile Iron Foundries*	1,241.5	17.6	9.9	0.0	2.0	5.4
3331	*Primary Copper*	5,419.7	21.4	5.3	0.0	W	0.0
3334	*Primary Aluminum*	11,195.5	113.2	36.4	0.0	W	1.9
3339	*Primary Nonferrous Metals, nec.*	4,561.8	46.4	14.2	0.0	3.3	11.7
3353	*Aluminum Sheet, Plate, and Foil*	3,280.7	27.5	6.9	0.0	W	2.4

See footnotes at end of table.

Table A23. Selected Energy Operating Ratios for Total Energy Consumption for Heat, Power, and Electricity Generation by Industry Group and Selected Industries, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	Consumption per Employee (million Btu)	Consumption per Dollar of Value Added (thousand Btu)	Consumption per Dollar of Value of Shipments (thousand Btu)	Major Byproducts[b] as a Percent of Consumption (percents)	Fuel Oil[c] as a Percent of Natural Gas (percents)	RSE Row Factors
	RSE Column Factors:	0.7	0.7	0.7	1.7	1.7	
34	Fabricated Metal Products	282.9	4.0	2.0	W	3.3	10.4
35	Industrial Machinery and Equipment	147.0	1.6	0.8	0.0	W	5.4
357	*Computer and Office Equipment*	91.5	0.7	0.3	0.0	W	16.8
36	Electronic and Other Electric Equipment	165.4	1.7	0.9	W	4.9	10.9
37	Transportation Equipment	231.3	2.4	0.9	Q	11.5	5.6
3711	*Motor Vehicles and Car Bodies*	455.0	3.4	0.7	0.0	4.5	11.8
3714	*Motor Vehicle Parts and Accessories*	284.0	3.1	1.3	Q	W	8.7
38	Instruments and Related Products	134.9	1.1	0.8	0.1	W	13.7
3841	*Surgical and Medical Instruments*	78.2	0.7	0.5	0.0	8.7	13.7
39	Misc. Manufacturing Industries	140.0	2.0	1.1	0.0	11.0	20.0
	Total	1,002.3	10.6	5.0	W	9.7	2.4

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Major Byproduct" fuels include coke oven and blast furnace gas (produced primarily in the blast furnace industry, SIC 3312); still gas (produced primarily in refineries, SIC 2911); and pulping liquor (produced primarily in pulp and paper mills, SIC 2611 and 2621).
[c] "Fuel Oil" includes distillate and residual fuel oils.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Operating ratios were calculated using the input energy estimates reported in Table A4.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey," and Bureau of the Census, Industry Division, data files for the "1994 Annual Survey of Manufactures."

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
20-39	**ALL INDUSTRY GROUPS**							
	Participation in One or More of the Following Types of Programs	3,911	12,605	8,928	10,957	1,565	2,031	2.7
	Energy Audits	7,333	9,182	2,219	7,947	299	1,459	2.8
	Electricity Load Control	8,957	7,558	1,968	6,571	38	371	3.3
	Special Rate Schedule [b]	9,556	6,959	6,959	--	--	--	1.4
	Standby Generation Program	13,697	2,818	1,298	2,032	27	73	5.7
	Equipment Rebates	14,010	2,506	2,174	400	56	200	4.5
	Power Factor Correction or Improvement	10,458	6,057	1,752	5,135	44	255	5.0
	U.S. EPA's Energy Star Program	16,369	146	--	--	146	--	2.3
	U.S. EPA's Green Lights Program	15,369	1,146	--	--	1,146	--	2.2
	U.S. DOE's Motor Challenge Program	16,369	146	--	--	146	--	2.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	10,458	6,057	144	5,755	78	303	4.7
	Direct/Indirect Process Heating	10,962	5,553	320	5,289	12	169	5.8
	Direct Process Cooling/Refrigeration	13,289	3,227	130	3,152	16	91	4.9
	Direct Machine Drive [d]	10,016	6,499	912	5,880	29	357	4.1
	Facility Heating, Ventilation, and Air Conditioning	13,176	3,339	238	3,070	24	179	5.0
	Facility Lighting	11,046	5,469	1,007	4,735	59	322	4.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	14,083	2,432	111	2,334	20	222	6.5
	Other [f]	16,227	288	84	236	20	33	7.3
20	**FOOD and KINDRED PRODUCTS**							
	Participation in One or More of the Following Types of Programs	383	801	531	669	61	119	4.8
	Energy Audits	632	551	160	442	21	65	6.1
	Electricity Load Control	838	345	113	277	1	26	7.3
	Special Rate Schedule [b]	867	316	316	--	--	--	2.2
	Standby Generation Program	1,048	135	76	58	0	12	10.1
	Equipment Rebates	863	321	289	49	7	6	8.9
	Power Factor Correction or Improvement	816	367	117	278	0	18	7.0
	U.S. EPA's Energy Star Program	1,183	*	--	--	*	--	1.6
	U.S. EPA's Green Lights Program	1,158	26	--	--	26	--	2.2
	U.S. DOE's Motor Challenge Program	1,176	7	--	--	7	--	3.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	826	357	26	329	3	18	8.3
	Direct/Indirect Process Heating	831	352	14	339	*	11	9.7
	Direct Process Cooling/Refrigeration	913	271	16	258	*	14	9.4
	Direct Machine Drive [d]	696	487	81	423	*	18	8.1
	Facility Heating, Ventilation, and Air Conditioning	933	250	12	234	1	11	10.6
	Facility Lighting	799	384	79	321	2	17	7.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	1,106	78	2	75	0	9	11.4
	Other [f]	1,180	4	2	3	*	0	14.5

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2011	**Meat Packing Plants**							
	Participation in One or More of the Following Types of Programs	10	43	22	42	W	8	11.2
	Energy Audits	21	32	3	29	0	4	12.8
	Electricity Load Control	37	17	4	13	0	W	17.4
	Special Rate Schedule [b]	42	11	11	--	--	--	3.2
	Standby Generation Program	49	5	2	3	0	0	21.1
	Equipment Rebates	37	17	15	2	0	0	12.4
	Power Factor Correction or Improvement	34	20	4	17	0	2	13.9
	U.S. EPA's Energy Star Program	53	0	--	--	0	--	1.9
	U.S. EPA's Green Lights Program	53	0	--	--	0	--	1.9
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	4.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	41	12	*	11	0	2	16.5
	Direct/Indirect Process Heating	39	14	0	13	0	1	13.3
	Direct Process Cooling/Refrigeration	39	15	1	13	0	2	16.8
	Direct Machine Drive [d]	34	19	3	17	0	W	17.4
	Facility Heating, Ventilation, and Air Conditioning	45	9	*	8	0	W	22.7
	Facility Lighting	41	13	2	11	0	0	18.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	48	5	0	5	0	0	14.7
	Other [f]	52	1	0	1	0	0	22.9
2033	**Canned Fruits and Vegetables**							
	Participation in One or More of the Following Types of Programs	11	40	26	24	2	4	12.5
	Energy Audits	28	23	7	16	0	2	14.2
	Electricity Load Control	38	13	5	10	0	1	16.5
	Special Rate Schedule [b]	37	14	14	--	--	--	3.4
	Standby Generation Program	46	5	1	4	0	0	20.5
	Equipment Rebates	28	23	21	4	*	*	12.8
	Power Factor Correction or Improvement	38	13	6	7	0	*	14.1
	U.S. EPA's Energy Star Program	51	0	--	--	0	--	1.9
	U.S. EPA's Green Lights Program	50	1	--	--	1	--	4.7
	U.S. DOE's Motor Challenge Program	50	1	--	--	1	--	4.5
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	39	12	3	10	0	0	15.7
	Direct/Indirect Process Heating	45	6	Q	5	0	0	15.6
	Direct Process Cooling/Refrigeration	43	8	0	8	0	0	12.8
	Direct Machine Drive [d]	28	23	8	17	0	0	11.3
	Facility Heating, Ventilation, and Air Conditioning	43	8	0	8	0	0	13.5
	Facility Lighting	36	15	4	12	0	*	13.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	49	2	0	2	0	0	17.1
	Other [f]	51	0	0	0	0	0	9.6

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2037	**Frozen Fruits and Vegetables**							
	Participation in One or More of the Following Types of Programs	10	32	24	26	3	6	12.2
	Energy Audits	26	16	9	6	2	4	15.0
	Electricity Load Control	32	10	4	7	*	*	15.4
	Special Rate Schedule [b]	34	8	8	--	--	--	3.5
	Standby Generation Program	38	4	0	4	0	0	18.6
	Equipment Rebates	26	16	14	2	1	1	17.9
	Power Factor Correction or Improvement	26	16	7	14	0	1	15.7
	U.S. EPA's Energy Star Program	42	0	--	--	0	--	2.0
	U.S. EPA's Green Lights Program	42	0	--	--	0	--	2.0
	U.S. DOE's Motor Challenge Program	41	1	--	--	1	--	4.5
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	31	11	*	10	0	0	17.5
	Direct/Indirect Process Heating	35	7	0	7	0	0	15.3
	Direct Process Cooling/Refrigeration	29	13	3	10	*	*	15.1
	Direct Machine Drive [d]	29	12	2	11	*	0	15.7
	Facility Heating, Ventilation, and Air Conditioning	38	3	*	3	*	0	20.4
	Facility Lighting	28	14	4	8	0	1	18.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	39	2	*	2	0	0	22.0
	Other [f]	42	0	0	0	0	0	10.9
2046	**Wet Corn Milling**							
	Participation in One or More of the Following Types of Programs	18	154	124	136	3	21	18.7
	Energy Audits	41	132	19	122	3	18	20.4
	Electricity Load Control	141	32	8	24	0	0	25.3
	Special Rate Schedule [b]	79	94	94	--	--	--	4.0
	Standby Generation Program	129	43	40	0	0	3	27.4
	Equipment Rebates	69	104	104	0	0	0	17.8
	Power Factor Correction or Improvement	103	70	38	32	0	0	24.0
	U.S. EPA's Energy Star Program	173	0	--	--	0	--	2.2
	U.S. EPA's Green Lights Program	173	0	--	--	0	--	2.2
	U.S. DOE's Motor Challenge Program	173	0	--	--	0	--	2.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	60	113	1	113	0	0	22.6
	Direct/Indirect Process Heating	48	124	0	124	0	0	18.2
	Direct Process Cooling/Refrigeration	79	94	0	94	0	0	19.6
	Direct Machine Drive [d]	52	121	20	100	0	0	21.7
	Facility Heating, Ventilation, and Air Conditioning	100	72	0	72	0	0	21.8
	Facility Lighting	68	105	8	100	0	0	21.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	152	20	0	20	0	0	25.0
	Other [f]	173	0	0	0	0	0	16.4

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2051	**Bread, Cake, and Related Products**							
	Participation in One or More of the Following Types of Programs	19	18	11	15	1	2	18.3
	Energy Audits	27	10	4	6	*	1	22.5
	Electricity Load Control	29	9	2	7	0	*	20.5
	Special Rate Schedule [b]	32	6	6	--	--	--	4.2
	Standby Generation Program	35	2	1	Q	0	0	28.7
	Equipment Rebates	31	6	5	2	0	0	23.2
	Power Factor Correction or Improvement	30	7	1	6	0	1	27.2
	U.S. EPA's Energy Star Program	37	0	--	--	0	--	2.1
	U.S. EPA's Green Lights Program	37	0	--	--	0	--	2.1
	U.S. DOE's Motor Challenge Program	37	*	--	--	*	--	5.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	36	1	1	1	0	*	32.1
	Direct/Indirect Process Heating	35	2	*	2	0	0	30.4
	Direct Process Cooling/Refrigeration	34	3	*	3	0	*	30.8
	Direct Machine Drive [d]	31	7	*	6	0	0	20.8
	Facility Heating, Ventilation, and Air Conditioning	33	4	*	4	0	0	23.8
	Facility Lighting	30	7	2	5	0	*	22.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	36	Q	0	Q	0	*	12.3
	Other [f]	37	*	0	*	0	0	32.3
2061	**Cane Sugar, Except Refining**							
	Participation in One or More of the Following Types of Programs	58	47	18	47	3	4	15.9
	Energy Audits	77	28	3	28	W	*	19.0
	Electricity Load Control	77	28	W	28	0	0	18.1
	Special Rate Schedule [b]	88	17	17	--	--	--	4.1
	Standby Generation Program	90	15	6	12	0	0	18.5
	Equipment Rebates	105	0	0	0	0	0	17.8
	Power Factor Correction or Improvement	75	30	0	30	0	*	17.7
	U.S. EPA's Energy Star Program	105	0	--	--	0	--	2.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	4.8
	U.S. DOE's Motor Challenge Program	105	0	--	--	0	--	2.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	76	29	*	28	0	0	17.5
	Direct/Indirect Process Heating	88	17	0	17	0	0	15.1
	Direct Process Cooling/Refrigeration	105	0	0	0	0	0	17.8
	Direct Machine Drive [d]	78	27	0	27	0	0	17.2
	Facility Heating, Ventilation, and Air Conditioning	93	12	0	12	0	0	24.2
	Facility Lighting	93	12	0	12	W	W	18.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	101	4	0	4	0	W	24.1
	Other [f]	105	0	0	0	0	0	17.8

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2062	**Cane Sugar Refining**							
	Participation in One or More of the Following Types of Programs	6	17	13	15	0	6	30.2
	Energy Audits	18	5	2	5	0	0	38.4
	Electricity Load Control	18	6	2	6	0	0	37.3
	Special Rate Schedule [b]	13	10	10	--	--	--	5.1
	Standby Generation Program	21	2	0	2	0	0	42.5
	Equipment Rebates	21	3	2	3	0	0	41.0
	Power Factor Correction or Improvement	17	7	2	7	0	0	34.8
	U.S. EPA's Energy Star Program	23	0	--	--	0	--	2.4
	U.S. EPA's Green Lights Program	23	0	--	--	0	--	2.4
	U.S. DOE's Motor Challenge Program	23	0	--	--	0	--	2.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	11	12	7	6	0	0	33.1
	Direct/Indirect Process Heating	21	3	0	3	0	0	38.4
	Direct Process Cooling/Refrigeration	23	0	0	0	0	0	23.2
	Direct Machine Drive [d]	18	6	0	6	0	0	33.8
	Facility Heating, Ventilation, and Air Conditioning	23	0	0	0	0	0	23.2
	Facility Lighting	10	13	0	10	0	3	34.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	20	4	0	4	0	4	44.7
	Other [f]	23	0	0	0	0	0	23.2
2063	**Beet Sugar**							
	Participation in One or More of the Following Types of Programs	19	45	24	42	0	W	4.9
	Energy Audits	43	21	W	20	0	0	5.3
	Electricity Load Control	W	W	7	W	0	W	5.8
	Special Rate Schedule [b]	W	W	W	--	--	--	2.2
	Standby Generation Program	52	11	11	0	0	0	4.6
	Equipment Rebates	54	9	9	0	0	0	5.2
	Power Factor Correction or Improvement	37	27	W	24	0	0	5.4
	U.S. EPA's Energy Star Program	64	0	--	--	0	--	1.4
	U.S. EPA's Green Lights Program	64	0	--	--	0	--	1.4
	U.S. DOE's Motor Challenge Program	64	0	--	--	0	--	1.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	39	25	0	25	0	0	4.4
	Direct/Indirect Process Heating	36	28	0	28	0	0	3.6
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	6.1
	Direct Machine Drive [d]	25	39	W	36	0	0	4.7
	Facility Heating, Ventilation, and Air Conditioning	49	15	0	15	0	0	4.4
	Facility Lighting	44	20	0	20	0	0	4.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	W	W	0	W	0	0	5.0
	Other [f]	64	0	0	0	0	0	2.7

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2075	**Soybean Oil Mills**							
	Participation in One or More of the Following Types of Programs	11	45	25	38	W	7	1.0
	Energy Audits	34	22	5	17	W	5	1.0
	Electricity Load Control	31	24	11	19	0	W	1.1
	Special Rate Schedule [b]	40	16	16	--	--	--	1.3
	Standby Generation Program	45	10	W	9	0	0	1.2
	Equipment Rebates	46	9	8	W	0	W	1.1
	Power Factor Correction or Improvement	33	22	5	20	0	3	1.1
	U.S. EPA's Energy Star Program	56	0	--	--	0	--	1.2
	U.S. EPA's Green Lights Program	56	0	--	--	0	--	1.2
	U.S. DOE's Motor Challenge Program	56	0	--	--	0	--	1.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	37	18	W	18	0	W	1.1
	Direct/Indirect Process Heating	34	21	0	20	0	W	1.2
	Direct Process Cooling/Refrigeration	48	7	0	6	0	W	1.2
	Direct Machine Drive [d]	32	24	W	22	0	4	1.1
	Facility Heating, Ventilation, and Air Conditioning	47	9	*	8	0	W	1.1
	Facility Lighting	42	14	W	11	0	W	1.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	49	6	0	W	0	W	1.2
	Other [f]	56	0	0	0	0	0	1.4
2082	**Malt Beverages**							
	Participation in One or More of the Following Types of Programs	Q	49	33	49	14	W	3.3
	Energy Audits	8	43	11	41	W	W	7.5
	Electricity Load Control	21	30	8	28	0	W	7.0
	Special Rate Schedule [b]	24	28	28	--	--	--	2.6
	Standby Generation Program	W	W	W	W	0	W	3.1
	Equipment Rebates	32	20	20	W	W	0	6.4
	Power Factor Correction or Improvement	32	19	4	16	0	W	8.9
	U.S. EPA's Energy Star Program	51	0	--	--	0	--	1.9
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	1.4
	U.S. DOE's Motor Challenge Program	51	0	--	--	0	--	1.9
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	29	22	W	21	W	W	4.8
	Direct/Indirect Process Heating	16	35	0	35	0	W	4.7
	Direct Process Cooling/Refrigeration	12	39	W	38	0	W	3.9
	Direct Machine Drive [d]	6	45	5	45	0	W	8.6
	Facility Heating, Ventilation, and Air Conditioning	21	30	W	30	0	0	4.8
	Facility Lighting	23	28	W	25	0	0	8.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	W	W	0	W	0	0	2.2
	Other [f]	51	0	0	0	0	0	8.2

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
21	**TOBACCO PRODUCTS**							
	Participation in One or More of the Following Types of Programs	W	18	5	17	1	*	24.1
	Energy Audits	W	17	1	16	1	*	25.4
	Electricity Load Control	12	W	*	7	*	*	28.1
	Special Rate Schedule [b]	14	W	5	--	--	--	4.5
	Standby Generation Program	W	0	0	0	0	0	19.1
	Equipment Rebates	19	W	1	1	0	*	29.8
	Power Factor Correction or Improvement	14	W	3	2	*	*	29.3
	U.S. EPA's Energy Star Program	W	0	--	--	0	--	2.3
	U.S. EPA's Green Lights Program	W	0	--	--	0	--	2.3
	U.S. DOE's Motor Challenge Program	W	0	--	--	0	--	2.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	12	W	0	7	*	*	30.2
	Direct/Indirect Process Heating	11	W	0	8	*	0	26.4
	Direct Process Cooling/Refrigeration	W	12	*	11	*	0	26.9
	Direct Machine Drive [d]	W	13	0	12	*	0	23.4
	Facility Heating, Ventilation, and Air Conditioning	11	W	0	9	*	*	28.5
	Facility Lighting	W	13	0	13	*	*	26.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	17	W	0	3	0	0	33.8
	Other [f]	W	0	0	0	0	0	19.1
22	**TEXTILE MILL PRODUCTS**							
	Participation in One or More of the Following Types of Programs	66	244	191	207	18	31	10.5
	Energy Audits	133	177	65	137	11	24	11.6
	Electricity Load Control	210	100	53	76	*	7	15.7
	Special Rate Schedule [b]	172	138	138	--	--	--	2.9
	Standby Generation Program	298	12	5	5	0	Q	22.6
	Equipment Rebates	258	52	47	6	*	Q	14.1
	Power Factor Correction or Improvement	237	73	43	45	0	Q	13.4
	U.S. EPA's Energy Star Program	W	W	--	--	*	--	4.5
	U.S. EPA's Green Lights Program	W	W	--	--	4	--	4.0
	U.S. DOE's Motor Challenge Program	W	W	--	--	5	--	4.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	229	81	8	74	*	6	21.7
	Direct/Indirect Process Heating	238	72	7	65	Q	Q	18.6
	Direct Process Cooling/Refrigeration	266	44	7	37	0	3	18.7
	Direct Machine Drive [d]	206	104	11	96	0	5	16.6
	Facility Heating, Ventilation, and Air Conditioning	258	52	9	44	*	8	18.2
	Facility Lighting	194	116	19	101	*	8	15.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	296	14	*	14	0	*	24.5
	Other [f]	309	1	*	0	1	*	19.9

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
23	**APPAREL and OTHER TEXTILE PRODUCTS**							
	Participation in One or More of the Following Types of Programs	35	21	11	17	*	2	17.5
	Energy Audits	40	15	5	11	*	2	20.8
	Electricity Load Control	48	8	2	6	0	Q	27.5
	Special Rate Schedule [b]	49	7	7	--	--	--	4.0
	Standby Generation Program	54	2	Q	Q	0	*	30.3
	Equipment Rebates	51	Q	2	Q	0	*	17.9
	Power Factor Correction or Improvement	50	6	2	Q	0	*	24.3
	U.S. EPA's Energy Star Program	56	0	--	--	0	--	2.0
	U.S. EPA's Green Lights Program	56	0	--	--	0	--	2.0
	U.S. DOE's Motor Challenge Program	56	0	--	--	0	--	2.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	52	4	Q	3	0	*	27.1
	Direct/Indirect Process Heating	W	W	1	1	0	*	27.6
	Direct Process Cooling/Refrigeration	52	Q	*	Q	0	*	9.6
	Direct Machine Drive [d]	48	8	*	7	0	Q	29.8
	Facility Heating, Ventilation, and Air Conditioning	49	7	1	6	0	Q	29.5
	Facility Lighting	45	11	2	9	0	Q	23.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	55	1	*	*	0	*	30.9
	Other [f]	W	W	*	*	*	0	10.9
24	**LUMBER and WOOD PRODUCTS**							
	Participation in One or More of the Following Types of Programs	244	191	115	148	7	18	9.5
	Energy Audits	328	107	38	78	2	11	12.5
	Electricity Load Control	349	86	39	66	0	4	12.1
	Special Rate Schedule [b]	377	58	58	--	--	--	2.6
	Standby Generation Program	420	14	4	10	*	W	15.9
	Equipment Rebates	400	35	32	Q	Q	*	16.2
	Power Factor Correction or Improvement	342	93	40	75	0	4	13.9
	U.S. EPA's Energy Star Program	435	0	--	--	0	--	1.8
	U.S. EPA's Green Lights Program	434	Q	--	--	Q	--	1.8
	U.S. DOE's Motor Challenge Program	432	3	--	--	3	--	3.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	384	51	6	47	*	1	15.4
	Direct/Indirect Process Heating	406	29	4	25	0	*	16.8
	Direct Process Cooling/Refrigeration	429	5	*	5	0	0	19.3
	Direct Machine Drive [d]	352	83	21	74	0	1	16.1
	Facility Heating, Ventilation, and Air Conditioning	403	32	1	26	*	6	20.3
	Facility Lighting	386	49	16	39	Q	1	11.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	426	9	3	6	0	*	16.7
	Other [f]	434	1	Q	1	0	0	25.4

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2421	**Sawmills and Planing Mills, General**							
	Participation in One or More of the Following Types of Programs	127	72	41	48	1	8	16.3
	Energy Audits	166	32	14	17	0	6	19.7
	Electricity Load Control	165	33	16	23	0	*	17.9
	Special Rate Schedule [b]	178	21	21	--	--	--	3.3
	Standby Generation Program	194	5	2	3	0	0	24.7
	Equipment Rebates	189	9	8	*	*	0	14.7
	Power Factor Correction or Improvement	158	40	17	31	0	Q	16.6
	U.S. EPA's Energy Star Program	198	0	--	--	0	--	1.9
	U.S. EPA's Green Lights Program	198	*	--	--	*	--	1.9
	U.S. DOE's Motor Challenge Program	W	W	--	--	*	--	1.9
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	180	18	2	17	0	Q	17.7
	Direct/Indirect Process Heating	192	6	1	6	0	*	20.3
	Direct Process Cooling/Refrigeration	197	1	0	1	0	0	22.9
	Direct Machine Drive [d]	177	21	7	16	0	*	19.6
	Facility Heating, Ventilation, and Air Conditioning	188	10	Q	6	0	5	22.0
	Facility Lighting	185	13	4	10	*	*	15.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	196	2	*	2	0	0	25.7
	Other [f]	198	0	0	0	0	0	9.6
2436	**Softwood Veneer and Plywood**							
	Participation in One or More of the Following Types of Programs	33	40	24	36	2	5	20.7
	Energy Audits	41	32	4	30	1	1	23.2
	Electricity Load Control	58	15	4	14	0	W	19.3
	Special Rate Schedule [b]	67	7	7	--	--	--	4.2
	Standby Generation Program	72	Q	0	Q	0	0	15.0
	Equipment Rebates	64	Q	Q	Q	0	0	13.7
	Power Factor Correction or Improvement	48	25	Q	23	0	3	26.5
	U.S. EPA's Energy Star Program	73	0	--	--	0	--	2.2
	U.S. EPA's Green Lights Program	73	0	--	--	0	--	2.2
	U.S. DOE's Motor Challenge Program	73	0	--	--	0	--	2.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	61	12	0	12	*	0	15.6
	Direct/Indirect Process Heating	68	5	0	5	0	0	23.7
	Direct Process Cooling/Refrigeration	73	0	0	0	0	0	15.0
	Direct Machine Drive [d]	53	21	Q	21	0	0	24.8
	Facility Heating, Ventilation, and Air Conditioning	62	11	0	11	0	0	33.1
	Facility Lighting	66	8	*	7	0	0	22.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	72	Q	0	Q	0	0	36.6
	Other [f]	73	0	0	0	0	0	15.0

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2493	**Reconstituted Wood Products**							
	Participation in One or More of the Following Types of Programs	25	46	31	38	W	2	14.1
	Energy Audits	49	22	8	19	0	Q	15.0
	Electricity Load Control	45	26	13	22	0	0	14.3
	Special Rate Schedule [b]	48	23	23	--	--	--	3.4
	Standby Generation Program	65	6	W	4	0	W	17.9
	Equipment Rebates	64	7	7	0	0	0	13.8
	Power Factor Correction or Improvement	56	15	7	13	0	0	12.4
	U.S. EPA's Energy Star Program	71	0	--	--	0	--	2.1
	U.S. EPA's Green Lights Program	71	0	--	--	0	--	2.1
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	3.9
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	61	10	Q	10	0	0	13.7
	Direct/Indirect Process Heating	61	10	0	10	0	0	12.1
	Direct Process Cooling/Refrigeration	69	2	0	2	0	0	17.9
	Direct Machine Drive [d]	44	27	Q	24	0	*	17.4
	Facility Heating, Ventilation, and Air Conditioning	64	7	1	6	0	*	20.0
	Facility Lighting	54	17	7	14	0	*	14.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	66	5	W	2	0	*	20.5
	Other [f]	71	0	0	0	0	0	12.3
25	**FURNITURE and FIXTURES**							
	Participation in One or More of the Following Types of Programs	32	33	22	27	9	5	10.8
	Energy Audits	43	22	13	16	2	4	13.5
	Electricity Load Control	49	16	9	10	*	1	16.4
	Special Rate Schedule [b]	55	9	9	--	--	--	3.3
	Standby Generation Program	62	3	0	3	0	0	16.3
	Equipment Rebates	54	11	10	1	*	1	19.8
	Power Factor Correction or Improvement	50	14	5	11	*	Q	18.9
	U.S. EPA's Energy Star Program	65	*	--	--	*	--	1.8
	U.S. EPA's Green Lights Program	58	7	--	--	7	--	3.6
	U.S. DOE's Motor Challenge Program	64	1	--	--	1	--	4.5
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	57	8	*	7	*	Q	18.3
	Direct/Indirect Process Heating	58	7	*	7	*	Q	15.7
	Direct Process Cooling/Refrigeration	62	3	*	3	0	Q	19.1
	Direct Machine Drive [d]	52	13	5	9	0	1	18.2
	Facility Heating, Ventilation, and Air Conditioning	54	11	Q	10	*	Q	11.5
	Facility Lighting	47	18	8	12	*	2	17.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	62	3	0	2	*	*	19.4
	Other [f]	64	1	0	1	0	0	24.6

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2511	**Wood Furniture, Except Upholstered**							
	Participation in One or More of the Following Types of Programs	12	12	8	11	3	2	16.5
	Energy Audits	15	10	5	7	Q	2	20.5
	Electricity Load Control	18	6	3	5	*	Q	20.0
	Special Rate Schedule [b]	21	3	3	--	--	--	3.9
	Standby Generation Program	22	2	0	2	0	0	19.6
	Equipment Rebates	22	2	2	0	0	0	21.1
	Power Factor Correction or Improvement	18	6	3	5	*	Q	20.1
	U.S. EPA's Energy Star Program	24	*	--	--	*	--	2.0
	U.S. EPA's Green Lights Program	22	2	--	--	2	--	4.4
	U.S. DOE's Motor Challenge Program	24	*	--	--	*	--	2.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	19	5	*	5	0	Q	23.5
	Direct/Indirect Process Heating	20	4	0	4	*	Q	19.6
	Direct Process Cooling/Refrigeration	22	2	0	2	0	Q	25.4
	Direct Machine Drive [d]	18	6	1	6	0	Q	21.7
	Facility Heating, Ventilation, and Air Conditioning	18	6	*	5	0	Q	17.5
	Facility Lighting	18	6	1	6	0	1	25.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	23	1	0	1	0	0	20.7
	Other [f]	23	1	0	1	0	0	30.7
26	**PAPER and ALLIED PRODUCTS**							
	Participation in One or More of the Following Types of Programs	450	2,184	1,635	1,952	289	419	4.0
	Energy Audits	1,031	1,603	485	1,390	90	305	4.7
	Electricity Load Control	1,240	1,395	442	1,252	8	104	5.8
	Special Rate Schedule [b]	1,434	1,201	1,201	--	--	--	1.7
	Standby Generation Program	2,229	405	221	278	W	W	7.7
	Equipment Rebates	2,058	576	462	98	31	71	6.1
	Power Factor Correction or Improvement	1,679	955	284	831	W	30	6.7
	U.S. EPA's Energy Star Program	2,587	47	--	--	47	--	3.0
	U.S. EPA's Green Lights Program	2,530	105	--	--	105	--	2.4
	U.S. DOE's Motor Challenge Program	2,580	54	--	--	54	--	2.6
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	1,561	1,073	35	985	31	98	6.8
	Direct/Indirect Process Heating	1,790	844	76	768	W	40	7.9
	Direct Process Cooling/Refrigeration	2,356	278	26	263	W	19	9.3
	Direct Machine Drive [d]	1,427	1,207	215	1,036	18	138	5.2
	Facility Heating, Ventilation, and Air Conditioning	2,092	543	26	519	W	22	8.3
	Facility Lighting	1,720	915	243	763	W	83	5.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	2,251	383	50	366	*	11	8.4
	Other [f]	2,612	22	12	W	W	1	15.9

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2611	**Pulp Mills**							
	Participation in One or More of the Following Types of Programs	51	199	144	192	21	34	14.7
	Energy Audits	119	132	57	109	15	32	17.1
	Electricity Load Control	95	156	80	119	0	2	18.4
	Special Rate Schedule [b]	137	114	114	--	--	--	3.6
	Standby Generation Program	200	51	51	15	0	0	21.4
	Equipment Rebates	224	27	12	0	0	15	19.1
	Power Factor Correction or Improvement	177	74	60	47	0	0	18.2
	U.S. EPA's Energy Star Program	251	0	--	--	0	--	2.1
	U.S. EPA's Green Lights Program	W	W	--	--	1	--	4.6
	U.S. DOE's Motor Challenge Program	231	20	--	--	20	--	4.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	119	132	3	130	0	9	20.6
	Direct/Indirect Process Heating	186	64	3	62	0	9	22.7
	Direct Process Cooling/Refrigeration	239	12	3	9	0	9	27.1
	Direct Machine Drive [d]	160	91	7	88	0	9	20.1
	Facility Heating, Ventilation, and Air Conditioning	222	29	3	26	0	9	24.4
	Facility Lighting	203	47	3	45	0	9	23.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	222	28	0	28	0	0	25.4
	Other [f]	251	0	0	0	0	0	12.3
2621	**Paper Mills**							
	Participation in One or More of the Following Types of Programs	195	1,097	890	988	179	216	5.9
	Energy Audits	442	851	292	728	48	136	6.6
	Electricity Load Control	591	701	247	634	W	64	8.4
	Special Rate Schedule [b]	658	634	634	--	--	--	2.2
	Standby Generation Program	1,076	216	102	191	W	W	11.4
	Equipment Rebates	973	319	285	33	18	53	8.9
	Power Factor Correction or Improvement	754	538	113	478	W	W	9.6
	U.S. EPA's Energy Star Program	1,246	46	--	--	46	--	3.4
	U.S. EPA's Green Lights Program	1,246	47	--	--	47	--	3.4
	U.S. DOE's Motor Challenge Program	1,262	30	--	--	30	--	2.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	776	516	25	464	31	37	9.5
	Direct/Indirect Process Heating	814	479	34	444	W	30	10.8
	Direct Process Cooling/Refrigeration	1,168	124	21	112	W	W	13.4
	Direct Machine Drive [d]	660	632	153	515	11	115	7.7
	Facility Heating, Ventilation, and Air Conditioning	1,048	244	16	228	W	W	11.9
	Facility Lighting	760	533	173	450	W	71	8.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	1,115	178	26	163	0	W	13.4
	Other [f]	1,273	20	W	W	W	0	17.4

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2631	**Paperboard Mills**							
	Participation in One or More of the Following Types of Programs	140	790	532	701	79	157	4.3
	Energy Audits	373	557	106	512	25	130	4.5
	Electricity Load Control	429	501	98	474	W	37	5.3
	Special Rate Schedule [b]	515	415	415	--	--	--	1.7
	Standby Generation Program	795	134	67	69	0	W	7.5
	Equipment Rebates	740	190	126	62	W	W	7.0
	Power Factor Correction or Improvement	618	312	94	286	0	W	6.0
	U.S. EPA's Energy Star Program	930	0	--	--	0	--	1.4
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.5
	U.S. DOE's Motor Challenge Program	929	*	--	--	*	--	2.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	524	406	7	373	0	51	6.2
	Direct/Indirect Process Heating	642	288	W	251	0	0	5.8
	Direct Process Cooling/Refrigeration	795	135	*	134	0	0	7.2
	Direct Machine Drive [d]	489	441	39	400	W	W	5.8
	Facility Heating, Ventilation, and Air Conditioning	675	255	5	251	0	W	6.3
	Facility Lighting	641	289	44	240	W	0	5.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	758	172	W	171	0	W	7.3
	Other [f]	930	*	0	0	0	*	8.1
27	**PRINTING and PUBLISHING**							
	Participation in One or More of the Following Types of Programs	60	52	40	37	7	11	6.1
	Energy Audits	75	37	21	21	1	8	8.2
	Electricity Load Control	86	27	12	19	*	2	10.1
	Special Rate Schedule [b]	95	17	17	--	--	--	2.4
	Standby Generation Program	105	7	3	4	0	1	15.5
	Equipment Rebates	91	21	20	3	*	2	11.2
	Power Factor Correction or Improvement	88	24	11	18	0	2	9.6
	U.S. EPA's Energy Star Program	111	2	--	--	2	--	3.7
	U.S. EPA's Green Lights Program	107	5	--	--	5	--	3.2
	U.S. DOE's Motor Challenge Program	112	1	--	--	1	--	4.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	106	7	*	6	0	1	16.5
	Direct/Indirect Process Heating	107	5	1	4	*	*	18.3
	Direct Process Cooling/Refrigeration	101	11	3	10	*	1	13.0
	Direct Machine Drive [d]	92	20	7	16	*	2	11.4
	Facility Heating, Ventilation, and Air Conditioning	96	17	4	14	*	1	11.1
	Facility Lighting	86	26	13	16	*	2	8.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	108	5	1	4	*	1	16.3
	Other [f]	110	2	1	1	*	0	20.4

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
28	**CHEMICALS and ALLIED PRODUCTS**							
	Participation in One or More of the Following Types of Programs	720	2,553	1,668	2,221	246	202	5.8
	Energy Audits	1,647	1,626	211	1,521	72	161	5.9
	Electricity Load Control	1,831	1,442	186	1,372	8	19	7.1
	Special Rate Schedule [b]	1,839	1,434	1,434	--	--	--	2.0
	Standby Generation Program	2,792	481	273	291	3	6	9.5
	Equipment Rebates	3,054	219	195	27	6	10	8.5
	Power Factor Correction or Improvement	1,965	1,308	370	1,022	3	23	8.3
	U.S. EPA's Energy Star Program	3,234	39	--	--	39	--	2.5
	U.S. EPA's Green Lights Program	3,097	176	--	--	176	--	3.8
	U.S. DOE's Motor Challenge Program	3,254	20	--	--	20	--	2.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	2,047	1,226	36	1,208	32	27	8.5
	Direct/Indirect Process Heating	2,275	998	15	984	0	22	10.1
	Direct Process Cooling/Refrigeration	2,441	832	31	828	W	16	8.5
	Direct Machine Drive [d]	2,147	1,126	67	1,099	2	28	8.2
	Facility Heating, Ventilation, and Air Conditioning	2,598	675	9	660	W	11	10.5
	Facility Lighting	2,357	917	67	850	17	20	7.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	2,828	445	8	432	9	8	10.8
	Other [f]	3,192	81	24	74	3	0	10.7
2812	**Alkalies and Chlorine**							
	Participation in One or More of the Following Types of Programs	9	120	107	95	10	W	7.6
	Energy Audits	61	68	W	62	10	W	9.6
	Electricity Load Control	47	83	W	83	0	0	8.5
	Special Rate Schedule [b]	28	101	101	--	--	--	2.5
	Standby Generation Program	W	W	W	W	0	0	11.5
	Equipment Rebates	W	W	W	W	W	0	10.7
	Power Factor Correction or Improvement	48	82	W	72	0	0	9.2
	U.S. EPA's Energy Star Program	129	0	--	--	0	--	1.8
	U.S. EPA's Green Lights Program	129	0	--	--	0	--	1.8
	U.S. DOE's Motor Challenge Program	129	0	--	--	0	--	1.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	106	24	0	23	0	W	10.0
	Direct/Indirect Process Heating	W	W	0	W	0	0	10.9
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	10.2
	Direct Machine Drive [d]	W	W	0	W	0	0	10.2
	Facility Heating, Ventilation, and Air Conditioning	W	W	0	W	0	0	10.2
	Facility Lighting	W	W	0	W	W	0	10.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	129	0	0	0	0	0	6.8
	Other [f]	W	W	W	W	0	0	12.6

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2813	**Industrial Gases**							
	Participation in One or More of the Following Types of Programs	26	73	66	67	0	1	15.6
	Energy Audits	69	30	8	23	0	1	22.3
	Electricity Load Control	36	63	20	54	0	1	18.1
	Special Rate Schedule [b]	34	65	65	--	--	--	3.3
	Standby Generation Program	87	12	0	12	0	0	23.4
	Equipment Rebates	70	29	21	7	0	0	19.5
	Power Factor Correction or Improvement	51	48	13	36	0	0	14.4
	U.S. EPA's Energy Star Program	99	0	--	--	0	--	2.0
	U.S. EPA's Green Lights Program	99	0	--	--	0	--	2.0
	U.S. DOE's Motor Challenge Program	99	0	--	--	0	--	2.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	88	10	0	10	0	0	24.4
	Direct/Indirect Process Heating	91	7	0	7	0	0	29.3
	Direct Process Cooling/Refrigeration	91	8	0	8	0	0	27.9
	Direct Machine Drive [d]	86	13	0	13	0	0	21.3
	Facility Heating, Ventilation, and Air Conditioning	91	7	0	7	0	0	29.3
	Facility Lighting	91	8	*	8	0	0	31.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	88	11	0	11	0	0	23.9
	Other [f]	99	0	0	0	0	0	10.9
2816	**Inorganic Pigments**							
	Participation in One or More of the Following Types of Programs	3	37	16	34	W	*	11.1
	Energy Audits	7	33	8	30	0	*	12.2
	Electricity Load Control	11	29	W	25	0	0	12.3
	Special Rate Schedule [b]	29	11	11	--	--	--	3.3
	Standby Generation Program	37	3	0	3	0	*	15.3
	Equipment Rebates	33	7	6	W	0	*	13.8
	Power Factor Correction or Improvement	18	22	W	21	0	*	13.7
	U.S. EPA's Energy Star Program	40	0	--	--	0	--	1.9
	U.S. EPA's Green Lights Program	40	0	--	--	0	--	1.9
	U.S. DOE's Motor Challenge Program	40	0	--	--	0	--	1.9
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	36	3	*	3	0	0	14.4
	Direct/Indirect Process Heating	22	18	0	18	0	0	12.7
	Direct Process Cooling/Refrigeration	40	0	0	0	0	0	9.6
	Direct Machine Drive [d]	31	9	W	8	0	0	13.8
	Facility Heating, Ventilation, and Air Conditioning	38	2	0	2	0	0	12.8
	Facility Lighting	15	25	W	21	0	0	12.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	40	0	0	0	0	0	9.6
	Other [f]	W	W	0	0	W	0	12.3

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2819	**Industrial Inorganic Chemicals, nec.**							
	Participation in One or More of the Following Types of Programs	178	166	106	148	13	27	10.5
	Energy Audits	238	107	10	94	W	26	14.2
	Electricity Load Control	236	108	21	102	0	W	13.2
	Special Rate Schedule [b]	261	83	83	--	--	--	3.0
	Standby Generation Program	290	55	31	42	0	W	17.0
	Equipment Rebates	325	19	18	2	0	*	17.8
	Power Factor Correction or Improvement	267	77	35	67	0	*	13.1
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	4.1
	U.S. EPA's Green Lights Program	339	5	--	--	5	--	4.2
	U.S. DOE's Motor Challenge Program	344	*	--	--	*	--	4.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	273	71	Q	63	W	W	14.2
	Direct/Indirect Process Heating	253	91	W	78	0	W	16.3
	Direct Process Cooling/Refrigeration	302	42	W	40	0	W	18.6
	Direct Machine Drive [d]	242	102	9	99	0	2	13.6
	Facility Heating, Ventilation, and Air Conditioning	325	19	2	12	W	W	16.0
	Facility Lighting	289	55	2	46	W	2	14.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	323	22	W	13	W	W	18.3
	Other [f]	344	*	0	*	0	0	18.2
2821	**Plastics Materials and Resins**							
	Participation in One or More of the Following Types of Programs	138	181	135	142	20	11	9.1
	Energy Audits	239	80	44	63	W	6	10.2
	Electricity Load Control	241	78	11	68	0	W	12.3
	Special Rate Schedule [b]	217	102	102	--	--	--	2.8
	Standby Generation Program	294	25	3	21	0	0	14.1
	Equipment Rebates	282	37	36	*	0	0	11.0
	Power Factor Correction or Improvement	259	60	9	50	0	W	10.9
	U.S. EPA's Energy Star Program	319	0	--	--	0	--	1.8
	U.S. EPA's Green Lights Program	313	6	--	--	6	--	3.8
	U.S. DOE's Motor Challenge Program	319	0	--	--	0	--	1.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	267	52	2	49	0	W	15.3
	Direct/Indirect Process Heating	281	38	*	37	0	0	14.6
	Direct Process Cooling/Refrigeration	289	30	1	29	0	0	16.2
	Direct Machine Drive [d]	226	93	W	76	0	W	13.1
	Facility Heating, Ventilation, and Air Conditioning	294	25	*	24	0	W	14.8
	Facility Lighting	260	59	21	43	0	0	10.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	291	28	0	28	0	0	15.7
	Other [f]	W	W	W	W	0	0	17.1

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2822	**Synthetic Rubber**							
	Participation in One or More of the Following Types of Programs	16	47	18	42	4	4	22.8
	Energy Audits	31	32	4	30	0	3	29.5
	Electricity Load Control	38	25	1	24	*	0	27.4
	Special Rate Schedule [b]	52	11	11	--	--	--	4.4
	Standby Generation Program	63	0	0	0	0	0	19.1
	Equipment Rebates	63	*	*	0	0	0	30.8
	Power Factor Correction or Improvement	35	28	4	28	0	0	28.7
	U.S. EPA's Energy Star Program	63	0	--	--	0	--	2.3
	U.S. EPA's Green Lights Program	59	3	--	--	3	--	5.5
	U.S. DOE's Motor Challenge Program	63	0	--	--	0	--	2.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	41	22	0	21	*	1	30.1
	Direct/Indirect Process Heating	43	20	*	20	0	2	35.5
	Direct Process Cooling/Refrigeration	42	21	0	21	0	0	28.8
	Direct Machine Drive [d]	53	10	0	10	0	0	26.8
	Facility Heating, Ventilation, and Air Conditioning	55	8	0	8	0	0	27.5
	Facility Lighting	43	20	*	20	0	*	35.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	63	*	0	*	0	0	31.8
	Other [f]	63	0	0	0	0	0	19.1
2823	**Cellulosic Manmade Fibers**							
	Participation in One or More of the Following Types of Programs	W	W	W	24	W	0	1.0
	Energy Audits	W	W	*	24	W	0	1.0
	Electricity Load Control	W	W	*	W	0	0	1.2
	Special Rate Schedule [b]	W	W	W	--	--	--	1.0
	Standby Generation Program	W	W	0	W	0	0	1.2
	Equipment Rebates	28	0	0	0	0	0	1.4
	Power Factor Correction or Improvement	W	W	W	W	0	0	1.2
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	1.0
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	1.0
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	1.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	W	W	0	W	0	0	1.2
	Direct/Indirect Process Heating	W	W	0	W	0	0	1.2
	Direct Process Cooling/Refrigeration	W	W	0	16	0	0	1.2
	Direct Machine Drive [d]	W	W	0	W	0	0	1.2
	Facility Heating, Ventilation, and Air Conditioning	W	W	0	W	0	0	1.2
	Facility Lighting	W	W	0	W	0	0	1.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	W	W	0	W	0	0	1.2
	Other [f]	28	0	0	0	0	0	1.4

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2824	**Organic Fibers, Noncellulosic**							
	Participation in One or More of the Following Types of Programs	1	113	96	111	W	W	7.1
	Energy Audits	33	80	29	80	W	W	8.9
	Electricity Load Control	34	80	8	78	0	*	9.8
	Special Rate Schedule [b]	30	84	84	--	--	--	2.5
	Standby Generation Program	79	34	34	9	0	0	10.0
	Equipment Rebates	98	15	10	W	0	W	12.0
	Power Factor Correction or Improvement	63	51	W	47	0	0	8.1
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	3.4
	U.S. EPA's Green Lights Program	103	10	--	--	10	--	3.0
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	3.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	86	28	W	28	0	0	9.9
	Direct/Indirect Process Heating	83	31	0	31	0	0	7.3
	Direct Process Cooling/Refrigeration	54	59	*	59	W	W	10.4
	Direct Machine Drive [d]	44	69	*	69	0	*	10.2
	Facility Heating, Ventilation, and Air Conditioning	73	41	0	41	0	0	7.3
	Facility Lighting	60	54	W	53	0	*	9.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	79	35	0	35	0	0	8.1
	Other [f]	W	W	W	W	0	0	15.2
2861	**Gum and Wood Chemicals**							
	Participation in One or More of the Following Types of Programs	4	6	4	5	W	*	9.6
	Energy Audits	7	2	*	2	0	0	11.0
	Electricity Load Control	W	W	W	W	0	*	12.7
	Special Rate Schedule [b]	W	W	W	--	--	--	3.2
	Standby Generation Program	W	W	0	W	0	0	12.8
	Equipment Rebates	9	*	*	0	0	0	11.5
	Power Factor Correction or Improvement	W	W	*	*	0	*	10.7
	U.S. EPA's Energy Star Program	10	0	--	--	0	--	1.9
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.2
	U.S. DOE's Motor Challenge Program	10	0	--	--	0	--	1.9
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	5	5	0	5	0	0	9.3
	Direct/Indirect Process Heating	9	*	0	*	0	0	12.2
	Direct Process Cooling/Refrigeration	10	0	0	0	0	0	8.2
	Direct Machine Drive [d]	W	W	*	W	0	*	12.1
	Facility Heating, Ventilation, and Air Conditioning	10	*	0	*	0	*	13.3
	Facility Lighting	W	W	*	W	0	0	13.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	W	W	0	*	0	0	12.8
	Other [f]	10	0	0	0	0	0	8.2

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2865	**Cyclic Crudes and Intermediates**							
	Participation in One or More of the Following Types of Programs	34	121	69	114	22	21	17.2
	Energy Audits	74	81	15	75	16	16	20.2
	Electricity Load Control	121	33	14	23	0	1	23.9
	Special Rate Schedule [b]	102	52	52	--	--	--	3.8
	Standby Generation Program	132	23	18	Q	0	Q	23.2
	Equipment Rebates	150	4	4	0	0	0	20.1
	Power Factor Correction or Improvement	74	80	9	71	0	2	23.2
	U.S. EPA's Energy Star Program	155	0	--	--	0	--	2.1
	U.S. EPA's Green Lights Program	151	3	--	--	3	--	4.6
	U.S. DOE's Motor Challenge Program	155	0	--	--	0	--	2.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	91	64	1	64	18	Q	19.1
	Direct/Indirect Process Heating	123	32	0	32	0	0	18.5
	Direct Process Cooling/Refrigeration	142	13	0	13	0	0	19.9
	Direct Machine Drive [d]	125	29	2	29	0	Q	23.5
	Facility Heating, Ventilation, and Air Conditioning	140	15	0	15	0	0	25.2
	Facility Lighting	122	33	2	30	0	2	24.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	140	15	1	13	0	0	23.4
	Other [f]	155	0	0	0	0	0	12.3
2869	**Industrial Organic Chemicals, nec.**							
	Participation in One or More of the Following Types of Programs	140	1,230	768	1,064	Q	64	9.4
	Energy Audits	520	850	21	843	*	61	14.4
	Electricity Load Control	659	711	4	708	0	0	10.5
	Special Rate Schedule [b]	649	721	721	--	--	--	2.8
	Standby Generation Program	1,128	242	148	148	0	*	10.0
	Equipment Rebates	1,335	35	32	3	0	*	20.1
	Power Factor Correction or Improvement	641	729	211	535	0	*	11.0
	U.S. EPA's Energy Star Program	1,370	0	--	--	0	--	1.9
	U.S. EPA's Green Lights Program	W	W	--	--	Q	--	1.8
	U.S. DOE's Motor Challenge Program	1,370	0	--	--	0	--	1.9
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	642	728	19	725	0	2	12.9
	Direct/Indirect Process Heating	800	570	*	569	0	1	14.8
	Direct Process Cooling/Refrigeration	868	501	W	501	0	0	12.7
	Direct Machine Drive [d]	770	600	15	598	0	7	12.0
	Facility Heating, Ventilation, and Air Conditioning	934	436	1	436	0	*	16.1
	Facility Lighting	850	520	10	512	W	*	10.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	1,082	288	*	288	0	W	15.6
	Other [f]	W	W	0	W	0	0	15.7

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2873	**Nitrogenous Fertilizers**							
	Participation in One or More of the Following Types of Programs	96	190	108	154	2	20	17.3
	Energy Audits	223	63	16	35	2	20	19.4
	Electricity Load Control	201	85	65	75	1	1	23.2
	Special Rate Schedule [b]	190	95	95	--	--	--	4.0
	Standby Generation Program	269	16	16	0	0	0	21.9
	Equipment Rebates	278	8	8	0	0	0	20.8
	Power Factor Correction or Improvement	264	21	15	2	1	6	24.5
	U.S. EPA's Energy Star Program	286	0	--	--	0	--	2.1
	U.S. EPA's Green Lights Program	284	1	--	--	1	--	4.9
	U.S. DOE's Motor Challenge Program	286	0	--	--	0	--	2.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	202	84	0	84	0	14	22.3
	Direct/Indirect Process Heating	205	81	0	81	0	14	22.8
	Direct Process Cooling/Refrigeration	258	28	0	28	0	5	22.9
	Direct Machine Drive [d]	263	23	1	22	1	5	23.4
	Facility Heating, Ventilation, and Air Conditioning	272	14	0	9	1	5	22.8
	Facility Lighting	268	18	4	9	1	5	23.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	286	0	0	0	0	0	13.7
	Other [f]	284	1	0	1	1	0	26.2
2874	**Phosphatic Fertilizers**							
	Participation in One or More of the Following Types of Programs	5	13	10	13	*	*	6.5
	Energy Audits	7	11	W	10	*	*	6.9
	Electricity Load Control	8	10	W	7	0	0	6.8
	Special Rate Schedule [b]	12	6	6	--	--	--	2.4
	Standby Generation Program	W	W	W	W	0	0	8.0
	Equipment Rebates	W	W	W	0	0	0	8.1
	Power Factor Correction or Improvement	7	11	W	9	0	0	6.7
	U.S. EPA's Energy Star Program	18	0	--	--	0	--	1.7
	U.S. EPA's Green Lights Program	18	0	--	--	0	--	1.7
	U.S. DOE's Motor Challenge Program	18	0	--	--	0	--	1.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	11	7	*	7	0	0	9.8
	Direct/Indirect Process Heating	13	5	0	5	0	0	7.7
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	9.5
	Direct Machine Drive [d]	14	5	*	4	0	0	8.5
	Facility Heating, Ventilation, and Air Conditioning	W	W	*	W	0	0	8.8
	Facility Lighting	18	*	0	*	0	0	12.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	W	W	*	0	0	0	8.1
	Other [f]	W	W	W	0	0	0	8.1

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994): Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	RSE Row Factors
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2895	**Carbon Black**							
	Participation in One or More of the Following Types of Programs	W	W	W	29	W	12	15.5
	Energy Audits	17	13	0	13	0	W	17.2
	Electricity Load Control	W	W	0	W	0	0	21.1
	Special Rate Schedule [b]	W	W	W	--	--	--	3.7
	Standby Generation Program	30	0	0	0	0	0	13.7
	Equipment Rebates	30	0	0	0	0	0	13.7
	Power Factor Correction or Improvement	17	13	W	W	0	W	20.1
	U.S. EPA's Energy Star Program	30	0	--	--	0	--	2.1
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	4.3
	U.S. DOE's Motor Challenge Program	30	0	--	--	0	--	2.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	W	W	0	W	0	0	21.7
	Direct/Indirect Process Heating	12	18	0	18	0	0	16.5
	Direct Process Cooling/Refrigeration	30	0	0	0	0	0	13.7
	Direct Machine Drive [d]	W	W	0	W	0	0	17.3
	Facility Heating, Ventilation, and Air Conditioning	19	10	0	10	0	0	18.6
	Facility Lighting	19	11	0	11	0	0	18.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	W	W	0	W	0	0	22.9
	Other [f]	30	0	0	0	0	0	13.7
29	**PETROLEUM and COAL PRODUCTS**							
	Participation in One or More of the Following Types of Programs	638	2,625	1,674	2,393	294	479	4.9
	Energy Audits	981	2,282	463	2,091	W	392	6.1
	Electricity Load Control	1,695	1,568	314	1,398	0	W	7.6
	Special Rate Schedule [b]	1,932	1,331	1,331	--	--	--	2.1
	Standby Generation Program	2,365	898	590	615	0	0	7.5
	Equipment Rebates	2,814	449	361	87	0	W	9.7
	Power Factor Correction or Improvement	1,869	1,394	273	1,269	0	W	7.7
	U.S. EPA's Energy Star Program	3,263	0	--	--	0	--	1.6
	U.S. EPA's Green Lights Program	2,989	274	--	--	274	--	2.5
	U.S. DOE's Motor Challenge Program	3,263	*	--	--	*	--	4.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	1,642	1,621	0	1,621	0	3	9.0
	Direct/Indirect Process Heating	1,501	1,762	2	1,760	*	3	10.7
	Direct Process Cooling/Refrigeration	2,106	1,157	W	1,152	0	W	9.6
	Direct Machine Drive [d]	1,808	1,455	69	1,422	0	0	6.2
	Facility Heating, Ventilation, and Air Conditioning	2,858	405	*	405	0	0	11.3
	Facility Lighting	2,420	843	65	801	0	*	7.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	2,488	774	W	774	0	0	9.1
	Other [f]	3,204	59	Q	55	0	0	10.1

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
2911	**Petroleum Refining**							
	Participation in One or More of the Following Types of Programs	574	2,579	1,649	2,353	292	476	5.1
	Energy Audits	905	2,248	454	2,063	W	391	6.2
	Electricity Load Control	1,608	1,545	310	1,377	0	W	7.6
	Special Rate Schedule [b]	1,835	1,318	1,318	--	--	--	2.2
	Standby Generation Program	2,256	897	589	615	0	0	7.5
	Equipment Rebates	2,714	439	352	87	0	W	9.9
	Power Factor Correction or Improvement	1,777	1,376	270	1,255	0	W	7.7
	U.S. EPA's Energy Star Program	3,153	0	--	--	0	--	1.6
	U.S. EPA's Green Lights Program	2,880	273	--	--	273	--	2.5
	U.S. DOE's Motor Challenge Program	3,153	0	--	--	0	--	1.6
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	1,541	1,612	0	1,612	0	3	9.0
	Direct/Indirect Process Heating	1,405	1,748	W	1,746	0	3	10.6
	Direct Process Cooling/Refrigeration	1,997	1,156	W	1,151	0	W	9.6
	Direct Machine Drive [d]	1,715	1,438	66	1,407	0	0	6.2
	Facility Heating, Ventilation, and Air Conditioning	2,752	401	0	401	0	0	7.0
	Facility Lighting	2,323	830	63	789	0	0	7.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	2,381	772	W	772	0	0	9.1
	Other [f]	W	W	0	55	0	0	10.1
30	**RUBBER and MISC. PLASTICS PRODUCTS**							
	Participation in One or More of the Following Types of Programs	114	173	123	137	29	26	4.6
	Energy Audits	163	124	52	91	4	16	6.2
	Electricity Load Control	207	79	33	59	1	6	7.6
	Special Rate Schedule [b]	220	66	66	--	--	--	2.1
	Standby Generation Program	278	8	3	5	0	1	17.7
	Equipment Rebates	242	44	40	6	2	3	12.6
	Power Factor Correction or Improvement	202	85	34	66	*	3	8.7
	U.S. EPA's Energy Star Program	285	1	--	--	1	--	4.0
	U.S. EPA's Green Lights Program	265	21	--	--	21	--	2.4
	U.S. DOE's Motor Challenge Program	282	5	--	--	5	--	3.5
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	237	50	3	46	*	3	9.8
	Direct/Indirect Process Heating	249	38	3	34	0	1	10.2
	Direct Process Cooling/Refrigeration	247	39	5	34	0	3	9.2
	Direct Machine Drive [d]	207	79	14	68	0	7	8.5
	Facility Heating, Ventilation, and Air Conditioning	223	63	8	55	1	6	8.8
	Facility Lighting	192	95	23	75	3	6	7.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	276	10	2	9	*	*	13.4
	Other [f]	284	2	*	*	2	*	13.7

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
3011	**Tires and Inner Tubes**							
	Participation in One or More of the Following Types of Programs	6	42	28	41	W	5	5.8
	Energy Audits	17	31	6	31	0	W	7.1
	Electricity Load Control	25	23	7	20	0	W	8.2
	Special Rate Schedule [b]	31	17	17	--	--	--	2.3
	Standby Generation Program	48	0	0	0	0	0	5.5
	Equipment Rebates	43	5	5	0	0	0	6.2
	Power Factor Correction or Improvement	26	22	9	22	0	0	5.9
	U.S. EPA's Energy Star Program	48	0	--	--	0	--	1.7
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.2
	U.S. DOE's Motor Challenge Program	48	0	--	--	0	--	1.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	26	23	Q	22	0	W	7.6
	Direct/Indirect Process Heating	35	13	0	13	0	0	8.3
	Direct Process Cooling/Refrigeration	36	12	0	12	0	W	8.2
	Direct Machine Drive [d]	22	27	W	26	0	W	7.6
	Facility Heating, Ventilation, and Air Conditioning	27	22	*	21	0	W	9.7
	Facility Lighting	20	28	W	27	W	0	6.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	45	4	0	4	0	0	8.3
	Other [f]	W	W	0	0	W	0	6.4
308	**Miscellaneous Plastics Products, nec.**							
	Participation in One or More of the Following Types of Programs	88	103	77	74	17	14	6.8
	Energy Audits	118	74	38	47	3	9	8.3
	Electricity Load Control	151	41	20	28	1	2	10.6
	Special Rate Schedule [b]	153	39	39	--	--	--	2.4
	Standby Generation Program	185	7	3	4	0	1	20.4
	Equipment Rebates	157	34	30	5	2	3	14.7
	Power Factor Correction or Improvement	143	48	21	33	*	3	11.6
	U.S. EPA's Energy Star Program	191	1	--	--	1	--	4.2
	U.S. EPA's Green Lights Program	180	12	--	--	12	--	3.0
	U.S. DOE's Motor Challenge Program	187	5	--	--	5	--	3.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	175	17	1	15	0	1	18.1
	Direct/Indirect Process Heating	174	18	3	15	0	1	14.3
	Direct Process Cooling/Refrigeration	170	22	4	17	0	2	13.4
	Direct Machine Drive [d]	149	43	11	34	0	4	12.0
	Facility Heating, Ventilation, and Air Conditioning	160	32	7	25	1	2	13.2
	Facility Lighting	138	54	19	38	Q	3	10.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	187	5	1	4	*	*	18.6
	Other [f]	W	W	*	*	1	*	20.8

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
31	**LEATHER and LEATHER PRODUCTS**							
	Participation in One or More of the Following Types of Programs	W	5	2	4	1	*	20.2
	Energy Audits	W	3	1	2	*	*	24.2
	Electricity Load Control	7	W	1	2	*	*	23.2
	Special Rate Schedule [b]	10	W	*	--	--	--	5.1
	Standby Generation Program	W	2	*	2	0	0	22.7
	Equipment Rebates	8	W	1	1	0	0	25.5
	Power Factor Correction or Improvement	8	W	1	1	0	*	23.4
	U.S. EPA's Energy Star Program	W	W	--	--	*	--	5.4
	U.S. EPA's Green Lights Program	W	W	--	--	*	--	5.4
	U.S. DOE's Motor Challenge Program	W	0	--	--	0	--	2.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	8	W	*	1	0	0	27.6
	Direct/Indirect Process Heating	W	W	1	2	0	0	23.6
	Direct Process Cooling/Refrigeration	W	2	*	1	0	0	27.2
	Direct Machine Drive [d]	W	2	1	1	0	0	26.3
	Facility Heating, Ventilation, and Air Conditioning	8	W	*	2	0	*	26.5
	Facility Lighting	W	2	1	1	0	*	23.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	9	W	0	1	0	0	31.0
	Other [f]	W	0	0	0	0	0	13.7
32	**STONE, CLAY and GLASS PRODUCTS**							
	Participation in One or More of the Following Types of Programs	310	635	515	518	45	75	5.4
	Energy Audits	510	434	165	318	11	63	6.7
	Electricity Load Control	541	404	182	311	1	25	8.2
	Special Rate Schedule [b]	562	382	382	--	--	--	2.2
	Standby Generation Program	849	95	49	69	0	5	12.6
	Equipment Rebates	784	161	153	27	1	9	10.3
	Power Factor Correction or Improvement	686	259	119	188	*	6	9.4
	U.S. EPA's Energy Star Program	936	9	--	--	9	--	3.8
	U.S. EPA's Green Lights Program	917	28	--	--	28	--	3.0
	U.S. DOE's Motor Challenge Program	926	18	--	--	18	--	3.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	913	32	6	29	0	2	18.3
	Direct/Indirect Process Heating	804	141	Q	139	*	2	9.3
	Direct Process Cooling/Refrigeration	918	26	W	25	0	6	14.4
	Direct Machine Drive [d]	594	350	97	297	1	17	9.5
	Facility Heating, Ventilation, and Air Conditioning	802	143	17	127	W	11	9.1
	Facility Lighting	681	264	87	214	0	20	7.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	902	42	4	40	5	*	12.4
	Other [f]	919	26	12	20	*	2	18.3

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
3211	**Flat Glass**							
	Participation in One or More of the Following Types of Programs	5	47	42	42	*	15	17.8
	Energy Audits	20	32	12	18	*	15	20.3
	Electricity Load Control	27	25	15	16	0	5	23.3
	Special Rate Schedule [b]	20	32	32	--	--	--	3.8
	Standby Generation Program	33	19	1	19	0	5	27.1
	Equipment Rebates	36	16	16	5	0	0	21.1
	Power Factor Correction or Improvement	32	20	12	16	0	0	21.5
	U.S. EPA's Energy Star Program	52	0	--	--	0	--	2.2
	U.S. EPA's Green Lights Program	52	0	--	--	0	--	2.2
	U.S. DOE's Motor Challenge Program	52	0	--	--	0	--	2.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	52	0	0	0	0	0	15.0
	Direct/Indirect Process Heating	47	5	0	5	0	0	26.6
	Direct Process Cooling/Refrigeration	44	8	0	8	0	5	28.2
	Direct Machine Drive [d]	25	27	3	25	0	5	24.1
	Facility Heating, Ventilation, and Air Conditioning	35	17	0	17	0	5	24.8
	Facility Lighting	32	20	2	18	0	5	26.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	52	0	0	0	0	0	15.0
	Other [f]	50	2	2	2	0	0	34.9
3221	**Glass Containers**							
	Participation in One or More of the Following Types of Programs	22	62	44	50	W	5	7.7
	Energy Audits	32	51	26	44	W	W	8.3
	Electricity Load Control	55	28	12	27	0	W	9.0
	Special Rate Schedule [b]	60	24	24	--	--	--	2.3
	Standby Generation Program	79	4	W	4	0	0	11.4
	Equipment Rebates	68	15	13	3	0	W	12.0
	Power Factor Correction or Improvement	65	18	3	17	0	0	8.5
	U.S. EPA's Energy Star Program	83	0	--	--	0	--	1.7
	U.S. EPA's Green Lights Program	83	0	--	--	0	--	1.7
	U.S. DOE's Motor Challenge Program	83	0	--	--	0	--	1.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	W	W	W	0	0	0	14.4
	Direct/Indirect Process Heating	80	3	0	3	0	W	14.2
	Direct Process Cooling/Refrigeration	83	0	0	0	0	0	5.5
	Direct Machine Drive [d]	48	36	11	32	0	W	9.0
	Facility Heating, Ventilation, and Air Conditioning	57	26	W	W	0	0	7.1
	Facility Lighting	45	38	19	30	0	W	8.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	W	W	W	W	0	0	15.4
	Other [f]	W	W	0	W	0	0	16.0

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
3229	**Pressed and Blown Glass, nec.**							
	Participation in One or More of the Following Types of Programs	34	29	23	26	10	0	8.3
	Energy Audits	42	20	4	14	W	0	11.5
	Electricity Load Control	49	14	3	13	0	0	14.0
	Special Rate Schedule [b]	46	17	17	--	--	--	2.9
	Standby Generation Program	51	11	W	5	0	0	16.1
	Equipment Rebates	53	10	10	0	0	0	10.3
	Power Factor Correction or Improvement	47	15	5	12	0	0	13.5
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	3.7
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.2
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	3.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	55	7	0	7	0	0	12.1
	Direct/Indirect Process Heating	57	6	0	6	0	0	11.5
	Direct Process Cooling/Refrigeration	58	4	W	4	0	0	14.4
	Direct Machine Drive [d]	46	17	6	16	1	0	13.1
	Facility Heating, Ventilation, and Air Conditioning	49	14	W	8	W	0	11.4
	Facility Lighting	51	12	9	11	0	0	11.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	62	1	0	1	0	0	22.2
	Other [f]	W	W	W	W	0	0	17.2
3241	**Cement, Hydraulic**							
	Participation in One or More of the Following Types of Programs	59	270	249	215	20	32	10.5
	Energy Audits	163	166	47	128	0	31	12.0
	Electricity Load Control	111	218	79	174	0	15	12.0
	Special Rate Schedule [b]	109	219	219	--	--	--	2.8
	Standby Generation Program	301	28	20	24	0	0	17.6
	Equipment Rebates	255	73	73	10	0	4	18.5
	Power Factor Correction or Improvement	223	106	48	66	0	4	15.7
	U.S. EPA's Energy Star Program	W	W	--	--	6	--	4.7
	U.S. EPA's Green Lights Program	314	15	--	--	15	--	4.0
	U.S. DOE's Motor Challenge Program	322	6	--	--	6	--	4.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	325	Q	Q	Q	0	0	8.2
	Direct/Indirect Process Heating	267	62	0	62	0	0	12.2
	Direct Process Cooling/Refrigeration	326	3	0	3	0	0	26.6
	Direct Machine Drive [d]	148	181	62	145	0	6	14.7
	Facility Heating, Ventilation, and Air Conditioning	285	44	0	38	0	6	18.9
	Facility Lighting	224	104	29	85	0	6	16.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	302	27	0	27	5	0	16.6
	Other [f]	314	15	3	12	0	0	24.4

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
3274	**Lime**							
	Participation in One or More of the Following Types of Programs	44	51	45	42	2	Q	25.3
	Energy Audits	61	35	30	6	0	0	25.9
	Electricity Load Control	57	39	34	25	0	Q	31.2
	Special Rate Schedule [b]	79	17	17	--	--	--	4.3
	Standby Generation Program	87	9	Q	5	0	0	36.0
	Equipment Rebates	91	5	3	Q	0	0	34.8
	Power Factor Correction or Improvement	57	39	32	27	0	Q	31.2
	U.S. EPA's Energy Star Program	96	0	--	--	0	--	2.3
	U.S. EPA's Green Lights Program	96	0	--	--	0	--	2.3
	U.S. DOE's Motor Challenge Program	93	2	--	--	2	--	5.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	96	0	0	0	0	0	17.8
	Direct/Indirect Process Heating	86	10	0	10	0	0	24.3
	Direct Process Cooling/Refrigeration	96	0	0	0	0	0	17.8
	Direct Machine Drive [d]	77	18	Q	18	0	Q	30.4
	Facility Heating, Ventilation, and Air Conditioning	91	5	0	5	0	0	34.4
	Facility Lighting	87	9	Q	8	0	0	33.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	96	0	0	0	0	0	17.8
	Other [f]	96	0	0	0	0	0	17.8
3296	**Mineral Wool**							
	Participation in One or More of the Following Types of Programs	12	39	22	34	3	2	13.1
	Energy Audits	22	28	5	27	W	Q	11.8
	Electricity Load Control	41	10	6	6	W	0	13.9
	Special Rate Schedule [b]	37	13	13	--	--	--	3.4
	Standby Generation Program	46	5	1	4	0	0	18.4
	Equipment Rebates	41	10	9	Q	0	Q	11.8
	Power Factor Correction or Improvement	42	9	4	6	0	0	15.4
	U.S. EPA's Energy Star Program	51	0	--	--	0	--	1.9
	U.S. EPA's Green Lights Program	48	3	--	--	3	--	3.6
	U.S. DOE's Motor Challenge Program	51	0	--	--	0	--	1.9
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	48	2	Q	W	0	0	20.8
	Direct/Indirect Process Heating	35	16	0	16	0	0	10.5
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	19.3
	Direct Machine Drive [d]	35	16	6	12	0	0	15.7
	Facility Heating, Ventilation, and Air Conditioning	36	15	Q	15	0	0	12.0
	Facility Lighting	35	16	10	9	0	Q	14.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	48	3	W	W	0	0	18.8
	Other [f]	48	3	Q	Q	0	Q	18.6

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
33	**PRIMARY METAL INDUSTRIES**							
	Participation in One or More of the Following Types of Programs	369	2,199	1,767	1,878	414	475	7.4
	Energy Audits	1,040	1,529	237	1,322	23	289	7.8
	Electricity Load Control	989	1,579	406	1,298	8	95	9.2
	Special Rate Schedule [b]	909	1,660	1,660	--	--	--	2.5
	Standby Generation Program	1,967	601	34	566	*	2	14.7
	Equipment Rebates	2,314	254	248	10	*	3	15.2
	Power Factor Correction or Improvement	1,508	1,060	322	986	W	61	10.1
	U.S. EPA's Energy Star Program	2,545	23	--	--	23	--	3.9
	U.S. EPA's Green Lights Program	2,180	389	--	--	389	--	3.2
	U.S. DOE's Motor Challenge Program	2,561	7	--	--	7	--	3.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	1,238	1,331	8	1,202	W	125	11.0
	Direct/Indirect Process Heating	1,474	1,094	166	968	*	70	12.6
	Direct Process Cooling/Refrigeration	2,225	343	1	342	0	1	18.5
	Direct Machine Drive [d]	1,374	1,194	231	1,011	4	114	12.1
	Facility Heating, Ventilation, and Air Conditioning	1,855	713	64	588	*	71	14.2
	Facility Lighting	1,289	1,279	195	1,082	W	121	10.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	2,051	517	6	465	0	184	13.9
	Other [f]	2,500	69	23	57	W	W	10.7
331	**Blast Furnace and Basic Steel Products**							
	Participation in One or More of the Following Types of Programs	144	1,763	1,487	1,499	344	441	9.9
	Energy Audits	641	1,266	194	1,096	4	261	11.8
	Electricity Load Control	637	1,270	324	1,038	0	90	12.5
	Special Rate Schedule [b]	467	1,440	1,440	--	--	--	2.8
	Standby Generation Program	1,359	548	27	519	0	W	16.1
	Equipment Rebates	1,746	160	160	1	*	*	18.9
	Power Factor Correction or Improvement	1,021	886	288	843	0	59	14.9
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	4.1
	U.S. EPA's Green Lights Program	1,563	343	--	--	343	--	3.4
	U.S. DOE's Motor Challenge Program	1,901	6	--	--	6	--	4.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	660	1,247	1	1,122	0	124	13.5
	Direct/Indirect Process Heating	963	944	159	821	0	68	14.7
	Direct Process Cooling/Refrigeration	1,595	312	*	312	0	*	19.3
	Direct Machine Drive [d]	894	1,013	208	841	W	113	14.3
	Facility Heating, Ventilation, and Air Conditioning	1,311	596	57	475	0	69	17.0
	Facility Lighting	816	1,090	152	918	0	118	13.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	1,427	480	1	432	0	183	15.7
	Other [f]	1,875	31	W	31	*	W	21.2

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
3312	**Blast Furnaces and Steel Mills**							
	Participation in One or More of the Following Types of Programs	114	1,711	1,451	1,459	342	433	10.2
	Energy Audits	586	1,238	185	1,079	W	256	12.3
	Electricity Load Control	583	1,241	317	1,014	0	87	12.5
	Special Rate Schedule [b]	407	1,417	1,417	--	--	--	2.9
	Standby Generation Program	1,282	542	27	514	0	W	17.1
	Equipment Rebates	1,673	151	151	0	0	0	13.3
	Power Factor Correction or Improvement	955	869	277	829	0	W	15.2
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	4.1
	U.S. EPA's Green Lights Program	1,482	342	--	--	342	--	3.6
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	4.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	588	1,236	0	1,114	0	122	11.6
	Direct/Indirect Process Heating	898	927	158	804	0	67	14.7
	Direct Process Cooling/Refrigeration	1,516	308	0	308	0	0	15.7
	Direct Machine Drive [d]	832	992	202	823	W	111	14.6
	Facility Heating, Ventilation, and Air Conditioning	1,239	585	W	466	0	67	17.3
	Facility Lighting	758	1,066	143	897	0	115	13.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	1,349	475	1	429	0	182	16.7
	Other [f]	1,793	31	W	31	0	W	21.2
3313	**Electrometallurgical Products**							
	Participation in One or More of the Following Types of Programs	8	15	8	14	Q	Q	48.2
	Energy Audits	19	Q	Q	Q	0	0	45.1
	Electricity Load Control	10	13	Q	12	0	Q	51.6
	Special Rate Schedule [b]	16	7	7	--	--	--	6.5
	Standby Generation Program	23	0	0	0	0	0	39.6
	Equipment Rebates	23	*	*	0	0	0	41.0
	Power Factor Correction or Improvement	18	Q	Q	Q	0	Q	46.5
	U.S. EPA's Energy Star Program	23	0	--	--	0	--	2.8
	U.S. EPA's Green Lights Program	22	Q	--	--	Q	--	2.8
	U.S. DOE's Motor Challenge Program	23	0	--	--	0	--	2.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	23	0	0	0	0	0	39.6
	Direct/Indirect Process Heating	15	Q	0	Q	0	0	45.1
	Direct Process Cooling/Refrigeration	23	0	0	0	0	0	39.6
	Direct Machine Drive [d]	22	Q	0	Q	0	0	42.4
	Facility Heating, Ventilation, and Air Conditioning	22	Q	0	Q	0	0	42.4
	Facility Lighting	18	Q	*	Q	0	0	45.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	23	0	0	0	0	0	39.6
	Other [f]	23	0	0	0	0	0	39.6

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
3321	**Gray and Ductile Iron Foundries**							
	Participation in One or More of the Following Types of Programs	24	68	54	56	10	7	14.6
	Energy Audits	50	42	10	34	*	7	17.1
	Electricity Load Control	45	48	23	40	0	1	17.5
	Special Rate Schedule [b]	51	41	41	--	--	--	3.3
	Standby Generation Program	83	10	3	7	0	0	19.4
	Equipment Rebates	62	30	27	5	0	0	19.8
	Power Factor Correction or Improvement	63	29	7	24	0	0	17.2
	U.S. EPA's Energy Star Program	92	0	--	--	0	--	2.0
	U.S. EPA's Green Lights Program	83	9	--	--	9	--	4.7
	U.S. DOE's Motor Challenge Program	92	1	--	--	1	--	4.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	83	9	6	9	0	0	24.4
	Direct/Indirect Process Heating	72	20	2	20	0	0	19.7
	Direct Process Cooling/Refrigeration	91	1	0	1	0	0	30.2
	Direct Machine Drive [d]	68	24	8	21	0	0	16.8
	Facility Heating, Ventilation, and Air Conditioning	80	13	1	11	0	0	20.4
	Facility Lighting	67	26	9	18	0	0	15.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	91	1	0	1	0	0	24.9
	Other [f]	92	0	0	0	0	0	10.9
3331	**Primary Copper**							
	Participation in One or More of the Following Types of Programs	W	W	23	28	0	*	1.1
	Energy Audits	W	W	W	24	0	0	1.2
	Electricity Load Control	10	22	W	19	0	*	1.1
	Special Rate Schedule [b]	12	21	21	--	--	--	1.0
	Standby Generation Program	W	W	*	W	0	0	1.2
	Equipment Rebates	W	W	W	0	0	0	1.1
	Power Factor Correction or Improvement	W	W	0	W	0	*	1.2
	U.S. EPA's Energy Star Program	32	0	--	--	0	--	1.2
	U.S. EPA's Green Lights Program	32	0	--	--	0	--	1.2
	U.S. DOE's Motor Challenge Program	32	0	--	--	0	--	1.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	W	W	0	W	0	0	1.2
	Direct/Indirect Process Heating	W	W	0	W	0	*	1.2
	Direct Process Cooling/Refrigeration	W	W	0	*	0	*	1.2
	Direct Machine Drive [d]	W	W	0	W	0	0	1.2
	Facility Heating, Ventilation, and Air Conditioning	W	W	0	W	0	*	1.2
	Facility Lighting	W	W	W	W	0	0	1.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	32	0	0	0	0	0	1.4
	Other [f]	W	W	0	W	0	0	1.2

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
3334	**Primary Aluminum**							
	Participation in One or More of the Following Types of Programs	61	140	62	123	39	0	1.1
	Energy Audits	129	72	0	67	W	0	1.4
	Electricity Load Control	74	127	25	107	W	0	1.1
	Special Rate Schedule [b]	146	55	55	--	--	--	1.3
	Standby Generation Program	W	W	0	W	0	0	1.2
	Equipment Rebates	W	W	W	0	0	0	1.1
	Power Factor Correction or Improvement	151	51	W	38	W	0	1.4
	U.S. EPA's Energy Star Program	201	0	--	--	0	--	1.2
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	1.0
	U.S. DOE's Motor Challenge Program	201	0	--	--	0	--	1.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	159	42	0	42	0	0	1.2
	Direct/Indirect Process Heating	139	62	0	62	0	0	1.2
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	1.2
	Direct Machine Drive [d]	134	67	0	67	0	0	1.9
	Facility Heating, Ventilation, and Air Conditioning	152	49	0	49	0	0	1.2
	Facility Lighting	138	63	W	63	0	0	1.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	W	W	0	W	0	0	1.2
	Other [f]	168	33	0	W	W	0	1.0
3339	**Primary Nonferrous Metals, nec.**							
	Participation in One or More of the Following Types of Programs	19	19	8	17	*	*	15.8
	Energy Audits	27	11	*	11	*	*	19.3
	Electricity Load Control	24	14	2	14	0	*	20.9
	Special Rate Schedule [b]	32	7	7	--	--	--	3.5
	Standby Generation Program	38	0	0	0	0	0	13.7
	Equipment Rebates	W	W	W	*	*	*	23.2
	Power Factor Correction or Improvement	32	6	W	6	0	0	19.0
	U.S. EPA's Energy Star Program	38	*	--	--	*	--	4.5
	U.S. EPA's Green Lights Program	38	*	--	--	*	--	4.5
	U.S. DOE's Motor Challenge Program	38	0	--	--	0	--	2.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	38	*	*	*	0	*	26.5
	Direct/Indirect Process Heating	30	8	*	8	0	*	24.2
	Direct Process Cooling/Refrigeration	W	W	*	0	0	0	22.2
	Direct Machine Drive [d]	32	6	2	4	0	*	21.4
	Facility Heating, Ventilation, and Air Conditioning	W	W	*	*	0	*	24.9
	Facility Lighting	36	2	*	2	0	*	23.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	38	*	0	*	0	0	24.6
	Other [f]	38	0	0	0	0	0	13.7

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
3353	**Aluminum Sheet, Plate, and Foil**							
	Participation in One or More of the Following Types of Programs	26	47	37	44	W	W	6.7
	Energy Audits	43	30	*	29	*	W	8.8
	Electricity Load Control	61	12	*	11	0	0	7.5
	Special Rate Schedule [b]	48	25	25	--	--	--	2.4
	Standby Generation Program	W	W	0	W	0	0	11.2
	Equipment Rebates	55	18	18	0	0	0	6.9
	Power Factor Correction or Improvement	52	21	W	17	W	0	8.3
	U.S. EPA's Energy Star Program	73	0	--	--	0	--	1.7
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.7
	U.S. DOE's Motor Challenge Program	73	0	--	--	0	--	1.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	W	W	0	W	W	0	9.2
	Direct/Indirect Process Heating	61	12	0	12	0	0	7.0
	Direct Process Cooling/Refrigeration	68	4	0	4	0	0	8.3
	Direct Machine Drive [d]	53	20	*	20	0	0	8.2
	Facility Heating, Ventilation, and Air Conditioning	64	9	0	9	0	0	7.7
	Facility Lighting	51	21	W	13	W	0	8.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	63	10	W	W	0	0	9.8
	Other [f]	73	0	0	0	0	0	5.5
34	**FABRICATED METAL PRODUCTS**							
	Participation in One or More of the Following Types of Programs	187	178	117	143	26	34	8.6
	Energy Audits	253	113	56	76	9	21	9.3
	Electricity Load Control	275	90	36	69	2	10	13.5
	Special Rate Schedule [b]	306	59	59	--	--	--	2.7
	Standby Generation Program	345	20	9	15	1	4	18.6
	Equipment Rebates	309	56	51	10	2	8	14.5
	Power Factor Correction or Improvement	284	81	27	68	2	5	12.6
	U.S. EPA's Energy Star Program	364	1	--	--	1	--	4.4
	U.S. EPA's Green Lights Program	350	15	--	--	15	--	3.3
	U.S. DOE's Motor Challenge Program	358	7	--	--	7	--	3.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	329	37	3	33	4	5	15.0
	Direct/Indirect Process Heating	328	37	5	32	1	4	17.3
	Direct Process Cooling/Refrigeration	345	20	6	15	1	2	20.1
	Direct Machine Drive [d]	302	63	20	50	1	8	12.9
	Facility Heating, Ventilation, and Air Conditioning	303	62	16	53	3	7	13.7
	Facility Lighting	274	91	33	68	4	10	10.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	346	20	3	18	*	2	18.6
	Other [f]	361	4	1	4	*	Q	27.9

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
35	**INDUSTRIAL MACHINERY and EQUIPMENT**							
	Participation in One or More of the Following Types of Programs	102	143	107	114	16	30	6.3
	Energy Audits	145	100	55	66	4	20	7.6
	Electricity Load Control	167	78	27	63	1	5	9.7
	Special Rate Schedule [b]	189	56	56	--	--	--	2.4
	Standby Generation Program	225	20	9	19	*	*	17.8
	Equipment Rebates	191	54	52	7	1	3	12.0
	Power Factor Correction or Improvement	191	54	15	45	0	4	10.0
	U.S. EPA's Energy Star Program	243	2	--	--	2	--	3.5
	U.S. EPA's Green Lights Program	234	11	--	--	11	--	2.8
	U.S. DOE's Motor Challenge Program	244	1	--	--	1	--	3.5
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	226	19	2	16	1	1	17.5
	Direct/Indirect Process Heating	224	21	3	20	*	Q	13.2
	Direct Process Cooling/Refrigeration	223	22	5	20	*	3	13.4
	Direct Machine Drive [d]	196	48	11	43	*	2	12.2
	Facility Heating, Ventilation, and Air Conditioning	178	67	16	57	1	6	10.6
	Facility Lighting	152	93	38	74	1	5	9.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	228	17	Q	16	0	*	10.4
	Other [f]	240	5	Q	4	*	3	21.5
357	**Computer and Office Equipment**							
	Participation in One or More of the Following Types of Programs	4	16	14	15	4	5	16.9
	Energy Audits	7	13	7	13	*	4	20.6
	Electricity Load Control	10	10	6	10	0	*	23.0
	Special Rate Schedule [b]	11	9	9	--	--	--	4.1
	Standby Generation Program	16	4	2	4	0	0	27.2
	Equipment Rebates	8	12	11	2	0	0	20.6
	Power Factor Correction or Improvement	14	6	3	5	0	*	23.9
	U.S. EPA's Energy Star Program	19	1	--	--	1	--	4.8
	U.S. EPA's Green Lights Program	16	4	--	--	4	--	4.0
	U.S. DOE's Motor Challenge Program	20	*	--	--	*	--	4.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	18	2	*	2	0	0	33.1
	Direct/Indirect Process Heating	19	1	0	1	0	0	26.9
	Direct Process Cooling/Refrigeration	14	6	3	5	0	*	28.6
	Direct Machine Drive [d]	13	7	4	6	0	*	26.5
	Facility Heating, Ventilation, and Air Conditioning	8	12	6	11	0	*	23.7
	Facility Lighting	7	13	7	12	1	*	19.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	18	2	0	2	0	0	28.1
	Other [f]	20	0	0	0	0	0	16.4

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
36	**ELECTRONIC and OTHER ELECTRIC EQUIPMENT**							
	Participation in One or More of the Following Types of Programs	76	155	108	129	39	39	7.5
	Energy Audits	114	116	51	85	5	31	10.3
	Electricity Load Control	135	95	33	80	4	13	12.4
	Special Rate Schedule [b]	165	65	65	--	--	--	2.9
	Standby Generation Program	209	21	4	17	*	2	16.4
	Equipment Rebates	174	56	51	9	Q	6	14.5
	Power Factor Correction or Improvement	147	83	30	68	Q	7	11.1
	U.S. EPA's Energy Star Program	223	7	--	--	7	--	4.3
	U.S. EPA's Green Lights Program	196	34	--	--	34	--	3.1
	U.S. DOE's Motor Challenge Program	W	W	--	--	Q	--	2.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	198	32	1	30	1	4	16.2
	Direct/Indirect Process Heating	202	28	4	24	*	4	16.2
	Direct Process Cooling/Refrigeration	189	41	8	37	0	5	13.6
	Direct Machine Drive [d]	168	62	18	54	0	6	11.3
	Facility Heating, Ventilation, and Air Conditioning	158	72	13	62	0	8	10.6
	Facility Lighting	138	92	26	77	2	8	11.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	205	26	4	24	0	2	18.4
	Other [f]	W	W	Q	4	Q	Q	26.9
37	**TRANSPORTATION EQUIPMENT**							
	Participation in One or More of the Following Types of Programs	69	290	236	255	41	47	6.8
	Energy Audits	121	238	112	191	17	33	7.9
	Electricity Load Control	191	167	63	145	1	10	10.2
	Special Rate Schedule [b]	233	125	125	--	--	--	2.5
	Standby Generation Program	300	58	14	43	1	5	14.1
	Equipment Rebates	232	126	122	16	2	7	12.0
	Power Factor Correction or Improvement	216	142	48	112	*	5	11.3
	U.S. EPA's Energy Star Program	348	10	--	--	10	--	3.3
	U.S. EPA's Green Lights Program	324	34	--	--	34	--	2.9
	U.S. DOE's Motor Challenge Program	345	14	--	--	14	--	3.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	278	80	9	73	2	6	13.4
	Direct/Indirect Process Heating	287	71	15	68	2	2	12.8
	Direct Process Cooling/Refrigeration	287	71	13	65	2	1	12.9
	Direct Machine Drive [d]	240	119	30	104	2	6	9.9
	Facility Heating, Ventilation, and Air Conditioning	210	148	30	137	4	5	10.8
	Facility Lighting	176	183	73	156	5	9	9.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	307	52	16	51	4	1	14.6
	Other [f]	353	5	3	Q	*	Q	17.6

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
3711	**Motor Vehicles and Car Bodies**							
	Participation in One or More of the Following Types of Programs	14	91	73	83	6	5	19.3
	Energy Audits	34	71	35	50	0	4	21.5
	Electricity Load Control	63	42	14	39	0	2	24.2
	Special Rate Schedule [b]	66	39	39	--	--	--	3.8
	Standby Generation Program	99	6	*	6	0	0	32.7
	Equipment Rebates	75	30	27	Q	0	0	18.4
	Power Factor Correction or Improvement	61	45	18	30	0	2	24.8
	U.S. EPA's Energy Star Program	105	0	--	--	0	--	2.1
	U.S. EPA's Green Lights Program	99	6	--	--	6	--	4.9
	U.S. DOE's Motor Challenge Program	105	0	--	--	0	--	2.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	82	23	Q	19	0	4	25.0
	Direct/Indirect Process Heating	84	21	0	21	0	0	19.7
	Direct Process Cooling/Refrigeration	87	18	0	18	0	0	20.5
	Direct Machine Drive [d]	75	30	Q	30	0	0	18.1
	Facility Heating, Ventilation, and Air Conditioning	65	40	2	40	0	0	23.2
	Facility Lighting	61	44	13	36	0	0	20.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	88	17	7	17	0	0	27.8
	Other [f]	105	0	0	0	0	0	13.7
3714	**Motor Vehicle Parts and Accessories**							
	Participation in One or More of the Following Types of Programs	30	87	72	68	7	16	10.5
	Energy Audits	51	66	26	54	3	8	12.1
	Electricity Load Control	78	39	14	33	*	4	17.3
	Special Rate Schedule [b]	85	32	32	--	--	--	3.1
	Standby Generation Program	101	16	7	5	0	5	22.3
	Equipment Rebates	81	35	35	5	0	1	19.1
	Power Factor Correction or Improvement	71	45	15	34	*	1	15.4
	U.S. EPA's Energy Star Program	117	*	--	--	*	--	1.9
	U.S. EPA's Green Lights Program	114	3	--	--	3	--	3.8
	U.S. DOE's Motor Challenge Program	115	2	--	--	2	--	4.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	100	17	3	14	*	2	20.7
	Direct/Indirect Process Heating	107	10	4	8	*	1	19.7
	Direct Process Cooling/Refrigeration	100	17	4	14	*	*	20.4
	Direct Machine Drive [d]	89	28	10	21	0	2	15.6
	Facility Heating, Ventilation, and Air Conditioning	85	32	6	27	*	2	18.7
	Facility Lighting	66	50	19	37	Q	2	14.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	106	11	1	11	0	1	21.7
	Other [f]	115	Q	*	Q	*	Q	18.5

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
38	**INSTRUMENTS and RELATED PRODUCTS**							
	Participation in One or More of the Following Types of Programs	21	85	42	76	18	16	10.0
	Energy Audits	31	75	23	64	5	11	12.3
	Electricity Load Control	50	56	11	51	1	3	15.5
	Special Rate Schedule [b]	86	19	19	--	--	--	2.9
	Standby Generation Program	72	33	4	31	1	1	21.6
	Equipment Rebates	52	54	26	32	1	4	17.2
	Power Factor Correction or Improvement	63	43	5	41	1	1	19.8
	U.S. EPA's Energy Star Program	103	3	--	--	3	--	3.9
	U.S. EPA's Green Lights Program	90	16	--	--	16	--	3.2
	U.S. DOE's Motor Challenge Program	104	1	--	--	1	--	4.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	69	36	*	35	0	2	25.0
	Direct/Indirect Process Heating	69	36	1	36	0	3	23.3
	Direct Process Cooling/Refrigeration	67	39	2	37	0	1	21.7
	Direct Machine Drive [d]	50	56	11	52	0	3	17.3
	Facility Heating, Ventilation, and Air Conditioning	46	60	9	56	0	4	15.0
	Facility Lighting	42	64	14	53	1	8	15.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	73	33	*	32	0	2	24.7
	Other [f]	105	1	*	*	*	*	26.3
3841	**Surgical and Medical Instruments**							
	Participation in One or More of the Following Types of Programs	3	4	3	3	1	1	12.6
	Energy Audits	4	3	2	2	*	1	16.2
	Electricity Load Control	5	2	1	1	*	*	17.9
	Special Rate Schedule [b]	6	2	2	--	--	--	3.6
	Standby Generation Program	7	1	*	*	0	0	25.7
	Equipment Rebates	5	2	2	*	0	*	20.6
	Power Factor Correction or Improvement	6	1	*	1	0	*	24.2
	U.S. EPA's Energy Star Program	7	*	--	--	*	--	4.9
	U.S. EPA's Green Lights Program	7	1	--	--	1	--	3.8
	U.S. DOE's Motor Challenge Program	7	*	--	--	*	--	4.9
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	7	*	*	*	0	*	28.6
	Direct/Indirect Process Heating	6	1	0	1	0	*	24.6
	Direct Process Cooling/Refrigeration	6	1	*	1	0	*	24.1
	Direct Machine Drive [d]	6	1	*	*	0	*	25.0
	Facility Heating, Ventilation, and Air Conditioning	5	2	1	2	0	1	17.3
	Facility Lighting	5	2	1	1	0	*	16.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	7	*	0	0	0	*	26.9
	Other [f]	7	*	0	*	*	*	27.6

See footnotes at end of table.

Table A24. Total Inputs of Energy for Heat, Power, and Electricity Generation by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 1 (Continued)

(Estimates in Trillion Btu)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.7	1.1	1.0	0.7	1.9	0.9	
39	**MISC. MANUFACTURING INDUSTRIES**							
	Participation in One or More of the Following Types of Programs	27	23	17	17	3	4	14.6
	Energy Audits	37	13	7	9	1	3	16.6
	Electricity Load Control	38	13	6	9	*	2	17.4
	Special Rate Schedule [b]	43	7	7	--	--	--	3.8
	Standby Generation Program	49	1	1	1	*	0	28.9
	Equipment Rebates	41	10	10	*	Q	1	22.9
	Power Factor Correction or Improvement	42	9	5	6	*	2	18.6
	U.S. EPA's Energy Star Program	50	*	--	--	*	--	5.1
	U.S. EPA's Green Lights Program	49	2	--	--	2	--	4.6
	U.S. DOE's Motor Challenge Program	50	*	--	--	*	--	2.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [c]	48	2	1	2	*	*	24.8
	Direct/Indirect Process Heating	46	4	1	3	*	1	24.1
	Direct Process Cooling/Refrigeration	47	4	1	3	*	*	24.7
	Direct Machine Drive [d]	43	7	3	5	*	*	20.3
	Facility Heating, Ventilation, and Air Conditioning	43	8	1	7	*	*	23.6
	Facility Lighting	37	14	6	9	1	1	21.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [e]	49	2	*	1	0	*	27.8
	Other [f]	51	*	0	*	0	0	38.4

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] For example, interruptible or time-of-use rates.
[c] For example, boilers, burners, and nozzles.
[d] For example, adjustable-speed drives, motors, and pumps.
[e] For example, electrification of a subset of the manufacturing operation.
[f] Included are improvements in operating procedures and other energy-management programs reported by respondents.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
-- Estimation is not applicable.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • "Sponsorship" is determined by the respondent. • EPA = Environmental Protection Agency. • DOE = Department of Energy.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
20-39	**ALL INDUSTRY GROUPS**							
	Participation in One or More of the Following Types of Programs	202,190	44,735	29,256	27,887	3,554	6,537	3.2
	Energy Audits	220,482	26,443	14,644	13,864	1,430	3,971	4.0
	Electricity Load Control	229,367	17,558	7,663	12,281	462	1,399	5.5
	Special Rate Schedule [c]	235,859	11,066	11,066	--	--	--	1.6
	Standby Generation Program	243,937	2,988	820	2,229	36	283	8.5
	Equipment Rebates	234,256	12,668	10,927	2,179	484	1,151	7.5
	Power Factor Correction or Improvement	234,328	12,597	5,931	7,861	72	838	5.7
	U.S. EPA's Energy Star Program	246,545	380	--	--	380	--	3.1
	U.S. EPA's Green Lights Program	245,286	1,639	--	--	1,639	--	2.3
	U.S. DOE's Motor Challenge Program	246,525	400	--	--	400	--	3.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	241,246	5,679	798	4,751	190	548	8.6
	Direct/Indirect Process Heating	240,953	5,972	1,050	4,910	78	422	8.1
	Direct Process Cooling/Refrigeration	242,498	4,427	1,066	3,421	29	430	8.3
	Direct Machine Drive [e]	235,939	10,986	3,529	8,246	67	883	5.9
	Facility Heating, Ventilation, and Air Conditioning	235,218	11,707	2,833	8,909	230	1,169	7.5
	Facility Lighting	228,851	18,074	8,528	10,391	264	1,561	5.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	244,201	2,724	379	2,346	Q	172	8.7
	Other [g]	245,934	991	330	745	Q	211	18.4
20	**FOOD and KINDRED PRODUCTS**							
	Participation in One or More of the Following Types of Programs	10,329	4,369	2,727	3,136	266	604	7.7
	Energy Audits	11,821	2,877	1,281	1,872	135	327	9.3
	Electricity Load Control	12,776	1,922	748	1,470	Q	142	10.1
	Special Rate Schedule [c]	13,551	1,147	1,147	--	--	--	2.0
	Standby Generation Program	14,358	340	132	200	0	39	12.2
	Equipment Rebates	13,280	1,418	1,226	239	34	56	13.5
	Power Factor Correction or Improvement	13,203	1,495	568	1,039	0	167	9.2
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	1.3
	U.S. EPA's Green Lights Program	14,626	72	--	--	72	--	2.7
	U.S. DOE's Motor Challenge Program	14,679	19	--	--	19	--	2.6
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	13,444	1,254	141	1,091	16	100	13.6
	Direct/Indirect Process Heating	13,766	932	62	877	W	35	11.7
	Direct Process Cooling/Refrigeration	13,757	941	129	833	W	75	11.0
	Direct Machine Drive [e]	12,913	1,785	468	1,396	10	94	11.0
	Facility Heating, Ventilation, and Air Conditioning	13,752	946	109	816	4	77	11.6
	Facility Lighting	12,827	1,871	739	1,237	Q	98	11.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	14,538	160	14	145	0	30	11.3
	Other [g]	14,681	17	6	14	W	0	17.0

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2011	**Meat Packing Plants**							
	Participation in One or More of the Following Types of Programs	593	166	73	159	W	18	13.9
	Energy Audits	670	89	19	73	0	9	12.3
	Electricity Load Control	696	63	19	52	0	W	14.4
	Special Rate Schedule [c]	733	26	26	--	--	--	2.5
	Standby Generation Program	748	11	4	7	0	0	11.6
	Equipment Rebates	702	57	53	6	0	0	13.3
	Power Factor Correction or Improvement	689	70	29	43	0	4	14.2
	U.S. EPA's Energy Star Program	759	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	759	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	2.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	720	39	W	33	0	7	12.1
	Direct/Indirect Process Heating	711	48	0	44	0	4	14.3
	Direct Process Cooling/Refrigeration	701	58	16	41	0	4	17.6
	Direct Machine Drive [e]	675	84	20	66	0	W	19.1
	Facility Heating, Ventilation, and Air Conditioning	713	46	W	30	0	W	18.8
	Facility Lighting	699	60	20	41	0	0	18.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	749	10	0	10	0	0	9.4
	Other [g]	W	W	0	W	0	0	11.6
2033	**Canned Fruits and Vegetables**							
	Participation in One or More of the Following Types of Programs	287	244	133	183	8	20	14.9
	Energy Audits	393	138	44	105	0	11	16.1
	Electricity Load Control	446	85	23	64	0	6	18.6
	Special Rate Schedule [c]	466	65	65	--	--	--	3.3
	Standby Generation Program	517	14	W	12	0	0	14.3
	Equipment Rebates	441	90	75	18	W	W	16.4
	Power Factor Correction or Improvement	464	67	33	34	0	W	16.1
	U.S. EPA's Energy Star Program	531	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.1
	U.S. DOE's Motor Challenge Program	528	3	--	--	3	--	3.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	454	77	3	76	0	0	17.1
	Direct/Indirect Process Heating	485	46	W	45	0	0	20.8
	Direct Process Cooling/Refrigeration	492	39	0	39	0	0	13.7
	Direct Machine Drive [e]	425	106	23	88	0	0	14.3
	Facility Heating, Ventilation, and Air Conditioning	490	41	0	41	0	0	15.1
	Facility Lighting	433	98	36	79	0	6	20.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	519	12	0	12	0	0	15.5
	Other [g]	531	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2037	**Frozen Fruits and Vegetables**							
	Participation in One or More of the Following Types of Programs	181	Q	Q	Q	Q	Q	68.5
	Energy Audits	204	Q	Q	Q	W	Q	34.2
	Electricity Load Control	213	Q	Q	Q	W	W	25.7
	Special Rate Schedule [c]	213	Q	Q	--	--	--	1.8
	Standby Generation Program	W	W	0	W	0	0	4.3
	Equipment Rebates	210	Q	Q	Q	W	W	25.7
	Power Factor Correction or Improvement	215	Q	Q	Q	0	W	21.4
	U.S. EPA's Energy Star Program	232	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	232	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	221	Q	W	Q	0	0	12.8
	Direct/Indirect Process Heating	225	Q	0	Q	0	0	12.8
	Direct Process Cooling/Refrigeration	211	Q	Q	Q	W	W	25.7
	Direct Machine Drive [e]	210	Q	Q	Q	W	0	25.7
	Facility Heating, Ventilation, and Air Conditioning	226	Q	W	Q	W	0	8.6
	Facility Lighting	209	Q	Q	Q	0	W	30.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	229	Q	W	Q	0	0	4.3
	Other [g]	232	0	0	0	0	0	4.3
2046	**Wet Corn Milling**							
	Participation in One or More of the Following Types of Programs	28	30	23	25	W	6	9.3
	Energy Audits	38	20	6	17	W	4	11.7
	Electricity Load Control	47	11	4	7	0	0	12.2
	Special Rate Schedule [c]	41	17	17	--	--	--	2.5
	Standby Generation Program	54	4	3	0	0	W	15.7
	Equipment Rebates	44	14	14	0	0	0	8.4
	Power Factor Correction or Improvement	44	14	7	7	0	0	10.8
	U.S. EPA's Energy Star Program	58	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	58	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	58	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	45	13	W	13	0	0	12.6
	Direct/Indirect Process Heating	42	16	0	16	0	0	10.1
	Direct Process Cooling/Refrigeration	48	10	0	10	0	0	11.2
	Direct Machine Drive [e]	42	16	3	13	0	0	12.1
	Facility Heating, Ventilation, and Air Conditioning	51	7	0	7	0	0	10.8
	Facility Lighting	45	13	3	11	0	0	11.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	54	4	0	4	0	0	13.3
	Other [g]	58	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2051	**Bread, Cake, and Related Products**							
	Participation in One or More of the Following Types of Programs	1,007	296	176	223	Q	41	18.0
	Energy Audits	1,130	173	72	79	W	26	19.3
	Electricity Load Control	1,165	138	37	104	0	W	17.4
	Special Rate Schedule [c]	1,222	81	81	--	--	--	3.2
	Standby Generation Program	1,268	35	19	21	0	0	18.9
	Equipment Rebates	1,214	89	72	19	0	0	17.5
	Power Factor Correction or Improvement	1,193	110	27	78	0	11	20.0
	U.S. EPA's Energy Star Program	1,303	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	1,303	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	3.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	1,291	12	7	8	0	W	18.7
	Direct/Indirect Process Heating	1,271	32	Q	32	0	0	14.3
	Direct Process Cooling/Refrigeration	1,259	44	4	41	0	W	18.1
	Direct Machine Drive [e]	1,200	103	8	98	0	0	18.2
	Facility Heating, Ventilation, and Air Conditioning	1,242	61	8	55	0	0	19.0
	Facility Lighting	1,215	88	33	64	0	7	17.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	1,289	14	0	Q	0	W	17.7
	Other [g]	W	W	0	W	0	0	16.1
2061	**Cane Sugar, Except Refining**							
	Participation in One or More of the Following Types of Programs	22	21	9	20	W	3	8.4
	Energy Audits	29	14	W	12	W	W	12.5
	Electricity Load Control	31	12	W	12	0	0	10.0
	Special Rate Schedule [c]	35	8	8	--	--	--	2.6
	Standby Generation Program	37	6	3	4	0	0	10.8
	Equipment Rebates	43	0	0	0	0	0	4.3
	Power Factor Correction or Improvement	29	14	0	13	0	W	11.2
	U.S. EPA's Energy Star Program	43	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.1
	U.S. DOE's Motor Challenge Program	43	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	28	15	W	14	0	0	11.0
	Direct/Indirect Process Heating	32	11	0	11	0	0	8.5
	Direct Process Cooling/Refrigeration	43	0	0	0	0	0	4.3
	Direct Machine Drive [e]	31	12	0	12	0	0	8.5
	Facility Heating, Ventilation, and Air Conditioning	40	3	0	3	0	0	11.8
	Facility Lighting	35	8	0	8	W	W	12.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	40	3	0	3	0	W	14.3
	Other [g]	43	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2062	**Cane Sugar Refining**							
	Participation in One or More of the Following Types of Programs	9	11	6	9	0	3	18.0
	Energy Audits	17	3	W	3	0	0	24.6
	Electricity Load Control	15	5	W	5	0	0	23.6
	Special Rate Schedule [c]	15	5	5	--	--	--	3.8
	Standby Generation Program	W	W	0	W	0	0	27.0
	Equipment Rebates	17	3	W	3	0	0	24.6
	Power Factor Correction or Improvement	14	6	W	6	0	0	21.9
	U.S. EPA's Energy Star Program	20	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	20	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	20	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	12	8	3	5	0	0	21.0
	Direct/Indirect Process Heating	17	3	0	3	0	0	22.7
	Direct Process Cooling/Refrigeration	20	0	0	0	0	0	4.3
	Direct Machine Drive [e]	15	5	0	5	0	0	21.5
	Facility Heating, Ventilation, and Air Conditioning	20	0	0	0	0	0	4.3
	Facility Lighting	12	8	0	6	0	W	22.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	W	28.6
	Other [g]	20	0	0	0	0	0	4.3
2063	**Beet Sugar**							
	Participation in One or More of the Following Types of Programs	15	26	10	25	0	W	3.4
	Energy Audits	26	15	W	14	0	0	3.8
	Electricity Load Control	28	13	3	11	0	W	3.9
	Special Rate Schedule [c]	W	W	W	--	--	--	1.9
	Standby Generation Program	36	5	5	0	0	0	3.9
	Equipment Rebates	36	5	5	0	0	0	3.9
	Power Factor Correction or Improvement	25	16	W	15	0	0	3.7
	U.S. EPA's Energy Star Program	41	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	41	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	41	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	27	14	0	14	0	0	3.9
	Direct/Indirect Process Heating	23	18	0	18	0	0	3.0
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	5.4
	Direct Machine Drive [e]	18	23	W	22	0	0	3.7
	Facility Heating, Ventilation, and Air Conditioning	32	9	0	9	0	0	3.1
	Facility Lighting	32	9	0	9	0	0	3.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	38	3	0	3	0	0	4.3
	Other [g]	41	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2075	***Soybean Oil Mills***							
	Participation in One or More of the Following Types of Programs	29	66	36	55	W	9	1.0
	Energy Audits	61	34	8	25	W	6	1.0
	Electricity Load Control	60	35	12	28	0	5	1.2
	Special Rate Schedule [c]	72	23	23	--	--	--	1.3
	Standby Generation Program	83	12	W	10	0	0	1.3
	Equipment Rebates	80	15	14	3	0	W	1.2
	Power Factor Correction or Improvement	59	36	9	29	0	5	1.2
	U.S. EPA's Energy Star Program	95	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	95	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	95	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	67	28	W	27	0	W	1.2
	Direct/Indirect Process Heating	63	32	0	31	0	W	1.3
	Direct Process Cooling/Refrigeration	88	7	0	6	0	W	1.3
	Direct Machine Drive [e]	58	37	W	35	0	3	1.2
	Facility Heating, Ventilation, and Air Conditioning	83	12	W	9	0	W	1.2
	Facility Lighting	74	21	3	17	0	W	1.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	88	7	0	6	0	W	1.3
	Other [g]	95	0	0	0	0	0	4.3
2082	**Malt Beverages**							
	Participation in One or More of the Following Types of Programs	W	W	102	136	11	8	4.5
	Energy Audits	14	126	59	96	W	W	8.4
	Electricity Load Control	50	90	30	83	0	W	10.2
	Special Rate Schedule [c]	79	61	61	--	--	--	2.9
	Standby Generation Program	135	5	W	5	0	W	6.8
	Equipment Rebates	81	59	59	W	W	0	10.8
	Power Factor Correction or Improvement	78	62	18	57	0	5	13.7
	U.S. EPA's Energy Star Program	140	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	135	5	--	--	5	--	2.1
	U.S. DOE's Motor Challenge Program	140	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	89	51	W	48	W	W	9.1
	Direct/Indirect Process Heating	77	63	0	63	0	W	11.3
	Direct Process Cooling/Refrigeration	63	77	W	74	0	W	10.8
	Direct Machine Drive [e]	51	89	13	89	0	W	12.5
	Facility Heating, Ventilation, and Air Conditioning	83	57	W	57	0	0	11.3
	Facility Lighting	98	42	11	36	0	0	11.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	6.4
	Other [g]	140	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
21	**TOBACCO PRODUCTS**							
	Participation in One or More of the Following Types of Programs	48	73	32	61	9	W	9.1
	Energy Audits	61	60	10	48	9	W	10.3
	Electricity Load Control	82	39	W	27	W	W	12.0
	Special Rate Schedule [c]	89	32	32	--	--	--	2.6
	Standby Generation Program	121	0	0	0	0	0	4.3
	Equipment Rebates	111	10	6	6	0	W	8.2
	Power Factor Correction or Improvement	86	35	W	27	W	W	10.3
	U.S. EPA's Energy Star Program	121	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	121	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	121	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	93	28	0	23	W	W	9.5
	Direct/Indirect Process Heating	102	19	0	13	W	0	9.0
	Direct Process Cooling/Refrigeration	93	28	W	20	W	0	9.6
	Direct Machine Drive [e]	93	28	0	23	W	0	8.8
	Facility Heating, Ventilation, and Air Conditioning	99	22	0	16	W	W	9.3
	Facility Lighting	83	38	0	33	W	W	9.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	9.0
	Other [g]	121	0	0	0	0	0	4.3
22	**TEXTILE MILL PRODUCTS**							
	Participation in One or More of the Following Types of Programs	2,986	1,441	1,090	1,064	106	W	13.9
	Energy Audits	3,614	813	414	538	57	W	14.0
	Electricity Load Control	3,923	504	W	355	W	W	16.2
	Special Rate Schedule [c]	3,772	655	655	--	--	--	3.1
	Standby Generation Program	4,302	Q	W	Q	0	W	22.1
	Equipment Rebates	4,128	299	289	W	W	Q	17.5
	Power Factor Correction or Improvement	4,080	347	W	173	0	3	17.3
	U.S. EPA's Energy Star Program	4,420	Q	--	--	Q	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.5
	U.S. DOE's Motor Challenge Program	4,416	10	--	--	10	--	3.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	4,164	263	22	250	W	12	20.6
	Direct/Indirect Process Heating	4,179	247	Q	235	W	W	17.0
	Direct Process Cooling/Refrigeration	4,306	120	22	100	0	10	15.6
	Direct Machine Drive [e]	3,996	430	117	358	0	W	16.0
	Facility Heating, Ventilation, and Air Conditioning	4,198	229	W	208	W	35	16.6
	Facility Lighting	3,882	545	152	412	Q	56	17.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	4,347	79	W	W	0	W	19.2
	Other [g]	4,421	Q	W	0	W	W	9.2

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
23	**APPAREL and OTHER TEXTILE PRODUCTS**							
	Participation in One or More of the Following Types of Programs	16,297	1,722	704	1,106	18	218	15.1
	Energy Audits	17,082	937	418	529	9	112	17.8
	Electricity Load Control	17,327	692	180	469	0	Q	18.3
	Special Rate Schedule [c]	17,728	291	291	--	--	--	2.5
	Standby Generation Program	17,878	141	27	Q	0	Q	15.3
	Equipment Rebates	17,565	454	139	Q	0	W	15.7
	Power Factor Correction or Improvement	17,476	543	120	380	0	Q	21.7
	U.S. EPA's Energy Star Program	18,019	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	18,019	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	18,019	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	17,863	156	56	59	0	Q	16.3
	Direct/Indirect Process Heating	17,849	170	39	Q	0	W	13.0
	Direct Process Cooling/Refrigeration	17,654	Q	Q	Q	0	W	17.4
	Direct Machine Drive [e]	17,580	439	43	Q	0	Q	20.2
	Facility Heating, Ventilation, and Air Conditioning	17,221	798	45	705	0	Q	22.9
	Facility Lighting	17,228	791	205	454	0	155	21.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	18,002	17	15	Q	0	W	20.2
	Other [g]	17,995	24	W	24	W	0	19.2
24	**LUMBER and WOOD PRODUCTS**							
	Participation in One or More of the Following Types of Programs	18,536	2,944	1,945	1,682	157	180	10.8
	Energy Audits	20,068	1,413	724	694	31	142	12.9
	Electricity Load Control	20,460	1,021	486	640	0	45	12.0
	Special Rate Schedule [c]	20,821	660	660	--	--	--	2.6
	Standby Generation Program	21,066	415	17	400	W	W	19.5
	Equipment Rebates	20,932	549	309	231	81	11	14.0
	Power Factor Correction or Improvement	20,413	1,068	619	566	0	15	13.4
	U.S. EPA's Energy Star Program	21,481	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	21,443	38	--	--	38	--	3.4
	U.S. DOE's Motor Challenge Program	21,467	13	--	--	13	--	3.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	21,114	367	23	349	W	7	13.1
	Direct/Indirect Process Heating	21,126	354	42	341	0	10	17.7
	Direct Process Cooling/Refrigeration	21,206	Q	Q	50	0	0	17.3
	Direct Machine Drive [e]	20,773	707	331	404	0	Q	12.1
	Facility Heating, Ventilation, and Air Conditioning	20,907	574	Q	326	W	20	14.4
	Facility Lighting	20,745	736	410	360	36	20	15.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	21,298	183	13	174	0	W	22.8
	Other [g]	21,459	22	W	22	0	0	20.8

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2421	**Sawmills and Planing Mills, General**							
	Participation in One or More of the Following Types of Programs	2,774	632	404	451	25	26	17.0
	Energy Audits	3,135	272	118	207	0	10	21.8
	Electricity Load Control	3,020	386	155	278	0	W	16.4
	Special Rate Schedule [c]	3,157	249	249	--	--	--	3.7
	Standby Generation Program	3,359	Q	6	Q	0	0	11.4
	Equipment Rebates	3,292	115	90	Q	W	0	11.0
	Power Factor Correction or Improvement	3,018	389	199	217	0	Q	17.5
	U.S. EPA's Energy Star Program	3,406	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	3,400	Q	--	--	Q	--	1.3
	U.S. DOE's Motor Challenge Program	3,396	10	--	--	10	--	3.5
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	3,298	108	15	95	0	5	15.6
	Direct/Indirect Process Heating	3,355	52	5	48	0	W	15.2
	Direct Process Cooling/Refrigeration	3,396	Q	0	Q	0	0	4.3
	Direct Machine Drive [e]	3,236	170	43	130	0	W	13.3
	Facility Heating, Ventilation, and Air Conditioning	3,350	56	W	55	0	3	14.4
	Facility Lighting	3,286	120	51	97	W	Q	14.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	3,366	40	W	36	0	0	17.8
	Other [g]	3,406	0	0	0	0	0	4.3
2436	**Softwood Veneer and Plywood**							
	Participation in One or More of the Following Types of Programs	93	89	44	78	4	8	9.3
	Energy Audits	121	61	10	54	W	W	11.7
	Electricity Load Control	141	41	13	33	0	W	10.4
	Special Rate Schedule [c]	170	12	12	--	--	--	2.4
	Standby Generation Program	W	W	0	W	0	0	16.4
	Equipment Rebates	167	15	15	W	0	0	17.8
	Power Factor Correction or Improvement	123	59	17	55	0	6	14.6
	U.S. EPA's Energy Star Program	182	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	182	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	182	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	162	20	0	20	W	0	7.8
	Direct/Indirect Process Heating	170	12	0	12	0	0	8.2
	Direct Process Cooling/Refrigeration	182	0	0	0	0	0	4.3
	Direct Machine Drive [e]	140	42	W	42	0	0	16.6
	Facility Heating, Ventilation, and Air Conditioning	159	23	0	23	0	0	16.2
	Facility Lighting	163	19	W	17	0	0	13.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	13.3
	Other [g]	182	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2493	**Reconstituted Wood Products**							
	Participation in One or More of the Following Types of Programs	164	82	38	54	W	Q	43.0
	Energy Audits	184	Q	12	Q	0	Q	54.2
	Electricity Load Control	219	27	13	23	0	0	35.7
	Special Rate Schedule [c]	217	29	29	--	--	--	5.1
	Standby Generation Program	242	4	W	W	0	W	22.0
	Equipment Rebates	235	Q	Q	0	0	0	12.8
	Power Factor Correction or Improvement	229	17	4	Q	0	0	32.6
	U.S. EPA's Energy Star Program	246	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	246	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	3.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	233	Q	W	Q	0	0	12.8
	Direct/Indirect Process Heating	236	10	0	10	0	0	23.9
	Direct Process Cooling/Refrigeration	243	Q	0	Q	0	0	4.3
	Direct Machine Drive [e]	218	28	W	22	0	W	38.8
	Facility Heating, Ventilation, and Air Conditioning	233	Q	W	Q	0	W	23.4
	Facility Lighting	224	22	Q	18	0	W	35.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	239	Q	W	Q	0	W	27.7
	Other [g]	246	0	0	0	0	0	4.3
25	**FURNITURE and FIXTURES**							
	Participation in One or More of the Following Types of Programs	6,358	1,328	826	673	171	181	15.3
	Energy Audits	7,006	680	330	303	Q	141	18.2
	Electricity Load Control	7,089	597	375	273	9	24	19.3
	Special Rate Schedule [c]	7,428	258	258	--	--	--	3.5
	Standby Generation Program	7,655	31	0	31	0	0	13.3
	Equipment Rebates	7,351	335	321	17	W	Q	17.9
	Power Factor Correction or Improvement	7,492	194	57	109	W	Q	13.1
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.8
	U.S. DOE's Motor Challenge Program	7,680	6	--	--	6	--	3.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	7,519	167	Q	147	W	Q	17.8
	Direct/Indirect Process Heating	7,614	72	8	63	W	W	13.5
	Direct Process Cooling/Refrigeration	7,654	32	W	28	0	W	13.3
	Direct Machine Drive [e]	7,561	125	24	103	0	9	13.6
	Facility Heating, Ventilation, and Air Conditioning	7,388	298	58	256	W	Q	24.2
	Facility Lighting	7,327	359	182	215	W	18	14.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	Q	W	W	11.4
	Other [g]	W	W	0	W	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2511	**Wood Furniture, Except Upholstered**							
	Participation in One or More of the Following Types of Programs	1,227	316	124	201	Q	27	28.9
	Energy Audits	1,408	135	70	75	3	10	23.1
	Electricity Load Control	1,375	168	Q	Q	W	8	27.7
	Special Rate Schedule [c]	1,459	84	84	--	--	--	4.2
	Standby Generation Program	1,523	21	0	21	0	0	14.6
	Equipment Rebates	1,529	14	14	0	0	0	15.1
	Power Factor Correction or Improvement	1,489	54	21	38	W	10	17.7
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	1.6
	U.S. EPA's Green Lights Program	1,531	13	--	--	13	--	3.3
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	1,493	50	W	33	0	Q	13.4
	Direct/Indirect Process Heating	1,518	25	0	22	W	W	13.1
	Direct Process Cooling/Refrigeration	1,531	12	0	12	0	W	15.5
	Direct Machine Drive [e]	1,496	47	5	45	0	Q	16.9
	Facility Heating, Ventilation, and Air Conditioning	1,463	80	W	52	0	W	24.1
	Facility Lighting	1,480	63	Q	30	0	6	22.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	1,532	11	0	11	0	0	14.6
	Other [g]	W	W	0	W	0	0	17.9
26	**PAPER and ALLIED PRODUCTS**							
	Participation in One or More of the Following Types of Programs	3,779	1,803	1,215	1,224	186	295	7.1
	Energy Audits	4,548	1,034	426	623	102	196	8.2
	Electricity Load Control	4,913	669	267	456	16	71	10.9
	Special Rate Schedule [c]	5,026	556	556	--	--	--	2.0
	Standby Generation Program	5,496	86	45	44	W	15	8.1
	Equipment Rebates	4,947	635	553	118	15	37	11.4
	Power Factor Correction or Improvement	4,997	585	232	428	3	33	10.8
	U.S. EPA's Energy Star Program	5,576	6	--	--	6	--	2.4
	U.S. EPA's Green Lights Program	5,525	57	--	--	57	--	2.6
	U.S. DOE's Motor Challenge Program	5,557	25	--	--	25	--	2.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	5,314	268	20	233	8	26	8.5
	Direct/Indirect Process Heating	5,294	288	21	244	W	35	12.2
	Direct Process Cooling/Refrigeration	5,491	91	19	72	W	15	10.6
	Direct Machine Drive [e]	4,970	612	201	459	5	42	6.6
	Facility Heating, Ventilation, and Air Conditioning	5,297	285	33	243	W	37	9.4
	Facility Lighting	4,834	748	354	441	9	52	10.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	5,465	117	37	76	W	11	12.5
	Other [g]	5,566	16	6	W	W	7	14.2

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2611	**Pulp Mills**							
	Participation in One or More of the Following Types of Programs	12	43	38	28	7	7	5.1
	Energy Audits	27	28	15	14	W	5	7.4
	Electricity Load Control	31	24	15	14	0	W	8.2
	Special Rate Schedule [c]	31	24	24	--	--	--	2.2
	Standby Generation Program	50	5	5	W	0	0	11.0
	Equipment Rebates	38	17	15	0	0	W	8.2
	Power Factor Correction or Improvement	38	17	9	12	0	0	7.3
	U.S. EPA's Energy Star Program	55	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.7
	U.S. DOE's Motor Challenge Program	50	5	--	--	5	--	2.6
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	38	17	3	14	0	W	9.5
	Direct/Indirect Process Heating	45	10	W	9	0	W	10.5
	Direct Process Cooling/Refrigeration	52	3	W	W	0	W	12.0
	Direct Machine Drive [e]	36	19	5	15	0	W	8.6
	Facility Heating, Ventilation, and Air Conditioning	48	7	W	5	0	W	11.6
	Facility Lighting	43	12	3	9	0	W	9.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	10.9
	Other [g]	55	0	0	0	0	0	4.3
2621	**Paper Mills**							
	Participation in One or More of the Following Types of Programs	70	240	189	208	31	43	2.5
	Energy Audits	133	177	85	143	11	29	3.1
	Electricity Load Control	188	122	46	105	3	8	4.5
	Special Rate Schedule [c]	199	111	111	--	--	--	1.4
	Standby Generation Program	274	36	19	23	W	W	6.8
	Equipment Rebates	200	110	97	14	6	9	4.5
	Power Factor Correction or Improvement	194	116	36	100	3	3	5.1
	U.S. EPA's Energy Star Program	306	4	--	--	4	--	2.4
	U.S. EPA's Green Lights Program	304	6	--	--	6	--	2.2
	U.S. DOE's Motor Challenge Program	300	10	--	--	10	--	2.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	227	83	6	77	4	4	5.2
	Direct/Indirect Process Heating	237	73	3	68	W	6	5.8
	Direct Process Cooling/Refrigeration	290	20	5	18	W	W	7.8
	Direct Machine Drive [e]	170	140	50	107	4	13	4.2
	Facility Heating, Ventilation, and Air Conditioning	256	54	3	48	W	3	6.9
	Facility Lighting	180	130	59	89	W	10	4.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	273	37	5	32	0	W	6.9
	Other [g]	306	4	W	W	W	0	11.4

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2631	**Paperboard Mills**							
	Participation in One or More of the Following Types of Programs	50	169	121	140	13	26	1.7
	Energy Audits	104	115	35	89	7	18	2.1
	Electricity Load Control	139	80	25	65	W	8	3.0
	Special Rate Schedule [c]	137	82	82	--	--	--	1.3
	Standby Generation Program	199	20	12	10	0	W	4.6
	Equipment Rebates	164	55	50	13	3	W	3.4
	Power Factor Correction or Improvement	146	73	22	62	0	5	2.8
	U.S. EPA's Energy Star Program	219	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.1
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	2.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	151	68	3	60	0	8	3.2
	Direct/Indirect Process Heating	181	38	5	35	0	0	3.2
	Direct Process Cooling/Refrigeration	209	10	W	9	0	0	5.4
	Direct Machine Drive [e]	128	91	25	72	W	6	3.1
	Facility Heating, Ventilation, and Air Conditioning	186	33	6	28	0	W	4.4
	Facility Lighting	158	61	24	43	W	0	2.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	196	23	3	21	0	W	4.3
	Other [g]	W	W	0	0	0	W	7.6
27	**PRINTING and PUBLISHING**							
	Participation in One or More of the Following Types of Programs	33,640	3,744	2,931	1,470	154	631	10.5
	Energy Audits	35,252	2,132	1,661	553	39	258	10.1
	Electricity Load Control	36,271	1,112	485	794	3	140	11.7
	Special Rate Schedule [c]	36,699	685	685	--	--	--	2.8
	Standby Generation Program	37,246	138	93	89	0	Q	16.4
	Equipment Rebates	36,512	872	854	36	61	39	15.3
	Power Factor Correction or Improvement	36,800	584	301	363	0	44	11.2
	U.S. EPA's Energy Star Program	37,376	8	--	--	8	--	2.8
	U.S. EPA's Green Lights Program	37,335	49	--	--	49	--	2.6
	U.S. DOE's Motor Challenge Program	37,378	6	--	--	6	--	3.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	37,106	278	5	263	0	12	21.4
	Direct/Indirect Process Heating	37,294	90	11	72	W	5	14.5
	Direct Process Cooling/Refrigeration	37,204	180	71	157	W	Q	14.4
	Direct Machine Drive [e]	36,854	529	137	439	6	64	15.4
	Facility Heating, Ventilation, and Air Conditioning	36,289	1,095	498	414	W	Q	13.5
	Facility Lighting	35,832	1,552	1,093	581	Q	132	13.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	37,238	146	Q	83	W	11	14.2
	Other [g]	37,308	76	Q	31	W	0	16.8

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
28	**CHEMICALS and ALLIED PRODUCTS**							
	Participation in One or More of the Following Types of Programs	6,109	3,456	2,059	2,691	255	352	8.0
	Energy Audits	7,820	1,745	835	1,056	80	263	8.5
	Electricity Load Control	8,009	1,556	580	1,196	Q	97	10.8
	Special Rate Schedule [c]	8,380	1,185	1,185	--	--	--	2.2
	Standby Generation Program	9,299	266	110	167	W	23	10.8
	Equipment Rebates	8,706	859	788	90	6	17	13.4
	Power Factor Correction or Improvement	8,441	1,124	508	785	6	40	11.3
	U.S. EPA's Energy Star Program	9,550	15	--	--	15	--	2.4
	U.S. EPA's Green Lights Program	9,428	137	--	--	137	--	2.3
	U.S. DOE's Motor Challenge Program	9,551	14	--	--	14	--	2.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	8,771	794	65	706	10	73	12.7
	Direct/Indirect Process Heating	9,194	371	23	349	0	17	9.8
	Direct Process Cooling/Refrigeration	9,166	399	81	331	W	11	8.9
	Direct Machine Drive [e]	8,607	958	258	834	4	62	13.9
	Facility Heating, Ventilation, and Air Conditioning	8,851	714	94	620	3	47	14.4
	Facility Lighting	8,306	1,259	359	969	21	80	13.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	9,404	161	12	137	3	18	10.0
	Other [g]	9,402	Q	7	Q	4	0	7.6
2812	**Alkalies and Chlorine**							
	Participation in One or More of the Following Types of Programs	18	26	20	21	4	3	3.6
	Energy Audits	31	13	W	10	4	W	5.6
	Electricity Load Control	28	16	3	16	0	0	4.4
	Special Rate Schedule [c]	28	16	16	--	--	--	1.6
	Standby Generation Program	41	3	W	W	0	0	7.4
	Equipment Rebates	41	3	W	W	W	0	6.9
	Power Factor Correction or Improvement	30	14	4	13	0	0	4.6
	U.S. EPA's Energy Star Program	44	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	44	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	44	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	35	9	0	8	0	W	5.1
	Direct/Indirect Process Heating	W	W	0	W	0	0	5.9
	Direct Process Cooling/Refrigeration	40	4	0	4	0	0	5.4
	Direct Machine Drive [e]	40	4	0	4	0	0	5.4
	Facility Heating, Ventilation, and Air Conditioning	40	4	0	4	0	0	5.4
	Facility Lighting	41	3	0	W	W	0	6.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	44	0	0	0	0	0	4.3
	Other [g]	W	W	W	W	0	0	8.2

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2813	**Industrial Gases**							
	Participation in One or More of the Following Types of Programs	257	366	334	326	0	W	8.6
	Energy Audits	539	84	12	81	0	W	12.3
	Electricity Load Control	321	302	91	276	0	W	10.1
	Special Rate Schedule [c]	291	332	332	--	--	--	2.5
	Standby Generation Program	616	7	0	7	0	0	8.6
	Equipment Rebates	459	164	161	W	0	0	14.2
	Power Factor Correction or Improvement	386	237	159	92	0	0	10.0
	U.S. EPA's Energy Star Program	623	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	623	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	623	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	616	7	0	7	0	0	8.6
	Direct/Indirect Process Heating	W	W	0	W	0	0	11.6
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	9.0
	Direct Machine Drive [e]	607	16	0	16	0	0	7.7
	Facility Heating, Ventilation, and Air Conditioning	W	W	0	W	0	0	11.6
	Facility Lighting	W	W	W	W	0	0	11.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	601	22	0	22	0	0	20.3
	Other [g]	623	0	0	0	0	0	4.3
2816	**Inorganic Pigments**							
	Participation in One or More of the Following Types of Programs	43	38	16	31	3	3	4.7
	Energy Audits	55	26	7	21	0	W	5.7
	Electricity Load Control	65	16	3	13	0	0	5.2
	Special Rate Schedule [c]	73	8	8	--	--	--	1.8
	Standby Generation Program	76	5	0	4	0	W	7.5
	Equipment Rebates	66	15	11	3	0	W	6.5
	Power Factor Correction or Improvement	65	16	3	15	0	W	6.3
	U.S. EPA's Energy Star Program	81	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	81	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	81	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	76	5	W	5	0	0	7.2
	Direct/Indirect Process Heating	69	12	0	12	0	0	4.3
	Direct Process Cooling/Refrigeration	81	0	0	0	0	0	4.3
	Direct Machine Drive [e]	68	13	3	11	0	0	5.4
	Facility Heating, Ventilation, and Air Conditioning	76	5	0	5	0	0	5.9
	Facility Lighting	62	19	5	13	0	0	5.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	81	0	0	0	0	0	4.3
	Other [g]	78	3	0	0	3	0	5.5

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2819	**Industrial Inorganic Chemicals, nec.**							
	Participation in One or More of the Following Types of Programs	330	238	171	180	17	25	14.8
	Energy Audits	422	146	70	96	W	13	13.9
	Electricity Load Control	464	104	31	85	0	3	15.2
	Special Rate Schedule [c]	452	116	116	--	--	--	3.1
	Standby Generation Program	525	43	19	26	0	W	17.1
	Equipment Rebates	535	33	27	9	0	3	11.0
	Power Factor Correction or Improvement	466	102	31	77	0	W	15.7
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	2.8
	U.S. EPA's Green Lights Program	556	12	--	--	12	--	3.0
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	2.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	504	64	Q	48	3	3	12.1
	Direct/Indirect Process Heating	519	49	3	46	0	W	12.9
	Direct Process Cooling/Refrigeration	550	18	3	15	0	W	11.4
	Direct Machine Drive [e]	463	105	21	90	0	5	13.4
	Facility Heating, Ventilation, and Air Conditioning	541	27	5	24	W	W	11.1
	Facility Lighting	510	58	6	50	W	4	12.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	555	13	W	9	W	W	12.5
	Other [g]	W	W	0	W	0	0	10.5
2821	**Plastics Materials and Resins**							
	Participation in One or More of the Following Types of Programs	226	230	157	175	19	19	10.8
	Energy Audits	338	118	68	69	W	12	12.0
	Electricity Load Control	361	95	57	40	0	5	16.8
	Special Rate Schedule [c]	368	88	88	--	--	--	2.6
	Standby Generation Program	441	15	6	9	0	0	9.5
	Equipment Rebates	404	52	49	W	0	0	13.7
	Power Factor Correction or Improvement	391	65	17	45	0	5	11.7
	U.S. EPA's Energy Star Program	456	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	438	18	--	--	18	--	2.9
	U.S. DOE's Motor Challenge Program	456	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	402	54	6	47	0	W	13.2
	Direct/Indirect Process Heating	388	68	7	61	0	0	24.4
	Direct Process Cooling/Refrigeration	419	37	19	17	0	0	12.4
	Direct Machine Drive [e]	384	72	12	63	0	W	9.7
	Facility Heating, Ventilation, and Air Conditioning	435	21	W	17	0	W	11.2
	Facility Lighting	404	52	21	38	0	0	8.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	429	27	0	27	0	0	12.3
	Other [g]	453	3	W	3	0	0	8.8

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2822	**Synthetic Rubber**							
	Participation in One or More of the Following Types of Programs	19	44	26	25	3	6	10.4
	Energy Audits	39	24	8	14	0	5	12.8
	Electricity Load Control	50	13	4	8	W	0	14.6
	Special Rate Schedule [c]	51	12	12	--	--	--	2.8
	Standby Generation Program	63	0	0	0	0	0	4.3
	Equipment Rebates	60	3	3	0	0	0	16.3
	Power Factor Correction or Improvement	47	16	8	10	0	0	12.8
	U.S. EPA's Energy Star Program	63	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.5
	U.S. DOE's Motor Challenge Program	63	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	57	6	0	5	W	W	19.1
	Direct/Indirect Process Heating	58	5	W	4	0	W	20.9
	Direct Process Cooling/Refrigeration	58	5	0	5	0	0	14.2
	Direct Machine Drive *	58	5	0	5	0	0	14.2
	Facility Heating, Ventilation, and Air Conditioning	54	9	0	9	0	0	13.0
	Facility Lighting	53	10	4	5	0	W	18.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	60	3	0	3	0	0	18.0
	Other [g]	63	0	0	0	0	0	4.3
2823	**Cellulosic Manmade Fibers**							
	Participation in One or More of the Following Types of Programs	4	7	4	7	4	0	1.0
	Energy Audits	4	7	W	6	W	0	1.0
	Electricity Load Control	7	4	W	3	0	0	1.3
	Special Rate Schedule [c]	8	3	3	--	--	--	1.0
	Standby Generation Program	W	W	0	W	0	0	1.5
	Equipment Rebates	11	0	0	0	0	0	4.3
	Power Factor Correction or Improvement	W	W	W	W	0	0	1.3
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	1.0
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	1.0
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	1.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	8	3	0	3	0	0	1.5
	Direct/Indirect Process Heating	W	W	0	W	0	0	1.5
	Direct Process Cooling/Refrigeration	7	4	0	4	0	0	1.5
	Direct Machine Drive *	7	4	0	4	0	0	1.5
	Facility Heating, Ventilation, and Air Conditioning	8	3	0	3	0	0	1.5
	Facility Lighting	8	3	0	3	0	0	1.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	1.5
	Other [g]	11	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2824	**Organic Fibers, Noncellulosic**							
	Participation in One or More of the Following Types of Programs	12	61	42	56	6	7	3.1
	Energy Audits	33	40	12	36	W	4	4.6
	Electricity Load Control	39	34	7	31	0	W	4.8
	Special Rate Schedule [c]	41	32	32	--	--	--	1.6
	Standby Generation Program	65	8	7	5	0	0	5.2
	Equipment Rebates	62	11	9	W	0	W	6.6
	Power Factor Correction or Improvement	52	21	11	15	0	0	4.5
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	2.5
	U.S. EPA's Green Lights Program	69	4	--	--	4	--	2.1
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	2.5
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	60	13	W	13	0	0	5.6
	Direct/Indirect Process Heating	57	16	0	16	0	0	4.7
	Direct Process Cooling/Refrigeration	51	22	W	21	W	W	6.2
	Direct Machine Drive [e]	40	33	4	32	0	W	5.6
	Facility Heating, Ventilation, and Air Conditioning	51	22	0	22	0	0	3.9
	Facility Lighting	44	29	4	27	0	W	5.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	61	12	0	12	0	0	4.3
	Other [g]	W	W	W	W	0	0	9.6
2861	**Gum and Wood Chemicals**							
	Participation in One or More of the Following Types of Programs	47	13	7	10	W	W	4.5
	Energy Audits	53	7	W	6	0	0	5.5
	Electricity Load Control	54	6	5	W	0	W	6.1
	Special Rate Schedule [c]	W	W	W	--	--	--	2.3
	Standby Generation Program	W	W	0	W	0	0	7.7
	Equipment Rebates	W	W	W	0	0	0	7.0
	Power Factor Correction or Improvement	55	5	W	5	0	W	6.1
	U.S. EPA's Energy Star Program	60	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.3
	U.S. DOE's Motor Challenge Program	60	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	54	6	0	6	0	0	4.9
	Direct/Indirect Process Heating	W	W	0	W	0	0	6.4
	Direct Process Cooling/Refrigeration	60	0	0	0	0	0	4.3
	Direct Machine Drive [e]	54	6	W	5	0	W	6.5
	Facility Heating, Ventilation, and Air Conditioning	W	W	0	W	0	W	8.3
	Facility Lighting	W	W	W	W	0	0	7.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	7.7
	Other [g]	60	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2865	**Cyclic Crudes and Intermediates**							
	Participation in One or More of the Following Types of Programs	74	113	74	93	11	24	13.2
	Energy Audits	109	78	27	65	7	16	16.9
	Electricity Load Control	140	47	21	28	0	5	17.7
	Special Rate Schedule [c]	143	44	44	--	--	--	3.5
	Standby Generation Program	179	8	4	W	0	W	16.6
	Equipment Rebates	159	28	28	0	0	0	20.1
	Power Factor Correction or Improvement	141	46	11	39	0	4	18.2
	U.S. EPA's Energy Star Program	187	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	183	4	--	--	4	--	2.9
	U.S. DOE's Motor Challenge Program	187	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	153	34	W	34	W	W	14.3
	Direct/Indirect Process Heating	173	14	0	14	0	0	10.3
	Direct Process Cooling/Refrigeration	177	10	0	10	0	0	9.8
	Direct Machine Drive [e]	160	27	4	27	0	W	17.1
	Facility Heating, Ventilation, and Air Conditioning	163	24	0	24	0	0	23.8
	Facility Lighting	138	49	5	40	0	7	20.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	176	11	W	9	0	0	11.0
	Other [g]	187	0	0	0	0	0	4.3
2869	**Industrial Organic Chemicals, nec.**							
	Participation in One or More of the Following Types of Programs	388	243	170	172	18	28	15.6
	Energy Audits	457	174	61	133	W	21	16.7
	Electricity Load Control	528	103	19	91	0	0	15.2
	Special Rate Schedule [c]	503	128	128	--	--	--	3.4
	Standby Generation Program	597	34	10	22	0	W	11.7
	Equipment Rebates	593	38	35	6	0	W	17.2
	Power Factor Correction or Improvement	553	78	24	63	0	W	12.7
	U.S. EPA's Energy Star Program	631	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	613	18	--	--	18	--	4.1
	U.S. DOE's Motor Challenge Program	631	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	532	99	9	92	0	Q	15.8
	Direct/Indirect Process Heating	571	60	W	55	0	Q	10.5
	Direct Process Cooling/Refrigeration	581	50	W	50	0	0	12.2
	Direct Machine Drive [e]	539	92	11	87	0	6	12.7
	Facility Heating, Ventilation, and Air Conditioning	582	49	Q	43	0	W	11.3
	Facility Lighting	536	95	27	74	W	Q	13.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	618	13	W	13	0	W	10.4
	Other [g]	W	W	0	W	0	0	9.8

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2873	**Nitrogenous Fertilizers**							
	Participation in One or More of the Following Types of Programs	76	42	22	30	4	8	7.5
	Energy Audits	94	24	6	15	4	8	8.8
	Electricity Load Control	107	11	5	9	W	W	13.0
	Special Rate Schedule [c]	103	15	15	--	--	--	2.3
	Standby Generation Program	W	W	W	0	0	0	10.8
	Equipment Rebates	112	6	6	0	0	0	8.1
	Power Factor Correction or Improvement	108	10	4	5	W	3	13.4
	U.S. EPA's Energy Star Program	118	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.2
	U.S. DOE's Motor Challenge Program	118	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	105	13	0	13	0	3	10.7
	Direct/Indirect Process Heating	107	11	0	11	0	3	11.2
	Direct Process Cooling/Refrigeration	107	11	0	11	0	W	12.2
	Direct Machine Drive [e]	107	11	3	9	W	W	13.7
	Facility Heating, Ventilation, and Air Conditioning	109	9	0	8	W	W	11.6
	Facility Lighting	107	11	3	9	W	W	13.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	118	0	0	0	0	0	4.3
	Other [g]	W	W	0	W	W	0	15.1
2874	**Phosphatic Fertilizers**							
	Participation in One or More of the Following Types of Programs	38	31	20	21	W	W	3.2
	Energy Audits	51	18	6	14	W	W	3.8
	Electricity Load Control	56	13	5	11	0	0	3.1
	Special Rate Schedule [c]	56	13	13	--	--	--	1.4
	Standby Generation Program	60	9	4	5	0	0	3.5
	Equipment Rebates	64	5	5	0	0	0	3.4
	Power Factor Correction or Improvement	54	15	5	10	0	0	3.1
	U.S. EPA's Energy Star Program	69	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	69	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	69	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	59	10	W	9	0	0	5.0
	Direct/Indirect Process Heating	64	5	0	5	0	0	3.7
	Direct Process Cooling/Refrigeration	66	3	0	3	0	0	4.9
	Direct Machine Drive [e]	58	11	3	9	0	0	3.4
	Facility Heating, Ventilation, and Air Conditioning	64	5	W	4	0	0	4.5
	Facility Lighting	W	W	0	W	0	0	4.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	W	0	0	0	5.4
	Other [g]	W	W	W	0	0	0	5.4

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2895	**Carbon Black**							
	Participation in One or More of the Following Types of Programs	5	18	W	18	W	5	7.8
	Energy Audits	17	6	0	6	0	W	10.2
	Electricity Load Control	20	3	0	3	0	0	11.3
	Special Rate Schedule [c]	W	W	W	--	--	--	2.8
	Standby Generation Program	23	0	0	0	0	0	4.3
	Equipment Rebates	23	0	0	0	0	0	4.3
	Power Factor Correction or Improvement	17	6	W	3	0	W	12.5
	U.S. EPA's Energy Star Program	23	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.1
	U.S. DOE's Motor Challenge Program	23	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	20	3	0	3	0	0	11.3
	Direct/Indirect Process Heating	13	10	0	10	0	0	8.3
	Direct Process Cooling/Refrigeration	23	0	0	0	0	0	4.3
	Direct Machine Drive [e]	19	4	0	4	0	0	11.2
	Facility Heating, Ventilation, and Air Conditioning	18	5	0	5	0	0	9.9
	Facility Lighting	17	6	0	6	0	0	10.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	14.2
	Other [g]	23	0	0	0	0	0	4.3
29	**PETROLEUM and COAL PRODUCTS**							
	Participation in One or More of the Following Types of Programs	1,443	528	251	446	51	41	13.0
	Energy Audits	1,598	373	74	315	Q	25	13.4
	Electricity Load Control	1,717	254	45	226	0	5	16.0
	Special Rate Schedule [c]	1,845	126	126	--	--	--	2.4
	Standby Generation Program	1,928	43	29	19	0	0	10.0
	Equipment Rebates	1,875	96	86	10	0	W	16.0
	Power Factor Correction or Improvement	1,850	121	43	83	0	Q	9.9
	U.S. EPA's Energy Star Program	1,971	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	1,939	32	--	--	32	--	3.1
	U.S. DOE's Motor Challenge Program	1,968	3	--	--	3	--	3.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	1,874	97	0	97	0	W	11.0
	Direct/Indirect Process Heating	1,848	123	Q	110	W	W	11.0
	Direct Process Cooling/Refrigeration	1,927	44	W	42	0	W	8.9
	Direct Machine Drive [e]	1,815	156	54	110	0	0	15.0
	Facility Heating, Ventilation, and Air Conditioning	1,937	34	W	33	0	0	11.8
	Facility Lighting	1,869	102	29	77	0	W	11.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	1,914	57	W	57	0	0	12.7
	Other [g]	1,964	7	W	5	0	0	7.6

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
2911	**Petroleum Refining**							
	Participation in One or More of the Following Types of Programs	107	140	80	123	15	24	2.3
	Energy Audits	139	108	24	92	3	19	3.0
	Electricity Load Control	175	72	17	60	0	4	3.6
	Special Rate Schedule[c]	191	56	56	--	--	--	1.4
	Standby Generation Program	218	29	16	19	0	0	3.8
	Equipment Rebates	218	29	24	5	0	W	5.4
	Power Factor Correction or Improvement	192	55	13	48	0	W	4.4
	U.S. EPA's Energy Star Program	247	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	235	12	--	--	12	--	1.7
	U.S. DOE's Motor Challenge Program	247	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production[d]	184	63	0	63	0	W	5.5
	Direct/Indirect Process Heating	179	68	W	67	0	W	5.5
	Direct Process Cooling/Refrigeration	214	33	W	32	0	W	5.5
	Direct Machine Drive[e]	190	57	8	53	0	0	3.6
	Facility Heating, Ventilation, and Air Conditioning	230	17	0	17	0	0	4.3
	Facility Lighting	214	33	8	27	0	0	3.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source[f]	223	24	W	24	0	0	5.1
	Other[g]	242	5	0	5	0	0	5.9
30	**RUBBER and MISC. PLASTICS PRODUCTS**							
	Participation in One or More of the Following Types of Programs	8,579	3,373	2,480	2,099	270	415	8.4
	Energy Audits	9,792	2,160	1,434	1,128	106	295	10.1
	Electricity Load Control	10,403	1,549	820	1,073	6	97	12.8
	Special Rate Schedule[c]	10,916	1,035	1,035	--	--	--	2.1
	Standby Generation Program	11,866	86	40	50	0	3	15.2
	Equipment Rebates	11,169	783	724	117	36	49	11.2
	Power Factor Correction or Improvement	10,602	1,350	780	814	W	88	13.8
	U.S. EPA's Energy Star Program	11,936	Q	--	--	Q	--	1.3
	U.S. EPA's Green Lights Program	11,853	99	--	--	99	--	2.4
	U.S. DOE's Motor Challenge Program	11,932	20	--	--	20	--	3.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production[d]	11,600	352	Q	314	W	12	15.5
	Direct/Indirect Process Heating	11,325	627	270	357	0	40	17.9
	Direct Process Cooling/Refrigeration	11,576	376	97	292	0	26	11.4
	Direct Machine Drive[e]	10,836	1,116	504	716	0	77	14.5
	Facility Heating, Ventilation, and Air Conditioning	11,175	777	222	561	38	50	11.7
	Facility Lighting	10,714	1,238	552	779	26	60	9.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source[f]	11,820	132	26	106	W	W	17.6
	Other[g]	11,927	25	W	9	3	W	13.7

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
3011	**Tires and Inner Tubes**							
	Participation in One or More of the Following Types of Programs	16	96	54	77	9	6	10.2
	Energy Audits	45	67	19	57	0	4	16.0
	Electricity Load Control	65	47	12	40	0	W	16.1
	Special Rate Schedule [c]	82	30	30	--	--	--	3.2
	Standby Generation Program	112	0	0	0	0	0	4.3
	Equipment Rebates	106	6	6	0	0	0	7.0
	Power Factor Correction or Improvement	79	33	13	29	0	0	15.1
	U.S. EPA's Energy Star Program	112	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.3
	U.S. DOE's Motor Challenge Program	112	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	76	36	W	31	0	W	14.4
	Direct/Indirect Process Heating	90	22	0	22	0	0	14.9
	Direct Process Cooling/Refrigeration	88	24	0	24	0	W	18.0
	Direct Machine Drive [e]	68	44	3	42	0	W	14.8
	Facility Heating, Ventilation, and Air Conditioning	70	42	W	40	0	3	16.0
	Facility Lighting	64	48	W	46	W	0	12.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	106	6	0	6	0	0	8.6
	Other [g]	W	W	0	0	W	0	6.1
308	**Miscellaneous Plastics Products, nec.**							
	Participation in One or More of the Following Types of Programs	7,182	2,785	2,104	1,653	227	275	8.5
	Energy Audits	8,168	1,799	1,250	906	82	169	10.5
	Electricity Load Control	8,732	1,235	668	857	3	45	12.5
	Special Rate Schedule [c]	9,077	890	890	--	--	--	2.2
	Standby Generation Program	9,889	78	39	43	0	3	15.9
	Equipment Rebates	9,263	704	646	102	36	38	11.3
	Power Factor Correction or Improvement	8,836	1,131	721	666	W	49	14.8
	U.S. EPA's Energy Star Program	9,951	Q	--	--	Q	--	1.3
	U.S. EPA's Green Lights Program	9,885	82	--	--	82	--	2.5
	U.S. DOE's Motor Challenge Program	9,947	20	--	--	20	--	3.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	9,785	182	32	154	0	3	17.9
	Direct/Indirect Process Heating	9,452	515	257	248	0	25	19.0
	Direct Process Cooling/Refrigeration	9,668	299	89	215	0	13	11.7
	Direct Machine Drive [e]	9,081	886	422	501	0	67	15.0
	Facility Heating, Ventilation, and Air Conditioning	9,365	602	198	409	38	44	12.8
	Facility Lighting	8,922	1,045	506	621	23	51	11.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	9,851	116	24	90	W	W	18.8
	Other [g]	9,943	24	W	9	W	W	16.2

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
31	**LEATHER and LEATHER PRODUCTS**							
	Participation in One or More of the Following Types of Programs	1,183	173	90	81	Q	49	22.6
	Energy Audits	1,214	142	72	50	Q	49	23.4
	Electricity Load Control	1,280	76	38	49	W	18	22.0
	Special Rate Schedule [c]	1,335	21	21	--	--	--	3.6
	Standby Generation Program	1,339	17	W	13	0	0	13.9
	Equipment Rebates	1,312	44	38	W	0	0	17.5
	Power Factor Correction or Improvement	1,319	37	25	14	0	W	18.9
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	3.5
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.5
	U.S. DOE's Motor Challenge Program	1,356	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	1,327	29	11	18	0	0	18.3
	Direct/Indirect Process Heating	1,327	29	6	23	0	0	15.6
	Direct Process Cooling/Refrigeration	1,317	39	14	25	0	0	24.4
	Direct Machine Drive [e]	1,331	25	8	18	0	0	17.7
	Facility Heating, Ventilation, and Air Conditioning	1,289	67	5	34	0	W	24.6
	Facility Lighting	1,273	83	30	27	0	W	21.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	1,330	26	0	26	0	0	19.8
	Other [g]	1,356	0	0	0	0	0	4.3
32	**STONE, CLAY and GLASS PRODUCTS**							
	Participation in One or More of the Following Types of Programs	9,733	2,133	1,350	1,085	151	411	14.5
	Energy Audits	10,749	1,117	609	592	Q	141	13.6
	Electricity Load Control	11,224	642	317	413	Q	52	10.7
	Special Rate Schedule [c]	11,355	511	511	--	--	--	2.2
	Standby Generation Program	11,708	158	69	105	0	3	18.8
	Equipment Rebates	11,097	770	597	54	W	Q	17.9
	Power Factor Correction or Improvement	11,411	455	170	337	W	15	12.6
	U.S. EPA's Energy Star Program	11,840	Q	--	--	Q	--	1.3
	U.S. EPA's Green Lights Program	11,809	58	--	--	58	--	3.5
	U.S. DOE's Motor Challenge Program	11,797	Q	--	--	Q	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	11,729	138	Q	Q	0	48	15.7
	Direct/Indirect Process Heating	11,558	308	Q	249	W	Q	9.4
	Direct Process Cooling/Refrigeration	11,761	105	Q	58	0	Q	15.2
	Direct Machine Drive [e]	11,258	609	215	407	W	50	13.6
	Facility Heating, Ventilation, and Air Conditioning	11,616	251	58	195	Q	16	16.1
	Facility Lighting	11,111	756	398	340	0	122	18.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	11,606	261	Q	Q	W	W	15.9
	Other [g]	11,819	47	Q	13	W	6	14.2

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
3211	**Flat Glass**							
	Participation in One or More of the Following Types of Programs	25	43	33	35	W	10	7.4
	Energy Audits	39	29	12	14	W	10	8.9
	Electricity Load Control	49	19	12	10	0	W	10.5
	Special Rate Schedule [c]	41	27	27	--	--	--	2.3
	Standby Generation Program	56	12	W	12	0	W	12.3
	Equipment Rebates	54	14	14	6	0	0	9.7
	Power Factor Correction or Improvement	56	12	6	10	0	0	9.4
	U.S. EPA's Energy Star Program	68	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	68	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	68	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	68	0	0	0	0	0	4.3
	Direct/Indirect Process Heating	62	6	0	6	0	0	10.8
	Direct Process Cooling/Refrigeration	62	6	0	6	0	W	12.9
	Direct Machine Drive [e]	47	21	4	19	0	W	10.7
	Facility Heating, Ventilation, and Air Conditioning	58	10	0	10	0	W	11.4
	Facility Lighting	49	19	4	14	0	W	11.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	68	0	0	0	0	0	4.3
	Other [g]	W	W	W	W	0	0	14.1
3221	**Glass Containers**							
	Participation in One or More of the Following Types of Programs	21	57	40	49	W	3	5.5
	Energy Audits	29	49	23	41	W	W	6.4
	Electricity Load Control	53	25	11	23	0	W	6.8
	Special Rate Schedule [c]	55	23	23	--	--	--	1.9
	Standby Generation Program	74	4	W	4	0	0	8.0
	Equipment Rebates	67	11	10	W	0	W	9.8
	Power Factor Correction or Improvement	62	16	3	14	0	0	7.0
	U.S. EPA's Energy Star Program	78	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	78	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	78	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	W	W	W	0	0	0	10.8
	Direct/Indirect Process Heating	74	4	0	3	0	W	9.8
	Direct Process Cooling/Refrigeration	78	0	0	0	0	0	4.3
	Direct Machine Drive [e]	46	32	8	29	0	W	7.4
	Facility Heating, Ventilation, and Air Conditioning	55	23	8	21	0	0	5.8
	Facility Lighting	46	32	16	26	0	W	6.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	W	W	0	0	11.1
	Other [g]	W	W	0	W	0	0	11.9

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
3229	**Pressed and Blown Glass, nec.**							
	Participation in One or More of the Following Types of Programs	135	28	20	24	5	0	29.4
	Energy Audits	144	19	5	14	4	0	28.6
	Electricity Load Control	152	11	4	10	0	0	27.4
	Special Rate Schedule [c]	151	12	12	--	--	--	4.1
	Standby Generation Program	156	7	W	4	0	0	25.2
	Equipment Rebates	156	7	7	0	0	0	19.4
	Power Factor Correction or Improvement	149	14	4	11	0	0	29.4
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	3.5
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.4
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	3.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	160	3	0	3	0	0	17.0
	Direct/Indirect Process Heating	158	5	0	5	0	0	21.8
	Direct Process Cooling/Refrigeration	157	6	W	6	0	0	26.0
	Direct Machine Drive [e]	148	15	5	14	W	0	30.1
	Facility Heating, Ventilation, and Air Conditioning	155	8	W	6	W	0	22.6
	Facility Lighting	152	11	5	10	0	0	26.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	19.5
	Other [g]	W	W	W	W	0	0	20.9
3241	**Cement, Hydraulic**							
	Participation in One or More of the Following Types of Programs	51	139	122	105	7	17	13.2
	Energy Audits	111	79	28	58	0	15	12.1
	Electricity Load Control	83	107	38	84	0	10	14.0
	Special Rate Schedule [c]	86	104	104	--	--	--	3.3
	Standby Generation Program	179	11	7	9	0	0	10.6
	Equipment Rebates	153	37	37	6	0	W	14.3
	Power Factor Correction or Improvement	135	55	29	30	0	W	14.0
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	3.1
	U.S. EPA's Green Lights Program	185	5	--	--	5	--	2.7
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	3.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	W	W	W	W	0	0	20.1
	Direct/Indirect Process Heating	157	33	0	33	0	0	11.2
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	14.3
	Direct Machine Drive [e]	103	87	31	73	0	W	14.2
	Facility Heating, Ventilation, and Air Conditioning	173	17	0	15	0	W	13.9
	Facility Lighting	137	53	18	44	0	W	13.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	179	11	0	11	W	0	9.9
	Other [g]	185	5	W	4	0	0	13.4

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
3274	**Lime**							
	Participation in One or More of the Following Types of Programs	53	31	24	22	3	W	14.3
	Energy Audits	68	16	12	5	0	0	15.0
	Electricity Load Control	62	22	14	12	0	W	16.3
	Special Rate Schedule [c]	72	12	12	--	--	--	3.0
	Standby Generation Program	80	4	W	3	0	0	22.3
	Equipment Rebates	80	4	3	W	0	0	22.3
	Power Factor Correction or Improvement	64	20	12	14	0	W	16.3
	U.S. EPA's Energy Star Program	84	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	84	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	81	3	--	--	3	--	3.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	84	0	0	0	0	0	4.3
	Direct/Indirect Process Heating	77	7	0	7	0	0	14.2
	Direct Process Cooling/Refrigeration	84	0	0	0	0	0	4.3
	Direct Machine Drive [e]	70	14	W	12	0	W	20.7
	Facility Heating, Ventilation, and Air Conditioning	81	3	0	3	0	0	19.9
	Facility Lighting	77	7	W	5	0	0	18.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	84	0	0	0	0	0	4.3
	Other [g]	84	0	0	0	0	0	4.3
3296	***Mineral Wool***							
	Participation in One or More of the Following Types of Programs	46	128	91	106	10	10	5.6
	Energy Audits	87	87	19	79	W	W	6.8
	Electricity Load Control	133	41	20	30	W	0	6.4
	Special Rate Schedule [c]	110	64	64	--	--	--	2.2
	Standby Generation Program	160	14	W	10	0	0	5.9
	Equipment Rebates	132	42	32	W	0	W	9.7
	Power Factor Correction or Improvement	141	33	12	26	0	0	6.6
	U.S. EPA's Energy Star Program	174	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	167	7	--	--	7	--	1.9
	U.S. DOE's Motor Challenge Program	174	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	164	10	W	W	0	0	9.2
	Direct/Indirect Process Heating	143	31	0	31	0	0	4.3
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	6.4
	Direct Machine Drive [e]	120	54	23	41	0	0	6.6
	Facility Heating, Ventilation, and Air Conditioning	145	29	W	29	0	0	5.9
	Facility Lighting	120	54	34	29	0	W	7.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	167	7	W	W	0	0	6.2
	Other [g]	164	10	W	W	0	W	11.6

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
33	**PRIMARY METAL INDUSTRIES**							
	Participation in One or More of the Following Types of Programs	3,347	1,824	1,237	1,298	142	265	8.4
	Energy Audits	4,091	1,080	470	644	50	193	9.1
	Electricity Load Control	4,206	965	410	695	Q	47	8.1
	Special Rate Schedule [c]	4,329	842	842	--	--	--	2.1
	Standby Generation Program	5,048	123	32	85	W	12	10.5
	Equipment Rebates	4,720	451	436	52	5	17	10.8
	Power Factor Correction or Improvement	4,561	610	239	453	5	29	10.7
	U.S. EPA's Energy Star Program	5,130	Q	--	--	Q	--	1.3
	U.S. EPA's Green Lights Program	5,137	34	--	--	34	--	2.1
	U.S. DOE's Motor Challenge Program	5,162	9	--	--	9	--	3.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	4,942	229	31	192	Q	23	13.8
	Direct/Indirect Process Heating	4,760	411	84	332	W	39	10.6
	Direct Process Cooling/Refrigeration	5,040	131	16	120	0	7	13.0
	Direct Machine Drive [e]	4,642	529	125	434	6	24	9.8
	Facility Heating, Ventilation, and Air Conditioning	4,801	370	59	312	W	31	10.3
	Facility Lighting	4,508	663	233	469	4	41	10.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	5,054	117	19	103	0	10	12.2
	Other [g]	5,123	48	9	33	10	3	14.9
331	**Blast Furnace and Basic Steel Products**							
	Participation in One or More of the Following Types of Programs	578	403	307	268	34	63	12.2
	Energy Audits	743	238	109	133	Q	36	14.0
	Electricity Load Control	769	212	91	150	0	17	10.7
	Special Rate Schedule [c]	767	214	214	--	--	--	2.5
	Standby Generation Program	947	34	9	23	0	W	9.3
	Equipment Rebates	903	78	75	3	W	W	16.3
	Power Factor Correction or Improvement	825	156	70	116	0	8	13.4
	U.S. EPA's Energy Star Program	978	3	--	--	3	--	2.7
	U.S. EPA's Green Lights Program	964	17	--	--	17	--	2.4
	U.S. DOE's Motor Challenge Program	975	6	--	--	6	--	3.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	912	69	3	57	0	15	13.4
	Direct/Indirect Process Heating	886	95	10	79	0	11	7.5
	Direct Process Cooling/Refrigeration	954	27	W	24	0	W	12.3
	Direct Machine Drive [e]	838	143	49	98	W	11	11.6
	Facility Heating, Ventilation, and Air Conditioning	915	66	6	55	0	9	9.4
	Facility Lighting	839	142	57	91	0	20	15.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	944	37	5	31	0	6	9.2
	Other [g]	966	15	4	6	W	W	14.6

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
3312	**Blast Furnaces and Steel Mills**							
	Participation in One or More of the Following Types of Programs	109	175	144	126	14	32	3.3
	Energy Audits	190	94	35	63	W	23	5.0
	Electricity Load Control	164	120	40	86	0	12	4.2
	Special Rate Schedule [c]	155	129	129	--	--	--	1.6
	Standby Generation Program	262	22	8	12	0	W	7.4
	Equipment Rebates	261	23	23	0	0	0	4.4
	Power Factor Correction or Improvement	210	74	28	55	0	3	4.6
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	2.8
	U.S. EPA's Green Lights Program	270	14	--	--	14	--	1.9
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	2.8
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	247	37	0	29	0	8	5.1
	Direct/Indirect Process Heating	223	61	6	51	0	8	5.2
	Direct Process Cooling/Refrigeration	275	9	0	9	0	0	6.4
	Direct Machine Drive [e]	223	61	11	45	W	9	5.4
	Facility Heating, Ventilation, and Air Conditioning	250	34	W	26	0	8	6.5
	Facility Lighting	236	48	6	35	0	11	5.2
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	262	22	3	17	0	5	7.0
	Other [g]	278	6	W	6	0	W	10.3
3313	**Electrometallurgical Products**							
	Participation in One or More of the Following Types of Programs	16	20	14	14	W	W	32.4
	Energy Audits	29	7	W	Q	0	0	40.8
	Electricity Load Control	22	14	7	9	0	W	39.8
	Special Rate Schedule [c]	25	11	11	--	--	--	5.1
	Standby Generation Program	36	0	0	0	0	0	4.3
	Equipment Rebates	W	W	W	0	0	0	25.7
	Power Factor Correction or Improvement	31	Q	Q	Q	0	W	42.8
	U.S. EPA's Energy Star Program	36	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.1
	U.S. DOE's Motor Challenge Program	36	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	36	0	0	0	0	0	4.3
	Direct/Indirect Process Heating	31	Q	0	Q	0	0	42.8
	Direct Process Cooling/Refrigeration	36	0	0	0	0	0	4.3
	Direct Machine Drive [e]	W	W	0	W	0	0	25.7
	Facility Heating, Ventilation, and Air Conditioning	32	Q	0	Q	0	0	34.2
	Facility Lighting	31	Q	W	Q	0	0	42.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	36	0	0	0	0	0	4.3
	Other [g]	36	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
3321	**Gray and Ductile Iron Foundries**							
	Participation in One or More of the Following Types of Programs	263	254	200	163	14	37	18.4
	Energy Audits	373	144	50	106	9	35	20.1
	Electricity Load Control	380	137	60	110	0	4	18.8
	Special Rate Schedule [c]	369	148	148	--	--	--	3.6
	Standby Generation Program	500	17	3	14	0	0	13.0
	Equipment Rebates	417	100	97	Q	0	0	19.9
	Power Factor Correction or Improvement	452	65	26	56	0	0	17.2
	U.S. EPA's Energy Star Program	517	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	514	3	--	--	3	--	2.9
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	3.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	494	Q	3	Q	0	0	26.1
	Direct/Indirect Process Heating	460	57	Q	47	0	0	21.1
	Direct Process Cooling/Refrigeration	512	5	0	5	0	0	16.4
	Direct Machine Drive [e]	462	55	9	48	0	0	16.5
	Facility Heating, Ventilation, and Air Conditioning	491	26	W	25	0	0	16.5
	Facility Lighting	463	54	11	45	0	0	13.5
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	511	6	0	6	0	0	13.9
	Other [g]	517	0	0	0	0	0	4.3
3331	**Primary Copper**							
	Participation in One or More of the Following Types of Programs	6	14	11	14	0	W	1.2
	Energy Audits	12	8	W	8	0	0	1.3
	Electricity Load Control	11	9	4	8	0	W	1.2
	Special Rate Schedule [c]	11	9	9	--	--	--	1.0
	Standby Generation Program	14	6	W	6	0	0	1.3
	Equipment Rebates	W	W	W	0	0	0	1.3
	Power Factor Correction or Improvement	13	7	0	7	0	W	1.3
	U.S. EPA's Energy Star Program	20	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	20	0	--	--	0	--	1.3
	U.S. DOE's Motor Challenge Program	20	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	W	W	0	W	0	0	1.5
	Direct/Indirect Process Heating	16	4	0	4	0	W	1.3
	Direct Process Cooling/Refrigeration	W	W	0	W	0	W	1.3
	Direct Machine Drive [e]	14	6	0	6	0	0	1.5
	Facility Heating, Ventilation, and Air Conditioning	16	4	0	4	0	W	1.3
	Facility Lighting	16	4	W	4	0	0	1.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	20	0	0	0	0	0	4.3
	Other [g]	W	W	0	W	0	0	1.5

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
3334	**Primary Aluminum**							
	Participation in One or More of the Following Types of Programs	17	27	15	24	5	0	10.2
	Energy Audits	29	15	0	14	W	0	15.3
	Electricity Load Control	26	18	4	14	W	0	9.6
	Special Rate Schedule [c]	30	14	14	--	--	--	4.1
	Standby Generation Program	W	W	0	W	0	0	6.9
	Equipment Rebates	W	W	W	0	0	0	6.2
	Power Factor Correction or Improvement	32	12	W	9	W	0	16.2
	U.S. EPA's Energy Star Program	44	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	2.2
	U.S. DOE's Motor Challenge Program	44	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	39	5	0	5	0	0	8.6
	Direct/Indirect Process Heating	36	8	0	8	0	0	9.9
	Direct Process Cooling/Refrigeration	W	W	0	W	0	0	6.9
	Direct Machine Drive [e]	31	13	0	13	0	0	25.7
	Facility Heating, Ventilation, and Air Conditioning	38	6	0	6	0	0	8.6
	Facility Lighting	36	8	W	8	0	0	9.4
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	6.9
	Other [g]	40	4	0	W	W	0	6.2
3339	**Primary Nonferrous Metals, nec.**							
	Participation in One or More of the Following Types of Programs	57	31	21	20	3	4	17.7
	Energy Audits	70	18	6	13	W	W	18.7
	Electricity Load Control	72	16	8	9	0	W	17.4
	Special Rate Schedule [c]	72	16	16	--	--	--	3.3
	Standby Generation Program	88	0	0	0	0	0	4.3
	Equipment Rebates	84	4	3	W	W	W	17.5
	Power Factor Correction or Improvement	80	8	W	7	0	0	15.2
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	3.2
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	3.2
	U.S. DOE's Motor Challenge Program	88	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	W	W	W	W	0	W	18.3
	Direct/Indirect Process Heating	78	10	W	8	0	W	19.9
	Direct Process Cooling/Refrigeration	W	W	W	0	0	0	13.8
	Direct Machine Drive [e]	77	11	4	7	0	W	19.7
	Facility Heating, Ventilation, and Air Conditioning	85	3	W	W	0	W	17.1
	Facility Lighting	79	9	3	5	0	W	20.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	W	W	0	W	0	0	15.2
	Other [g]	88	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
3353	**Aluminum Sheet, Plate, and Foil**							
	Participation in One or More of the Following Types of Programs	16	39	24	34	5	W	3.3
	Energy Audits	34	21	W	17	W	W	5.3
	Electricity Load Control	39	16	W	15	0	0	4.5
	Special Rate Schedule [c]	38	17	17	--	--	--	1.6
	Standby Generation Program	W	W	0	W	0	0	7.7
	Equipment Rebates	45	10	10	0	0	0	3.4
	Power Factor Correction or Improvement	38	17	W	16	W	0	5.0
	U.S. EPA's Energy Star Program	55	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	51	4	--	--	4	--	1.9
	U.S. DOE's Motor Challenge Program	55	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	W	W	0	W	W	0	6.6
	Direct/Indirect Process Heating	44	11	0	11	0	0	3.7
	Direct Process Cooling/Refrigeration	50	5	0	5	0	0	4.9
	Direct Machine Drive [e]	37	18	W	17	0	0	4.8
	Facility Heating, Ventilation, and Air Conditioning	48	7	0	7	0	0	4.3
	Facility Lighting	39	16	W	13	W	0	5.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	50	5	W	4	0	0	5.6
	Other [g]	55	0	0	0	0	0	4.3
34	**FABRICATED METAL PRODUCTS**							
	Participation in One or More of the Following Types of Programs	22,300	3,962	2,681	2,215	199	807	10.0
	Energy Audits	23,707	2,555	1,605	1,044	71	304	11.3
	Electricity Load Control	24,790	1,472	691	822	32	144	13.5
	Special Rate Schedule [c]	25,471	791	791	--	--	--	2.4
	Standby Generation Program	25,925	337	62	290	3	28	18.5
	Equipment Rebates	24,782	1,480	1,112	311	15	Q	16.3
	Power Factor Correction or Improvement	24,962	1,300	652	760	6	37	11.9
	U.S. EPA's Energy Star Program	26,252	10	--	--	10	--	3.3
	U.S. EPA's Green Lights Program	26,185	77	--	--	77	--	2.9
	U.S. DOE's Motor Challenge Program	26,249	13	--	--	13	--	2.6
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	25,789	473	38	408	15	81	18.5
	Direct/Indirect Process Heating	25,691	571	25	536	Q	63	17.6
	Direct Process Cooling/Refrigeration	25,916	346	35	317	W	Q	17.1
	Direct Machine Drive [e]	25,156	1,106	412	768	4	256	15.3
	Facility Heating, Ventilation, and Air Conditioning	25,198	1,064	220	890	Q	130	13.7
	Facility Lighting	24,328	1,934	1,003	973	9	264	12.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	25,936	326	23	298	W	29	20.0
	Other [g]	26,030	Q	Q	Q	W	Q	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
35	**INDUSTRIAL MACHINERY and EQUIPMENT**							
	Participation in One or More of the Following Types of Programs	28,630	5,207	3,199	3,346	320	736	9.2
	Energy Audits	30,452	3,385	1,962	1,688	120	512	11.8
	Electricity Load Control	31,787	2,049	773	1,576	23	78	11.4
	Special Rate Schedule [c]	32,859	978	978	--	--	--	2.5
	Standby Generation Program	33,536	301	32	278	8	8	19.7
	Equipment Rebates	32,537	1,300	1,271	76	Q	41	13.9
	Power Factor Correction or Improvement	32,534	1,303	640	711	0	119	14.4
	U.S. EPA's Energy Star Program	33,817	20	--	--	20	--	3.0
	U.S. EPA's Green Lights Program	33,686	151	--	--	151	--	2.6
	U.S. DOE's Motor Challenge Program	33,825	12	--	--	12	--	2.7
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	33,699	138	11	125	3	Q	13.1
	Direct/Indirect Process Heating	33,396	441	Q	260	W	Q	13.0
	Direct Process Cooling/Refrigeration	33,492	344	Q	178	4	48	17.6
	Direct Machine Drive [e]	33,138	698	118	641	14	24	14.4
	Facility Heating, Ventilation, and Air Conditioning	31,720	2,117	522	1,627	18	152	13.4
	Facility Lighting	31,769	2,068	1,174	1,099	31	131	11.1
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	33,402	435	27	412	0	Q	18.9
	Other [g]	33,770	67	Q	30	W	Q	16.6
357	**Computer and Office Equipment**							
	Participation in One or More of the Following Types of Programs	1,012	398	290	212	48	39	29.1
	Energy Audits	1,139	271	236	74	W	37	34.6
	Electricity Load Control	1,312	98	61	83	0	8	21.3
	Special Rate Schedule [c]	1,349	61	61	--	--	--	3.6
	Standby Generation Program	1,390	20	5	19	0	0	15.9
	Equipment Rebates	1,330	80	77	17	0	0	16.6
	Power Factor Correction or Improvement	1,383	27	8	25	0	W	15.0
	U.S. EPA's Energy Star Program	1,394	16	--	--	16	--	3.3
	U.S. EPA's Green Lights Program	1,372	38	--	--	38	--	2.9
	U.S. DOE's Motor Challenge Program	1,407	3	--	--	3	--	3.2
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	1,390	Q	W	Q	0	0	11.7
	Direct/Indirect Process Heating	1,402	8	0	8	0	0	14.9
	Direct Process Cooling/Refrigeration	1,391	19	5	18	0	4	17.1
	Direct Machine Drive [e]	1,381	29	12	26	0	4	16.9
	Facility Heating, Ventilation, and Air Conditioning	1,270	140	26	Q	0	4	31.9
	Facility Lighting	1,157	253	Q	66	10	Q	29.8
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	1,399	11	0	11	0	0	17.9
	Other [g]	1,410	0	0	0	0	0	4.3

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
36	**ELECTRONIC and OTHER ELECTRIC EQUIPMENT**							
	Participation in One or More of the Following Types of Programs	8,591	2,663	1,866	1,632	492	555	12.9
	Energy Audits	9,694	1,560	903	895	272	488	14.5
	Electricity Load Control	10,227	1,027	530	777	Q	Q	15.1
	Special Rate Schedule [c]	10,682	572	572	--	--	--	3.1
	Standby Generation Program	11,099	154	27	128	Q	29	15.2
	Equipment Rebates	10,347	907	877	Q	Q	Q	11.8
	Power Factor Correction or Improvement	10,698	556	285	312	Q	31	12.1
	U.S. EPA's Energy Star Program	11,105	Q	--	--	Q	--	1.3
	U.S. EPA's Green Lights Program	10,864	390	--	--	390	--	3.5
	U.S. DOE's Motor Challenge Program	11,127	Q	--	--	Q	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	10,886	368	Q	180	3	36	20.4
	Direct/Indirect Process Heating	10,680	574	118	461	Q	42	21.9
	Direct Process Cooling/Refrigeration	10,953	301	38	265	0	31	15.5
	Direct Machine Drive [e]	10,790	463	227	262	0	52	13.8
	Facility Heating, Ventilation, and Air Conditioning	10,550	704	189	546	0	64	14.9
	Facility Lighting	9,997	1,257	770	558	31	82	15.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	11,137	117	34	75	0	25	16.6
	Other [g]	11,088	Q	Q	Q	W	Q	4.3
37	**TRANSPORTATION EQUIPMENT**							
	Participation in One or More of the Following Types of Programs	5,848	1,392	851	961	130	271	13.7
	Energy Audits	6,396	844	385	484	49	193	12.5
	Electricity Load Control	6,805	435	190	293	Q	69	10.9
	Special Rate Schedule [c]	6,927	313	313	--	--	--	2.4
	Standby Generation Program	7,164	76	19	58	W	8	10.9
	Equipment Rebates	6,932	308	294	45	W	12	12.2
	Power Factor Correction or Improvement	6,835	405	171	278	3	45	13.0
	U.S. EPA's Energy Star Program	7,216	24	--	--	24	--	3.1
	U.S. EPA's Green Lights Program	7,175	65	--	--	65	--	2.6
	U.S. DOE's Motor Challenge Program	7,230	10	--	--	10	--	2.5
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	7,106	134	24	98	Q	8	15.1
	Direct/Indirect Process Heating	7,049	191	28	177	3	9	15.5
	Direct Process Cooling/Refrigeration	7,136	104	28	78	3	8	12.7
	Direct Machine Drive [e]	6,979	261	93	208	3	31	12.7
	Facility Heating, Ventilation, and Air Conditioning	6,778	462	91	347	10	Q	17.6
	Facility Lighting	6,498	742	251	555	12	116	19.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	7,103	137	11	132	4	6	15.3
	Other [g]	7,220	20	6	16	5	Q	17.8

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
3711	**Motor Vehicles and Car Bodies**							
	Participation in One or More of the Following Types of Programs	Q	Q	Q	Q	W	W	0.0
	Energy Audits	304	Q	Q	Q	0	W	25.7
	Electricity Load Control	310	Q	Q	Q	0	W	17.1
	Special Rate Schedule [c]	314	Q	Q	--	--	--	1.5
	Standby Generation Program	W	W	W	W	0	0	4.3
	Equipment Rebates	314	Q	Q	W	0	0	12.8
	Power Factor Correction or Improvement	310	Q	Q	Q	0	W	17.1
	U.S. EPA's Energy Star Program	322	0	--	--	0	--	1.3
	U.S. EPA's Green Lights Program	W	W	--	--	W	--	1.3
	U.S. DOE's Motor Challenge Program	322	0	--	--	0	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	314	Q	W	Q	0	W	12.8
	Direct/Indirect Process Heating	317	Q	0	Q	0	0	8.6
	Direct Process Cooling/Refrigeration	318	Q	0	Q	0	0	8.6
	Direct Machine Drive [e]	312	Q	W	Q	0	0	17.1
	Facility Heating, Ventilation, and Air Conditioning	253	Q	W	Q	0	0	192.7
	Facility Lighting	294	Q	Q	Q	0	0	59.9
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	319	Q	W	Q	0	0	4.3
	Other [g]	322	0	0	0	0	0	4.3
3714	**Motor Vehicle Parts and Accessories**							
	Participation in One or More of the Following Types of Programs	1,453	609	348	383	40	161	21.8
	Energy Audits	1,744	318	113	140	23	126	19.3
	Electricity Load Control	1,875	187	89	122	Q	17	17.3
	Special Rate Schedule [c]	1,942	120	120	--	--	--	3.0
	Standby Generation Program	2,033	29	6	20	0	6	16.2
	Equipment Rebates	1,936	126	124	22	0	W	22.3
	Power Factor Correction or Improvement	1,920	142	55	107	W	Q	15.4
	U.S. EPA's Energy Star Program	2,052	Q	--	--	Q	--	1.3
	U.S. EPA's Green Lights Program	2,045	17	--	--	17	--	3.0
	U.S. DOE's Motor Challenge Program	2,058	4	--	--	4	--	3.0
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	2,016	46	Q	38	W	3	16.0
	Direct/Indirect Process Heating	2,015	47	7	40	W	6	15.9
	Direct Process Cooling/Refrigeration	2,019	43	6	34	W	5	16.5
	Direct Machine Drive [e]	1,940	122	58	85	0	6	17.5
	Facility Heating, Ventilation, and Air Conditioning	1,874	188	37	98	W	Q	22.2
	Facility Lighting	1,674	388	137	259	Q	Q	32.3
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	2,035	27	3	26	0	5	15.6
	Other [g]	2,048	14	W	11	W	Q	20.7

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
38	***INSTRUMENTS and RELATED PRODUCTS***							
	Participation in One or More of the Following Types of Programs	5,531	1,529	1,073	1,017	184	160	12.0
	Energy Audits	5,964	1,095	734	636	64	114	13.6
	Electricity Load Control	6,418	642	234	554	14	46	13.5
	Special Rate Schedule[c]	6,767	293	293	--	--	--	3.3
	Standby Generation Program	6,937	123	52	90	3	5	15.2
	Equipment Rebates	6,409	651	614	265	W	27	16.1
	Power Factor Correction or Improvement	6,851	208	94	160	W	12	11.9
	U.S. EPA's Energy Star Program	7,038	21	--	--	21	--	2.8
	U.S. EPA's Green Lights Program	6,941	118	--	--	118	--	2.4
	U.S. DOE's Motor Challenge Program	7,046	14	--	--	14	--	3.1
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production[d]	6,949	111	5	104	0	11	17.6
	Direct/Indirect Process Heating	6,967	92	11	88	0	16	13.7
	Direct Process Cooling/Refrigeration	6,920	139	40	113	0	12	13.0
	Direct Machine Drive[e]	6,774	286	122	242	0	18	13.0
	Facility Heating, Ventilation, and Air Conditioning	6,328	732	268	606	0	56	17.7
	Facility Lighting	6,385	675	343	417	W	46	12.6
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source[f]	6,990	70	Q	35	0	8	14.5
	Other[g]	7,037	22	W	12	10	3	18.8
3841	**Surgical and Medical Instruments**							
	Participation in One or More of the Following Types of Programs	712	166	128	68	20	25	24.6
	Energy Audits	741	137	Q	36	Q	13	28.0
	Electricity Load Control	827	51	15	37	3	5	17.9
	Special Rate Schedule[c]	855	23	23	--	--	--	2.9
	Standby Generation Program	874	4	3	3	0	0	17.3
	Equipment Rebates	832	46	34	9	0	9	21.7
	Power Factor Correction or Improvement	854	24	6	19	0	W	17.7
	U.S. EPA's Energy Star Program	W	W	--	--	W	--	3.4
	U.S. EPA's Green Lights Program	870	8	--	--	8	--	2.9
	U.S. DOE's Motor Challenge Program	W	W	--	--	W	--	3.4
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production[d]	872	6	W	4	0	W	19.3
	Direct/Indirect Process Heating	869	9	0	9	0	W	16.5
	Direct Process Cooling/Refrigeration	865	13	3	10	0	W	17.3
	Direct Machine Drive[e]	864	14	6	7	0	W	17.6
	Facility Heating, Ventilation, and Air Conditioning	836	42	12	27	0	10	19.1
	Facility Lighting	827	51	24	28	0	8	18.7
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source[f]	W	W	0	0	0	W	15.9
	Other[g]	873	5	0	W	W	W	16.5

See footnotes at end of table.

Table A24. Number of Establishments by Total Inputs of Energy for Heat, Power, and Electricity Generation, by Program Sponsorship, Industry Group, Selected Industries, and Type of Energy-Management Program, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	No Energy Management Program	Type of Sponsorship of Management Programs (1992 through 1994)					RSE Row Factors
			Any Type of Sponsorship[b]	Electric Utility Sponsored Involvement	Self-Sponsored Involvement	Federal, State, or Local Government Sponsored Involvement	Third Party Sponsored Involvement	
	RSE Column Factors:	0.2	1.4	1.3	0.9	2.2	1.2	
39	**MISC. MANUFACTURING INDUSTRIES**							
	Participation in One or More of the Following Types of Programs	8,924	1,070	647	600	273	218	16.9
	Energy Audits	9,552	443	297	172	55	122	15.1
	Electricity Load Control	9,661	333	221	122	9	25	14.6
	Special Rate Schedule [c]	9,880	114	114	--	--	--	2.5
	Standby Generation Program	9,965	29	19	10	W	0	16.9
	Equipment Rebates	9,545	449	395	37	Q	82	22.4
	Power Factor Correction or Improvement	9,718	276	218	70	9	33	17.4
	U.S. EPA's Energy Star Program	9,991	3	--	--	3	--	2.9
	U.S. EPA's Green Lights Program	9,808	Q	--	--	Q	--	1.6
	U.S. DOE's Motor Challenge Program	9,964	Q	--	--	Q	--	1.3
	Equipment Installation or Retrofit for the **Primary** Purpose of Improving Energy Efficiency Affecting:							
	Steam Production [d]	9,958	36	10	30	W	W	13.3
	Direct/Indirect Process Heating	9,932	62	18	45	W	Q	15.9
	Direct Process Cooling/Refrigeration	9,928	66	22	45	W	Q	13.0
	Direct Machine Drive [e]	9,870	124	73	84	9	W	16.6
	Facility Heating, Ventilation, and Air Conditioning	9,826	168	46	153	9	Q	18.0
	Facility Lighting	9,336	658	251	395	Q	Q	16.0
	Equipment Installation/Retrofit for the **Primary** Purpose of Using a Different Energy Source [f]	9,921	73	10	63	0	W	21.4
	Other [g]	W	W	0	W	0	0	15.5

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] For example, interruptible or time-of-use rates.
[d] For example, boilers, burners, and nozzles.
[e] For example, adjustable-speed drives, motors, and pumps.
[f] For example, electrification of a subset of the manufacturing operation.
[g] Included are improvements in operating procedures and other energy-management programs reported by respondents.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
-- Estimation is not applicable.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • "Sponsorship" is determined by the respondent. • EPA = Environmental Protection Agency. • DOE = Department of Energy.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A25. Number of Establishments by Sponsorship of Any Programs of Demand-Side Management through Electric Utility and Natural Gas Utility, by Industry Group and Selected Industries, 1994

SIC Code[a]	Industry Group and Industry	Total	Any Programs of DSM Sponsored through Electric Utility[b]			Any Programs of DSM Sponsored through Natural Gas Utility[c]			RSE Row Factors
			Sponsored	Not Sponsored	Don't Know	Sponsored	Not Sponsored	Don't Know	
	RSE Column Factors:	0.2	1.2	1.5	1.3	1.8	1.3	1.2	
20	Food and Kindred Products	14,698	5,084	3,263	5,475	2,825	4,137	6,445	5.8
2011	*Meat Packing Plants*	759	326	138	288	120	233	231	12.8
2033	*Canned Fruits and Vegetables*	531	218	147	158	170	189	168	10.7
2037	*Frozen Fruits and Vegetables*	232	Q	Q	Q	Q	137	Q	13.7
2046	*Wet Corn Milling*	58	24	21	10	11	24	20	6.2
2051	*Bread, Cake, and Related Products*	1,303	272	328	647	227	242	766	11.8
2061	*Cane Sugar, Except Refining*	43	8	15	18	4	18	17	5.8
2062	*Cane Sugar Refining*	20	8	5	6	0	11	5	11.4
2063	*Beet Sugar*	41	17	10	10	8	10	16	2.3
2075	*Soybean Oil Mills*	95	41	20	30	26	36	29	1.1
2082	*Malt Beverages*	140	105	32	W	65	55	16	6.9
21	Tobacco Products	121	67	27	27	49	38	30	6.1
22	Textile Mill Products	4,428	1,291	956	1,731	499	1,237	1,655	10.6
23	Apparel and Other Textile Products	18,019	2,896	4,198	7,906	1,334	4,247	7,579	7.8
24	Lumber and Wood Products	21,623	3,634	6,745	8,695	863	5,580	10,421	6.1
2421	*Sawmills and Planing Mills, General*	3,545	763	1,150	929	78	992	963	10.3
2436	*Softwood Veneer and Plywood*	182	46	52	63	W	62	73	7.6
2493	*Reconstituted Wood Products*	246	54	Q	146	13	70	155	22.9
25	Furniture and Fixtures	7,691	1,366	2,113	3,364	875	1,771	3,638	8.7
2511	*Wood Furniture, Except Upholstered*	1,548	292	483	629	Q	433	680	16.4
26	Paper and Allied Products	5,582	1,890	1,393	2,028	840	1,842	2,318	6.2
2611	*Pulp Mills*	55	36	9	10	21	12	21	4.5
2621	*Paper Mills*	310	196	60	46	82	116	73	2.5
2631	*Paperboard Mills*	219	136	43	36	69	86	51	1.7
27	Printing and Publishing	37,384	6,106	9,872	16,142	3,153	8,920	16,789	5.5
28	Chemicals and Allied Products	9,565	3,623	3,048	2,611	1,571	3,061	3,712	6.4
2812	*Alkalies and Chlorine*	44	23	9	13	4	15	20	3.0
2813	*Industrial Gases*	623	309	145	76	23	112	342	6.7
2816	*Inorganic Pigments*	81	28	17	34	23	17	35	2.9
2819	*Industrial Inorganic Chemicals, nec.*	568	251	89	203	116	178	237	10.9
2821	*Plastics Materials and Resins*	456	227	101	114	91	188	158	7.3
2822	*Synthetic Rubber*	63	36	15	11	14	21	24	6.9
2823	*Cellulosic Manmade Fibers*	11	4	4	0	3	3	3	1.0
2824	*Organic Fibers, Noncellulosic*	73	51	11	11	13	32	23	3.1
2861	*Gum and Wood Chemicals*	60	6	26	22	W	27	21	3.3
2865	*Cyclic Crudes and Intermediates*	187	81	34	68	57	66	53	9.2
2869	*Industrial Organic Chemicals, nec.*	631	227	237	144	95	243	217	9.9
2873	*Nitrogenous Fertilizers*	118	33	29	52	16	34	44	4.5
2874	*Phosphatic Fertilizers*	69	30	14	25	13	19	35	2.0
2895	*Carbon Black*	23	5	9	9	4	9	10	5.9
29	Petroleum and Coal Products	1,971	388	492	1,025	230	488	1,144	8.6
2911	*Petroleum Refining*	247	99	53	84	45	103	83	2.0
30	Rubber and Misc. Plastics Products	11,952	3,828	2,106	5,430	1,474	3,118	6,134	5.7
3011	*Tires and Inner Tubes*	112	79	13	17	35	44	30	10.0
308	*Miscellaneous Plastics Products, nec.*	9,967	2,990	1,866	4,620	1,047	2,751	5,223	6.0
31	Leather and Leather Products	1,356	411	330	543	61	594	587	15.2
32	Stone, Clay and Glass Products	11,970	2,233	3,946	4,586	1,048	4,297	4,622	7.9
3211	*Flat Glass*	68	37	12	16	23	23	21	5.2
3221	*Glass Containers*	78	37	16	25	16	27	35	3.5
3229	*Pressed and Blown Glass, nec.*	163	33	28	101	20	82	Q	21.2
3241	*Cement, Hydraulic*	190	116	25	45	38	54	79	9.1
3274	*Lime*	84	31	23	20	14	33	26	7.5
3296	*Mineral Wool*	174	116	20	34	55	59	52	4.7
33	Primary Metal Industries	5,171	2,171	1,164	1,523	1,213	1,762	1,680	6.4
331	*Blast Furnace and Basic Steel Products*	981	518	156	215	194	378	293	10.3
3312	*Blast Furnaces and Steel Mills*	284	170	35	75	91	89	96	2.7
3313	*Electrometallurgical Products*	36	20	9	Q	7	18	Q	16.8
3321	*Gray and Ductile Iron Foundries*	517	271	148	56	139	215	98	12.8
3331	*Primary Copper*	20	9	W	7	W	6	11	1.0
3334	*Primary Aluminum*	44	18	16	7	15	17	10	8.3
3339	*Primary Nonferrous Metals, nec.*	88	29	30	27	12	38	31	13.6
3353	*Aluminum Sheet, Plate, and Foil*	55	29	13	11	17	18	17	2.6

See footnotes at end of table.

Table A25. Number of Establishments by Sponsorship of Any Programs of Demand-Side Management through Electric Utility and Natural Gas Utility, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Total	Any Programs of DSM Sponsored through Electric Utility[b]			Any Programs of DSM Sponsored through Natural Gas Utility[c]			RSE Row Factors
			Sponsored	Not Sponsored	Don't Know	Sponsored	Not Sponsored	Don't Know	
	RSE Column Factors:	0.2	1.2	1.5	1.3	1.8	1.3	1.2	
34	Fabricated Metal Products	26,262	5,692	6,555	12,308	3,150	6,416	13,526	6.0
35	Industrial Machinery and Equipment	33,837	6,661	9,357	14,248	2,975	10,488	14,848	5.5
357	*Computer and Office Equipment*	1,410	489	225	641	Q	432	440	18.1
36	Electronic and Other Electric Equipment	11,264	3,529	2,790	3,837	1,068	3,284	5,337	8.1
37	Transportation Equipment	7,240	1,718	1,750	3,402	875	1,768	3,700	9.5
3711	*Motor Vehicles and Car Bodies*	322	Q	Q	Q	Q	Q	Q	6.4
3714	*Motor Vehicle Parts and Accessories*	2,062	587	646	794	328	635	930	14.2
38	Instruments and Related Products	7,071	1,873	1,278	3,543	768	1,662	4,005	9.6
3841	*Surgical and Medical Instruments*	878	209	198	467	58	190	585	16.4
39	Misc. Manufacturing Industries	9,994	2,005	2,324	4,939	717	2,481	5,434	8.8
	Total	247,199	56,468	63,705	103,361	25,588	67,193	113,604	2.4

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] Demand-Side Management programs offered by electric utilities are designed to: lower energy consumption or costs, or shift the timing of electricity demand, or promote the use of electricity instead of another energy source.

[c] Demand-Side Management programs offered by natural gas utilities are designed to: lower energy consumption or costs, or shift the timing of natural gas demand, or promote the use of natural gas instead of another energy source.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • DSM = demand-side management.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A26. Total Inputs of Energy for Heat, Power, and Electricity Generation by Employment Size Categories and Presence of General Technologies and Cogeneration Technologies, 1994

(Estimates in Trillion Btu)

General/Cogeneration Technologies	Total	Employment Size[a]						RSE Row Factors
		Under 50	50-99	100-249	250-499	500-999	1,000 and Over	
RSE Column Factors:	0.5	2.0	2.1	1.0	0.7	0.7	0.9	
One or More General Technologies Present	14,601	387	781	2,054	2,728	3,189	5,462	3.1
Computer Control of Building Environment [b]	5,079	64	116	510	802	1,227	2,361	5.0
Computer Control of Processes or Major Energy-Using Equipment [c]	12,139	218	470	1,554	2,287	2,872	4,738	3.0
Waste Heat Recovery	9,908	113	388	1,062	1,752	2,224	4,370	4.5
Adjustable-Speed Motors	11,308	218	508	1,503	1,980	2,576	4,524	3.1
None Present	1,914	358	273	472	263	245	303	5.3
Total	16,515	745	1,054	2,526	2,991	3,435	5,764	2.8
One or More Cogeneration Technologies Present	7,837	44	133	583	1,369	1,775	3,934	4.5
Steam Turbines Supplied by Either Conventional or Fluidized Bed Boilers	6,737	27	97	400	1,104	1,553	3,557	4.9
Conventional Combustion Turbines with Heat Recovery	2,501	8	43	139	340	421	1,549	9.3
Combined-Cycle Combustion Turbines	1,130	0	5	20	127	193	784	11.8
Internal Combustion Engines with Heat Recovery	132	4	6	15	22	52	33	16.6
Steam Turbines Supplied by Heat Recovered from High-Temperature Processes	3,315	28	55	249	568	735	1,681	7.3
None Present	8,678	702	921	1,943	1,622	1,660	1,831	3.1
Total	16,515	745	1,054	2,526	2,991	3,435	5,764	2.8

[a] *Employment Size categories were supplied by the Bureau of the Census. See Appendix B.*
[b] For example, space-heating equipment, cooling equipment, lights.
[c] For example, boilers, furnaces, conveyers.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey", and Bureau of the Census, Industry Division, data files for the "1994 Annual Survey of Manufactures."

Table A27. Total Inputs of Energy for Heat, Power, and Electricity Generation by Value of Shipment Categories and Presence of General Technologies and Cogeneration Technologies, 1994

(Estimates in Trillion Btu)

General/Cogeneration Technologies	Total	Value of Shipments and Receipts[a] (million dollars)						RSE Row Factors
		Under 20	20-49	50-99	100-249	250-499	500 and Over	
RSE Column Factors:	0.6	1.6	1.4	1.1	0.8	0.9	0.9	
One or More General Technologies Present	14,601	815	1,247	1,342	2,470	2,617	6,110	2.8
Computer Control of Building Environment [b]	5,079	139	239	303	719	937	2,743	4.2
Computer Control of Processes or Major Energy-Using Equipment [c]	12,139	421	785	1,020	2,120	2,315	5,479	2.8
Waste Heat Recovery	9,908	228	482	642	1,486	1,876	5,194	3.9
Adjustable-Speed Motors	11,308	557	851	1,019	1,902	2,070	4,909	2.9
None Present	1,914	685	357	278	153	128	313	4.9
Total	16,515	1,500	1,603	1,620	2,624	2,745	6,423	2.5
One or More Cogeneration Technologies Present	7,837	75	173	331	1,169	1,735	4,353	4.0
Steam Turbines Supplied by Either Conventional or Fluidized Bed Boilers	6,737	51	110	212	1,041	1,530	3,793	4.4
Conventional Combustion Turbines with Heat Recovery	2,501	9	29	35	284	284	1,861	8.1
Combined-Cycle Combustion Turbines	1,130	3	W	W	105	93	922	12.6
Internal Combustion Engines with Heat Recovery	132	11	W	W	32	51	20	14.9
Steam Turbines Supplied by Heat Recovered from High-Temperature Processes	3,315	14	76	113	271	532	2,309	7.7
None Present	8,678	1,425	1,430	1,289	1,454	1,010	2,070	2.8
Total	16,515	1,500	1,603	1,620	2,624	2,745	6,423	2.5

[a] Value of Shipments and Receipts categories were supplied by the Bureau of the Census. See Appendix B.
[b] For example, space-heating equipment, cooling equipment, lights.
[c] For example, boilers, furnaces, conveyers.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey", and Bureau of the Census, Industry Division, data files for the "1994 Annual Survey of Manufactures."

Table A28. Percent of Establishments that Actually Switched Fuels from Natural Gas to Residual Fuel Oil and from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994

SIC Code[a]	Industry Group and Industry	Establishments Able to Switch Both Ways[b] (counts)	Types of Actual Switching: No Actual Switching between NG and RFO	Types of Actual Switching: Switched One-Way Only NG --> RFO	Types of Actual Switching: Switched One-Way Only NG <-- RFO	Types of Actual Switching: Switched Both Ways NG <--> RFO	RSE Row Factors
	RSE Column Factors:	0.6	1.2	1.5	1.9	0.4	
20	Food and Kindred Products	237	13.7	W	W	83.2	9.7
2011	*Meat Packing Plants*	15	W	W	0.0	52.8	26.7
2033	*Canned Fruits and Vegetables*	26	0.0	0.0	0.0	100.0	31.1
2037	*Frozen Fruits and Vegetables*	Q	W	W	0.0	W	34.6
2046	*Wet Corn Milling*	W	0.0	0.0	0.0	100.0	51.3
2051	*Bread, Cake, and Related Products*	5	0.0	0.0	0.0	100.0	59.1
2061	*Cane Sugar, Except Refining*	0	0.0	0.0	0.0	0.0	0.0
2062	*Cane Sugar Refining*	W	0.0	0.0	0.0	100.0	42.0
2063	*Beet Sugar*	10	W	0.0	W	55.6	5.1
2075	*Soybean Oil Mills*	12	W	W	0.0	60.0	1.6
2082	*Malt Beverages*	32	W	0.0	0.0	W	24.4
21	Tobacco Products	26	28.6	0.0	0.0	71.4	25.2
22	Textile Mill Products	214	25.0	W	W	64.5	22.2
23	Apparel and Other Textile Products	12	0.0	0.0	0.0	100.0	59.1
24	Lumber and Wood Products	W	0.0	0.0	0.0	100.0	73.1
2421	*Sawmills and Planing Mills, General*	0	0.0	0.0	0.0	0.0	0.0
2436	*Softwood Veneer and Plywood*	0	0.0	0.0	0.0	0.0	0.0
2493	*Reconstituted Wood Products*	W	0.0	0.0	0.0	100.0	73.1
25	Furniture and Fixtures	W	100.0	0.0	0.0	0.0	54.4
2511	*Wood Furniture, Except Upholstered*	0	0.0	0.0	0.0	0.0	0.0
26	Paper and Allied Products	159	19.0	12.1	3.3	65.7	8.0
2611	*Pulp Mills*	10	0.0	33.3	0.0	66.7	15.2
2621	*Paper Mills*	56	22.7	W	W	61.4	8.2
2631	*Paperboard Mills*	57	20.6	W	W	69.3	4.4
27	Printing and Publishing	10	0.0	0.0	0.0	100.0	23.3
28	Chemicals and Allied Products	204	15.1	9.1	0.0	75.8	16.6
2812	*Alkalies and Chlorine*	W	100.0	0.0	0.0	0.0	18.7
2813	*Industrial Gases*	0	0.0	0.0	0.0	0.0	0.0
2816	*Inorganic Pigments*	5	W	W	0.0	50.0	14.5
2819	*Industrial Inorganic Chemicals, nec.*	9	W	0.0	0.0	W	16.9
2821	*Plastics Materials and Resins*	35	W	W	0.0	89.6	20.9
2822	*Synthetic Rubber*	6	0.0	0.0	0.0	100.0	28.0
2823	*Cellulosic Manmade Fibers*	0	0.0	0.0	0.0	0.0	0.0
2824	*Organic Fibers, Noncellulosic*	18	W	0.0	0.0	W	7.3
2861	*Gum and Wood Chemicals*	W	0.0	0.0	0.0	100.0	18.7
2865	*Cyclic Crudes and Intermediates*	24	23.9	0.0	0.0	76.1	17.0
2869	*Industrial Organic Chemicals, nec.*	28	39.5	0.0	0.0	60.5	36.3
2873	*Nitrogenous Fertilizers*	0	0.0	0.0	0.0	0.0	0.0
2874	*Phosphatic Fertilizers*	W	0.0	0.0	0.0	100.0	12.4
2895	*Carbon Black*	0	0.0	0.0	0.0	0.0	0.0
29	Petroleum and Coal Products	58	W	0.0	W	72.8	21.7
2911	*Petroleum Refining*	36	W	0.0	W	66.7	6.4
30	Rubber and Misc. Plastics Products	131	W	3.5	W	78.0	30.0
3011	*Tires and Inner Tubes*	30	W	W	0.0	90.3	10.0
308	*Miscellaneous Plastics Products, nec.*	73	Q	Q	0.0	85.4	37.9
31	Leather and Leather Products	Q	0.0	W	0.0	W	9.8
32	Stone, Clay and Glass Products	27	29.9	W	W	59.0	27.7
3211	*Flat Glass*	0	0.0	0.0	0.0	0.0	0.0
3221	*Glass Containers*	7	W	0.0	0.0	W	14.2
3229	*Pressed and Blown Glass, nec.*	0	0.0	0.0	0.0	0.0	0.0
3241	*Cement, Hydraulic*	5	0.0	0.0	W	W	27.6
3274	*Lime*	W	0.0	0.0	0.0	100.0	76.2
3296	*Mineral Wool*	W	100.0	0.0	0.0	0.0	14.0
33	Primary Metal Industries	44	25.8	6.8	0.0	67.3	14.5
331	*Blast Furnace and Basic Steel Products*	23	20.3	13.2	0.0	66.5	13.6
3312	*Blast Furnaces and Steel Mills*	15	W	W	0.0	60.0	14.3
3313	*Electrometallurgical Products*	0	0.0	0.0	0.0	0.0	0.0
3321	*Gray and Ductile Iron Foundries*	Q	W	0.0	0.0	W	63.5
3331	*Primary Copper*	W	100.0	0.0	0.0	0.0	1.6
3334	*Primary Aluminum*	W	100.0	0.0	0.0	0.0	15.5
3339	*Primary Nonferrous Metals, nec.*	W	0.0	0.0	0.0	100.0	51.3
3353	*Aluminum Sheet, Plate, and Foil*	0	0.0	0.0	0.0	0.0	0.0
34	Fabricated Metal Products	34	W	0.0	W	65.3	45.8
35	Industrial Machinery and Equipment	23	W	W	0.0	80.5	27.1
357	*Computer and Office Equipment*	0	0.0	0.0	0.0	0.0	0.0
36	Electronic and Other Electric Equipment	27	W	W	0.0	74.8	30.0

See footnotes at end of table.

Table A28. Percent of Establishments that Actually Switched Fuels from Natural Gas to Residual Fuel Oil and from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Establishments Able to Switch Both Ways[b] (counts)	Types of Actual Switching: No Actual Switching between NG and RFO	Switched One-Way Only NG --> RFO	Switched One-Way Only NG <-- RFO	Switched Both Ways NG <--> RFO	RSE Row Factors
	RSE Column Factors:	0.6	1.2	1.5	1.9	0.4	
37	Transportation Equipment	20	W	W	0.0	75.5	20.6
3711	*Motor Vehicles and Car Bodies*	W	0.0	100.0	0.0	0.0	0.0
3714	*Motor Vehicle Parts and Accessories*	5	0.0	0.0	0.0	100.0	49.7
38	Instruments and Related Products	16	33.3	0.0	0.0	66.7	18.8
3841	*Surgical and Medical Instruments*	0	0.0	0.0	0.0	0.0	0.0
39	Misc. Manufacturing Industries	11	0.0	0.0	0.0	100.0	38.9
	Total	1,270	19.0	7.0	1.0	73.0	7.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Establishment percents may not equal 100 percent because of unknown and/or unreported fuel-switching activity. • NG = natural gas. • RFO = residual fuel oil. • NG --> RFO denotes switching from NG to RFO. • NG <-- RFO denotes switching from RFO to NG. • NG <--> RFO denotes switching both ways, from NG to RFO and from RFO to NG.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A29. Capability to Switch from Natural Gas to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1

(Estimates in Billion Cubic Feet)

SIC Code[a]	Industry Group and Industry	Natural Gas			Alternative Types of Energy[b]							RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.5	0.6	0.6	1.6	0.8	0.8	1.7	0.9	2.7	1.5	
20	Food and Kindred Products	611	236	272	13	116	81	9	62	1	6	7.4
2011	*Meat Packing Plants*	35	19	13	*	10	4	0	7	0	1	16.0
2033	*Canned Fruits and Vegetables*	42	17	19	3	8	9	Q	3	*	Q	17.9
2037	*Frozen Fruits and Vegetables*	27	8	15	*	5	5	0	1	0	*	19.6
2046	*Wet Corn Milling*	67	22	42	3	19	2	2	*	0	0	28.5
2051	*Bread, Cake, and Related Products*	26	6	18	*	1	*	0	5	0	*	27.8
2061	*Cane Sugar, Except Refining*	2	*	1	0	*	0	0	0	0	0	30.3
2062	*Cane Sugar Refining*	16	7	8	1	2	4	0	0	0	0	40.5
2063	*Beet Sugar*	18	8	8	0	W	7	W	*	W	0	6.1
2075	*Soybean Oil Mills*	29	17	9	*	9	8	2	2	W	*	1.1
2082	*Malt Beverages*	21	19	2	*	6	13	1	Q	0	0	8.8
21	Tobacco Products	W	2	1	0	1	1	*	*	0	0	29.2
22	Textile Mill Products	113	65	36	1	26	30	4	20	Q	2	17.9
23	Apparel and Other Textile Products	24	5	14	1	2	3	*	2	*	*	26.2
24	Lumber and Wood Products	47	13	27	1	4	3	*	8	*	3	15.9
2421	*Sawmills and Planing Mills, General*	11	3	7	*	Q	1	*	1	0	1	31.6
2436	*Softwood Veneer and Plywood*	3	*	3	0	0	0	0	*	0	0	31.6
2493	*Reconstituted Wood Products*	17	7	9	W	3	1	0	6	0	*	17.1
25	Furniture and Fixtures	23	5	13	1	2	1	*	3	*	*	19.0
2511	*Wood Furniture, Except Upholstered*	2	*	1	*	*	*	*	*	*	*	38.8
26	Paper and Allied Products	558	238	296	30	81	141	27	22	5	7	5.1
2611	*Pulp Mills*	21	8	13	0	2	4	W	2	0	0	20.9
2621	*Paper Mills*	263	100	157	16	41	49	16	5	W	3	8.5
2631	*Paperboard Mills*	194	103	87	13	22	80	9	9	W	3	4.6
27	Printing and Publishing	46	10	27	1	5	2	*	4	*	1	13.2
28	Chemicals and Allied Products	1,840	287	1,427	16	114	99	11	89	0	17	7.9
2812	*Alkalies and Chlorine*	52	3	49	0	*	W	0	*	0	*	13.9
2813	*Industrial Gases*	18	2	15	2	0	0	0	0	0	0	45.3
2816	*Inorganic Pigments*	W	9	12	*	6	2	0	1	0	0	13.4
2819	*Industrial Inorganic Chemicals, nec.*	W	16	104	1	11	3	*	8	0	*	19.6
2821	*Plastics Materials and Resins*	W	38	138	*	11	23	*	10	0	1	15.4
2822	*Synthetic Rubber*	41	5	35	*	4	1	*	1	0	0	32.9
2823	*Cellulosic Manmade Fibers*	W	W	W	0	W	0	W	*	0	0	1.3
2824	*Organic Fibers, Noncellulosic*	W	13	23	W	5	9	*	*	0	W	11.7
2861	*Gum and Wood Chemicals*	4	1	3	0	0	W	0	W	0	0	15.3
2865	*Cyclic Crudes and Intermediates*	95	33	54	*	24	13	1	1	0	W	22.8
2869	*Industrial Organic Chemicals, nec.*	813	107	636	12	22	17	W	52	0	11	13.1
2873	*Nitrogenous Fertilizers*	260	3	244	*	2	1	0	*	0	0	25.0
2874	*Phosphatic Fertilizers*	W	3	6	*	1	3	0	W	0	*	8.1
2895	*Carbon Black*	17	*	16	0	0	*	0	0	0	0	24.2
29	Petroleum and Coal Products	W	230	525	9	60	79	2	166	*	7	8.2
2911	*Petroleum Refining*	734	216	490	8	48	75	*	162	0	7	7.5
30	Rubber and Misc. Plastics Products	107	45	49	3	19	22	1	7	Q	2	12.2
3011	*Tires and Inner Tubes*	22	18	4	*	6	13	1	*	0	*	10.2
308	*Miscellaneous Plastics Products, nec.*	62	19	34	1	10	6	Q	5	Q	1	19.1
31	Leather and Leather Products	W	1	3	*	*	1	*	*	*	*	31.9
32	Stone, Clay and Glass Products	419	182	214	6	79	26	20	86	3	7	9.2
3211	*Flat Glass*	44	21	21	*	12	2	0	9	0	*	27.4
3221	*Glass Containers*	64	32	32	*	9	5	0	19	0	0	8.7
3229	*Pressed and Blown Glass, nec.*	49	16	30	Q	7	4	Q	13	Q	Q	20.2
3241	*Cement, Hydraulic*	24	17	8	1	2	2	15	1	1	2	20.7
3274	*Lime*	12	5	6	0	3	1	2	1	Q	*	29.3
3296	*Mineral Wool*	36	12	24	0	2	*	0	9	0	0	19.4
33	Primary Metal Industries	778	180	571	5	40	53	20	50	41	4	8.7
331	*Blast Furnace and Basic Steel Products*	503	114	381	4	17	47	18	12	41	3	11.2
3312	*Blast Furnaces and Steel Mills*	462	109	348	3	14	46	18	9	41	3	11.4
3313	*Electrometallurgical Products*	2	Q	1	*	Q	0	0	Q	0	0	53.5
3321	*Gray and Ductile Iron Foundries*	32	9	22	*	2	1	0	5	*	1	23.2
3331	*Primary Copper*	21	2	19	*	W	W	W	0	*	*	1.0
3334	*Primary Aluminum*	16	6	9	0	2	1	0	5	0	0	1.9
3339	*Primary Nonferrous Metals, nec.*	12	6	5	0	5	W	W	*	0	0	25.5
3353	*Aluminum Sheet, Plate, and Foil*	51	8	40	*	3	W	0	5	0	0	9.8
34	Fabricated Metal Products	213	52	140	4	21	10	3	27	Q	2	22.5
35	Industrial Machinery and Equipment	107	23	69	3	7	4	1	12	*	2	13.9
357	*Computer and Office Equipment*	5	2	3	*	2	*	*	*	*	*	33.7
36	Electronic and Other Electric Equipment	84	25	52	2	9	8	*	10	*	*	14.5

See footnotes at end of table.

Table A29. Capability to Switch from Natural Gas to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)

(Estimates in Billion Cubic Feet)

SIC Code[a]	Industry Group and Industry	Natural Gas			Alternative Types of Energy[b]							RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.5	0.6	0.6	1.6	0.8	0.8	1.7	0.9	2.7	1.5	
37	Transportation Equipment	150	44	97	2	20	12	4	12	0	1	13.8
3711	*Motor Vehicles and Car Bodies*	51	9	39	0	5	1	2	5	0	0	29.3
3714	*Motor Vehicle Parts and Accessories*	53	17	34	*	8	2	2	6	0	*	18.7
38	Instruments and Related Products	W	10	16	*	6	3	*	1	*	1	16.5
3841	*Surgical and Medical Instruments*	2	*	1	*	*	*	0	*	0	*	25.8
39	Misc. Manufacturing Industries	19	3	14	*	1	1	*	2	*	*	25.2
	Total	5,962	1,656	3,865	97	612	579	104	584	53	62	3.6
Census Region and Division												
	Northeast	502	186	266	6	68	93	3	47	W	7	6.8
	New England	69	26	32	2	10	16	1	4	W	2	12.0
	Middle Atlantic	433	160	234	4	58	77	2	43	W	5	7.4
	Midwest	1,587	519	953	26	206	156	57	160	37	17	6.0
	East North Central	1,220	360	772	19	142	106	49	99	35	10	7.1
	West North Central	368	160	181	7	64	50	8	61	2	7	7.2
	South	3,176	718	2,248	55	266	249	36	277	14	33	5.4
	South Atlantic	586	297	243	18	118	124	14	81	13	11	7.2
	East South Central	455	165	260	15	75	55	12	55	*	4	7.9
	West South Central	2,135	256	1,745	22	74	70	10	141	1	18	8.6
	West	698	233	397	10	73	82	9	100	W	6	7.2
	Mountain	164	47	108	2	21	18	5	18	W	1	11.8
	Pacific	534	186	289	8	52	63	3	81	*	4	8.5
	Total	5,962	1,656	3,865	97	612	579	104	584	53	62	3.6
Value of Shipments and Receipts[f] (million dollars)												
	Under 20	659	148	378	18	71	40	12	56	4	12	10.9
	20-49	720	203	431	8	97	61	15	75	1	9	9.0
	50-99	736	228	447	5	88	72	10	84	2	7	7.7
	100-249	1,035	328	651	22	136	112	19	95	4	13	5.9
	250-499	813	237	560	11	87	119	21	58	2	7	5.5
	500 and Over	1,998	512	1,397	33	133	176	28	217	40	15	6.9
	Total	5,962	1,656	3,865	97	612	579	104	584	53	62	3.6
Employment Size[f]												
	Under 50	364	66	218	7	37	18	4	24	1	5	12.3
	50-99	498	109	313	8	47	32	6	37	1	3	13.2
	100-249	1,069	292	676	13	142	82	27	88	5	20	7.4
	250-499	1,086	370	644	25	129	128	21	164	4	11	6.0
	500-999	1,147	383	674	15	145	141	7	130	1	12	6.7
	1,000 and Over	1,799	436	1,340	28	113	177	40	141	41	10	5.7
	Total	5,962	1,656	3,865	97	612	579	104	584	53	62	3.6

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Alternative Types of Energy" consist of those energy sources that could have been substituted for natural gas during 1994. The quantities are expressed in billions of cubic feet, and therefore represent the quantity of natural gas that could have been displaced by the given alternative type of energy.

[c] "Total Consumed" represents those quantities (Total Inputs) of natural gas that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

[d] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

[e] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of natural gas.

[f] Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A29. Number of Establishments by Capability to Switch from Natural Gas to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code[a]	Industry Group and Industry	Natural Gas[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[f]	
	RSE Column Factors:	0.3	0.7	0.5	1.5	1.0	1.1	1.6	1.1	2.0	1.7	
20	Food and Kindred Products	11,042	2,534	5,136	343	1,355	702	91	1,027	21	269	11.9
2011	*Meat Packing Plants*	528	168	173	4	103	23	0	64	0	Q	22.6
2033	*Canned Fruits and Vegetables*	507	206	181	15	113	112	Q	63	W	17	19.4
2037	*Frozen Fruits and Vegetables*	195	Q	148	W	Q	Q	0	Q	0	W	61.9
2046	*Wet Corn Milling*	48	16	31	W	8	3	3	W	0	0	14.8
2051	*Bread, Cake, and Related Products*	1,011	146	631	W	53	24	0	109	0	W	26.8
2061	*Cane Sugar, Except Refining*	25	W	17	0	W	0	0	0	0	0	21.1
2062	*Cane Sugar Refining*	11	8	8	W	3	W	0	0	0	0	27.3
2063	*Beet Sugar*	36	17	19	0	7	13	5	W	W	0	3.9
2075	*Soybean Oil Mills*	88	48	40	W	30	21	7	14	W	3	1.1
2082	*Malt Beverages*	133	119	35	W	38	49	23	48	0	0	8.4
21	Tobacco Products	94	59	48	0	23	39	W	W	0	0	10.2
22	Textile Mill Products	2,517	820	993	Q	297	306	36	392	5	30	21.7
23	Apparel and Other Textile Products	8,885	492	4,329	218	204	99	Q	224	W	99	22.0
24	Lumber and Wood Products	7,557	1,614	3,207	798	511	526	277	959	245	362	21.3
2421	*Sawmills and Planing Mills, General*	657	61	406	Q	12	7	W	20	0	14	30.4
2436	*Softwood Veneer and Plywood*	67	W	58	0	0	0	0	W	0	0	18.0
2493	*Reconstituted Wood Products*	132	Q	Q	W	Q	Q	0	Q	0	Q	76.7
25	Furniture and Fixtures	5,109	747	2,423	597	410	252	335	559	319	Q	27.4
2511	*Wood Furniture, Except Upholstered*	776	Q	448	Q	Q	Q	W	Q	W	Q	62.6
26	Paper and Allied Products	4,290	884	2,215	183	371	309	47	224	20	61	11.4
2611	*Pulp Mills*	40	26	26	0	10	12	W	10	0	0	7.9
2621	*Paper Mills*	232	137	152	9	57	87	20	17	4	13	4.3
2631	*Paperboard Mills*	189	123	108	21	39	84	15	13	W	9	2.7
27	Printing and Publishing	22,680	1,630	13,648	780	422	586	86	604	56	117	16.9
28	Chemicals and Allied Products	6,723	1,271	4,591	285	652	433	51	364	0	89	12.1
2812	*Alkalies and Chlorine*	33	11	26	0	5	4	0	4	0	W	6.0
2813	*Industrial Gases*	152	W	120	W	0	0	0	0	0	0	24.2
2816	*Inorganic Pigments*	66	21	42	W	13	9	0	12	0	0	5.5
2819	*Industrial Inorganic Chemicals, nec.*	495	109	329	14	72	28	W	33	0	4	14.9
2821	*Plastics Materials and Resins*	395	139	227	8	68	68	5	45	0	9	12.7
2822	*Synthetic Rubber*	53	16	38	3	8	9	3	6	0	0	14.8
2823	*Cellulosic Manmade Fibers*	6	3	4	0	W	0	W	W	0	0	1.3
2824	*Organic Fibers, Noncellulosic*	62	38	34	W	18	20	W	5	0	4	5.3
2861	*Gum and Wood Chemicals*	22	4	15	0	0	W	0	W	0	0	8.8
2865	*Cyclic Crudes and Intermediates*	178	105	87	W	53	41	W	18	0	24	14.0
2869	*Industrial Organic Chemicals, nec.*	530	138	338	Q	69	43	5	23	0	15	16.9
2873	*Nitrogenous Fertilizers*	79	15	65	W	11	6	0	4	0	0	12.9
2874	*Phosphatic Fertilizers*	51	13	28	W	9	5	0	3	0	W	4.1
2895	*Carbon Black*	22	W	18	0	0	W	0	0	0	0	12.4
29	Petroleum and Coal Products	1,148	397	665	33	273	120	16	176	W	24	18.9
2911	*Petroleum Refining*	218	128	160	13	37	55	4	92	0	8	3.0
30	Rubber and Misc. Plastics Products	8,927	1,351	5,921	710	488	322	56	480	Q	158	15.4
3011	*Tires and Inner Tubes*	112	70	49	W	32	38	5	5	0	W	12.5
308	*Miscellaneous Plastics Products, nec.*	7,358	940	4,972	527	372	243	51	404	Q	148	17.6
31	Leather and Leather Products	975	116	361	61	26	65	W	W	W	W	37.0
32	Stone, Clay and Glass Products	6,990	1,188	3,523	172	453	276	Q	683	22	99	20.8
3211	*Flat Glass*	62	27	39	W	14	W	0	12	0	W	11.0
3221	*Glass Containers*	78	49	58	4	19	10	0	29	0	0	4.8
3229	*Pressed and Blown Glass, nec.*	163	31	95	Q	Q	Q	W	22	W	W	27.8
3241	*Cement, Hydraulic*	127	78	88	6	23	19	55	17	9	18	13.0
3274	*Lime*	53	19	34	0	8	7	12	5	W	W	18.6
3296	*Mineral Wool*	169	67	121	0	20	W	0	52	0	0	6.3
33	Primary Metal Industries	4,652	719	3,051	109	231	125	14	360	Q	45	10.2
331	*Blast Furnace and Basic Steel Products*	931	156	686	29	62	45	8	70	11	14	10.9
3312	*Blast Furnaces and Steel Mills*	261	81	209	12	37	29	6	22	11	8	4.8
3313	*Electrometallurgical Products*	32	7	25	Q	Q	0	0	Q	0	0	37.7
3321	*Gray and Ductile Iron Foundries*	488	145	354	19	33	20	0	69	W	7	23.1
3331	*Primary Copper*	18	6	16	W	4	W	W	0	W	W	1.0
3334	*Primary Aluminum*	42	22	23	0	10	6	0	14	0	0	9.6
3339	*Primary Nonferrous Metals, nec.*	72	12	52	0	4	W	W	9	0	0	20.7
3353	*Aluminum Sheet, Plate, and Foil*	53	17	39	W	7	W	0	11	0	0	4.9
34	Fabricated Metal Products	20,023	2,440	11,455	1,159	878	559	259	1,285	95	269	19.4
35	Industrial Machinery and Equipment	24,422	2,431	11,452	1,414	830	643	499	1,172	Q	642	18.1
357	*Computer and Office Equipment*	1,037	Q	367	Q	Q	Q	W	Q	W	W	47.6
36	Electronic and Other Electric Equipment	7,362	557	5,492	278	181	89	22	199	W	W	20.5

See footnotes at end of table.

Table A29. Number of Establishments by Capability to Switch from Natural Gas to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	Natural Gas[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[f]	
	RSE Column Factors:	0.3	0.7	0.5	1.5	1.0	1.1	1.6	1.1	2.0	1.7	
37	Transportation Equipment	4,300	532	2,883	308	210	161	23	260	0	13	24.3
3711	*Motor Vehicles and Car Bodies*	261	Q	Q	0	Q	W	W	Q	0	0	163.0
3714	*Motor ehicle Parts and Accessories*	1,454	191	1,035	60	37	11	15	103	0	Q	26.1
38	Instruments and Related Products	4,591	292	3,091	100	120	63	Q	92	Q	58	24.6
3841	*Surgical and Medical Instruments*	577	26	444	W	9	W	0	9	0	3	33.4
39	Misc. Manufacturing Industries	6,488	215	4,674	82	101	105	Q	98	Q	Q	25.8
	Total	158,773	20,287	89,160	7,727	8,036	5,779	2,201	9,245	1,218	2,522	6.5

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] "Alternative Types of Energy" consist of those energy sources that could have been substituted for natural gas during 1994. The quantities are expressed in billions of cubic feet, and therefore represent the quantity of natural gas that could have been displaced by the given alternative type of energy.
[d] "Total Consumed" represents those quantities (Total Inputs) of natural gas that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[e] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[f] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of natural gas.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q= Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A30. Number of Establishments that Actually Switched Fuels from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994

SIC Code*	Industry Group and Industry	Natural Gas Switchable to Residual Fuel Oil (billion cu ft)	Establishments					RSE Row Factors
			Total (counts)	Able to Switch		Actually Switched		
				(counts)	(percents)	(counts)	(percents)	
	RSE Column Factors:	1.3	0.1	1.4	1.7	1.6	1.8	
20	Food and Kindred Products	81	14,698	702	4.8	262	1.8	5.6
2011	*Meat Packing Plants*	4	759	23	3.0	10	1.3	9.0
2033	*Canned Fruits and Vegetables*	9	531	112	21.2	33	6.2	11.6
2037	*Frozen Fruits and Vegetables*	5	232	Q	5.3	Q	1.1	10.5
2046	*Wet Corn Milling*	2	58	3	4.9	W	W	17.0
2051	*Bread, Cake, and Related Products*	*	1,303	24	1.8	10	0.7	20.3
2061	*Cane Sugar, Except Refining*	0	43	0	0.0	0	0.0	9.1
2062	*Cane Sugar Refining*	4	20	W	W	W	W	17.6
2063	*Beet Sugar*	7	41	13	30.6	6	13.9	3.0
2075	*Soybean Oil Mills*	8	95	21	21.9	10	11.0	1.0
2082	*Malt Beverages*	13	140	49	34.7	31	22.0	6.4
21	Tobacco Products	1	121	39	32.4	28	23.3	9.2
22	Textile Mill Products	30	4,428	306	6.9	179	4.0	9.4
23	Apparel and Other Textile Products	3	18,019	99	0.6	25	0.1	19.0
24	Lumber and Wood Products	3	21,623	526	2.4	4	*	15.9
2421	*Sawmills and Planing Mills, General*	1	3,545	7	0.2	0	0.0	16.4
2436	*Softwood Veneer and Plywood*	0	182	0	0.0	0	0.0	9.1
2493	*Reconstituted Wood Products*	1	246	Q	Q	W	W	12.0
25	Furniture and Fixtures	1	7,691	252	3.3	0	0.0	18.5
2511	*Wood Furniture, Except Upholstered*	*	1,548	Q	Q	0	0.0	16.7
26	Paper and Allied Products	141	5,582	309	5.5	153	2.7	4.0
2611	*Pulp Mills*	4	55	12	21.9	10	18.8	7.2
2621	*Paper Mills*	49	310	87	28.0	48	15.6	3.4
2631	*Paperboard Mills*	80	219	84	38.4	51	23.1	2.0
27	Printing and Publishing	2	37,384	586	1.6	20	0.1	13.1
28	Chemicals and Allied Products	99	9,565	433	4.5	209	2.2	5.3
2812	*Alkalies and Chlorine*	W	44	4	8.6	0	0.0	6.8
2813	*Industrial Gases*	0	623	0	0.0	0	0.0	9.1
2816	*Inorganic Pigments*	2	81	9	11.6	4	5.0	6.3
2819	*Industrial Inorganic Chemicals, nec.*	3	568	28	5.0	9	1.6	10.9
2821	*Plastics Materials and Resins*	23	456	68	14.9	42	9.1	9.6
2822	*Synthetic Rubber*	1	63	9	14.4	6	10.3	11.0
2823	*Cellulosic Manmade Fibers*	0	11	0	0.0	0	0.0	9.1
2824	*Organic Fibers, Noncellulosic*	9	73	20	27.3	18	24.1	3.8
2861	*Gum and Wood Chemicals*	W	60	W	W	W	W	7.4
2865	*Cyclic Crudes and Intermediates*	13	187	41	21.7	22	11.7	8.2
2869	*Industrial Organic Chemicals, nec.*	17	631	43	6.8	22	3.5	9.8
2873	*Nitrogenous Fertilizers*	1	118	6	5.4	W	W	13.6
2874	*Phosphatic Fertilizers*	3	69	5	7.3	3	3.6	4.3
2895	*Carbon Black*	*	23	W	W	0	0.0	14.1
29	Petroleum and Coal Products	79	1,971	120	6.1	44	2.2	10.6
2911	*Petroleum Refining*	75	247	55	22.1	25	10.3	3.4
30	Rubber and Misc. Plastics Products	22	11,952	322	2.7	107	0.9	11.5
3011	*Tires and Inner Tubes*	13	112	38	34.1	29	25.8	6.7
308	*Miscellaneous Plastics Products, nec.*	6	9,967	243	2.4	66	Q	15.3
31	Leather and Leather Products	1	1,356	65	4.8	Q	Q	19.7
32	Stone, Clay and Glass Products	26	11,970	276	2.3	26	0.2	9.1
3211	*Flat Glass*	2	68	W	W	W	W	19.0
3221	*Glass Containers*	5	78	10	12.9	7	8.6	6.2
3229	*Pressed and Blown Glass, nec.*	4	163	Q	Q	0	0.0	15.9
3241	*Cement, Hydraulic*	2	190	19	10.2	5	2.8	10.6
3274	*Lime*	1	84	7	8.1	W	W	18.3
3296	*Mineral Wool*	*	174	W	W	0	0.0	11.0
33	Primary Metal Industries	53	5,171	125	2.4	35	0.7	8.9
331	*Blast Furnace and Basic Steel Products*	47	981	45	4.6	19	2.0	8.2
3312	*Blast Furnaces and Steel Mills*	46	284	29	10.3	11	3.8	5.8
3313	*Electrometallurgical Products*	0	36	0	0.0	0	0.0	9.1
3321	*Gray and Ductile Iron Foundries*	1	517	20	Q	W	W	16.8
3331	*Primary Copper*	W	20	W	W	0	0.0	1.3
3334	*Primary Aluminum*	1	44	6	13.6	0	0.0	2.3
3339	*Primary Nonferrous Metals, nec.*	W	88	W	W	W	W	17.3
3353	*Aluminum Sheet, Plate, and Foil*	W	55	W	W	0	0.0	9.0
34	Fabricated Metal Products	10	26,262	559	2.1	40	0.2	17.0
35	Industrial Machinery and Equipment	4	33,837	643	1.9	28	0.1	14.0
357	*Computer and Office Equipment*	*	1,410	Q	Q	0	0.0	15.9
36	Electronic and Other Electric Equipment	8	11,264	89	0.8	23	0.2	10.8

See footnotes at end of table.

Table A30. Number of Establishments that Actually Switched Fuels from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Natural Gas Switchable to Residual Fuel Oil (billion cu ft)	Establishments					RSE Row Factors
			Total (counts)	Able to Switch		Actually Switched		
				(counts)	(percents)	(counts)	(percents)	
	RSE Column Factors:	1.3	0.1	1.4	1.7	1.6	1.8	
37	Transportation Equipment	12	7,240	161	2.2	20	0.3	12.9
3711	*Motor Vehicles and Car Bodies*	1	322	W	W	W	W	22.4
3714	*Motor Vehicle Parts and Accessories*	2	2,062	11	0.5	5	0.2	14.8
38	Instruments and Related Products	3	7,071	63	0.9	14	0.2	12.5
3841	*Surgical and Medical Instruments*	*	878	W	W	0	0.0	9.1
39	Misc. Manufacturing Industries	1	9,994	105	1.1	Q	Q	17.9
	Total	579	247,199	5,779	2.3	1,279	0.5	3.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A31. Percent of Establishments by Primary Reasons for Actually Switching Fuels from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994

SIC Code[a]	Industry Group and Industry	Establishments that Actually Switched[b] (counts)	Reasons					RSE Row Factors
			Supply Shortage or Curtailment of Fuel	Down-Time Caused by Maintenance	Residual Fuel Oil Was Less Expensive	Environmental Restriction on Emissions or Waste	Other	
	RSE Column Factors:	0.7	0.5	1.2	0.7	2.3	1.7	
20	Food and Kindred Products	262	73.5	3.5	47.6	Q	6.7	16.2
2011	*Meat Packing Plants*	10	100.0	0.0	60.1	0.0	W	18.9
2033	*Canned Fruits and Vegetables*	33	78.7	W	78.1	W	0.0	19.2
2037	*Frozen Fruits and Vegetables*	Q	100.0	0.0	0.0	0.0	0.0	0.0
2046	*Wet Corn Milling*	W	0.0	0.0	W	0.0	0.0	48.8
2051	*Bread, Cake, and Related Products*	10	100.0	0.0	0.0	0.0	0.0	56.2
2061	*Cane Sugar, Except Refining*	0	0.0	0.0	0.0	0.0	0.0	0.0
2062	*Cane Sugar Refining*	W	W	0.0	0.0	0.0	0.0	40.0
2063	*Beet Sugar*	6	100.0	0.0	W	0.0	0.0	5.9
2075	*Soybean Oil Mills*	10	66.7	W	44.4	0.0	W	1.5
2082	*Malt Beverages*	31	69.5	0.0	47.9	0.0	W	11.3
21	Tobacco Products	28	76.1	0.0	W	0.0	W	27.0
22	Textile Mill Products	179	82.9	Q	26.8	Q	W	24.6
23	Apparel and Other Textile Products	25	100.0	0.0	0.0	0.0	0.0	48.8
24	Lumber and Wood Products	4	0.0	0.0	100.0	0.0	0.0	42.9
2421	*Sawmills and Planing Mills, General*	0	0.0	0.0	0.0	0.0	0.0	0.0
2436	*Softwood Veneer and Plywood*	0	0.0	0.0	0.0	0.0	0.0	0.0
2493	*Reconstituted Wood Products*	W	0.0	0.0	W	0.0	0.0	69.6
25	Furniture and Fixtures	0	0.0	0.0	0.0	0.0	0.0	0.0
2511	*Wood Furniture, Except Upholstered*	0	0.0	0.0	0.0	0.0	0.0	0.0
26	Paper and Allied Products	153	75.2	14.0	50.2	4.1	13.0	11.3
2611	*Pulp Mills*	10	66.7	0.0	50.0	W	W	16.0
2621	*Paper Mills*	48	81.6	7.9	47.4	0.0	7.9	8.1
2631	*Paperboard Mills*	51	84.1	22.7	56.8	W	W	3.6
27	Printing and Publishing	20	73.4	26.6	33.4	0.0	0.0	34.4
28	Chemicals and Allied Products	209	80.3	12.5	51.1	3.1	2.1	10.5
2812	*Alkalies and Chlorine*	0	0.0	0.0	0.0	0.0	0.0	0.0
2813	*Industrial Gases*	0	0.0	0.0	0.0	0.0	0.0	0.0
2816	*Inorganic Pigments*	4	100.0	0.0	66.7	0.0	0.0	12.4
2819	*Industrial Inorganic Chemicals, nec.*	9	66.7	W	66.7	0.0	0.0	17.1
2821	*Plastics Materials and Resins*	42	57.8	20.2	58.4	W	W	21.4
2822	*Synthetic Rubber*	6	80.0	0.0	W	0.0	0.0	27.8
2823	*Cellulosic Manmade Fibers*	0	0.0	0.0	0.0	0.0	0.0	0.0
2824	*Organic Fibers, Noncellulosic*	18	93.3	26.7	60.0	0.0	0.0	5.6
2861	*Gum and Wood Chemicals*	W	W	0.0	0.0	0.0	0.0	17.8
2865	*Cyclic Crudes and Intermediates*	22	74.4	0.0	92.0	0.0	0.0	11.1
2869	*Industrial Organic Chemicals, nec.*	22	88.8	16.8	47.3	0.0	W	17.7
2873	*Nitrogenous Fertilizers*	W	W	0.0	0.0	0.0	0.0	48.8
2874	*Phosphatic Fertilizers*	3	W	0.0	100.0	0.0	0.0	12.5
2895	*Carbon Black*	0	0.0	0.0	0.0	0.0	0.0	0.0
29	Petroleum and Coal Products	44	64.9	37.7	44.2	Q	Q	41.5
2911	*Petroleum Refining*	25	52.6	15.8	63.2	W	10.5	7.9
30	Rubber and Misc. Plastics Products	107	36.4	7.9	73.9	W	Q	38.6
3011	*Tires and Inner Tubes*	29	48.6	W	51.3	W	15.3	15.5
308	*Miscellaneous Plastics Products, nec.*	66	Q	Q	88.3	0.0	60.7	25.8
31	Leather and Leather Products	Q	Q	0.0	0.0	0.0	W	14.0
32	Stone, Clay and Glass Products	26	75.9	18.4	59.8	0.0	W	16.5
3211	*Flat Glass*	W	0.0	0.0	0.0	0.0	W	37.0
3221	*Glass Containers*	7	83.3	0.0	83.3	0.0	0.0	10.2
3229	*Pressed and Blown Glass, nec.*	0	0.0	0.0	0.0	0.0	0.0	0.0
3241	*Cement, Hydraulic*	5	100.0	66.7	W	0.0	0.0	27.2
3274	*Lime*	W	W	0.0	W	0.0	0.0	72.5
3296	*Mineral Wool*	0	0.0	0.0	0.0	0.0	0.0	0.0
33	Primary Metal Industries	35	74.4	10.0	29.9	W	W	20.7
331	*Blast Furnace and Basic Steel Products*	19	61.3	W	38.2	W	0.0	17.4
3312	*Blast Furnaces and Steel Mills*	11	42.9	W	42.9	0.0	0.0	19.5
3313	*Electrometallurgical Products*	0	0.0	0.0	0.0	0.0	0.0	0.0
3321	*Gray and Ductile Iron Foundries*	W	W	0.0	0.0	0.0	0.0	0.0
3331	*Primary Copper*	0	0.0	0.0	0.0	0.0	0.0	0.0
3334	*Primary Aluminum*	0	0.0	0.0	0.0	0.0	0.0	0.0
3339	*Primary Nonferrous Metals, nec.*	W	W	0.0	0.0	0.0	0.0	48.8
3353	*Aluminum Sheet, Plate, and Foil*	0	0.0	0.0	0.0	0.0	0.0	0.0
34	Fabricated Metal Products	40	78.9	7.2	41.1	W	W	44.1
35	Industrial Machinery and Equipment	28	62.7	W	30.1	0.0	Q	42.0
357	*Computer and Office Equipment*	0	0.0	0.0	0.0	0.0	0.0	0.0
36	Electronic and Other Electric Equipment	23	74.4	20.6	57.6	0.0	0.0	21.8

See footnotes at end of table.

Table A31. Percent of Establishments by Primary Reasons for Actually Switching Fuels from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Establishments that Actually Switched[b] (counts)	Reasons					RSE Row Factors
			Supply Shortage or Curtailment of Fuel	Down-Time Caused by Maintenance	Residual Fuel Oil Was Less Expensive	Environmental Restriction on Emissions or Waste	Other	
	RSE Column Factors:	0.7	0.5	1.2	0.7	2.3	1.7	
37	Transportation Equipment	20	71.8	28.6	21.1	14.1	W	18.3
3711	*Motor Vehicles and Car Bodies*	W	W	0.0	0.0	0.0	0.0	0.0
3714	*Motor Vehicle Parts and Accessories*	5	100.0	W	0.0	0.0	0.0	41.0
38	Instruments and Related Products	14	72.1	W	55.8	0.0	W	25.1
3841	*Surgical and Medical Instruments*	0	0.0	0.0	0.0	0.0	0.0	0.0
39	Misc. Manufacturing Industries	Q	Q	0.0	Q	0.0	79.8	11.1
	Total	1,279	70.2	9.0	42.9	3.6	13.5	11.3

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Sum of component percents may exceed 100 percent because multiple responses, if applicable, were accepted.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A32. Percent of Establishments by Levels of Price Difference between Natural Gas and Less Expensive Residual Fuel Oil that Would Cause Fuel Switching from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994

SIC Code[a]	Industry Group and Industry	Establishments Able to Switch[b] (counts)	Levels of Price Difference[c] between Natural Gas and Less Expensive Residual Fuel Oil											RSE Row Factors
			1 - 5 Percent	6 - 10 Percent	11 - 15 Percent	16 - 20 Percent	21 - 30 Percent	31 - 40 Percent	41 - 50 Percent	Over 50 Percent	Would Not Switch Due to Price	Estimate Cannot Be Provided	Would Switch to More Expensive Substitute	
	RSE Column Factors:	0.5	0.8	0.8	1.1	1.3	1.2	1.3	1.6	1.3	0.9	0.7	1.2	
20	Food and Kindred Products	702	11.6	11.4	10.3	7.9	3.6	0.8	0.0	0.6	16.2	37.7	0.0	20.2
2011	*Meat Packing Plants*	23	17.2	26.7	0.0	0.0	0.0	W	0.0	0.0	W	39.1	0.0	27.4
2033	*Canned Fruits and Vegetables*	112	Q	14.0	3.3	Q	Q	0.0	0.0	0.0	10.8	39.1	0.0	46.7
2037	*Frozen Fruits and Vegetables*	Q	0.0	W	22.7	0.0	0.0	0.0	0.0	0.0	30.1	W	0.0	26.1
2046	*Wet Corn Milling*	3	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	40.5
2051	*Bread, Cake, and Related Products*	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Q	72.4	0.0	45.2
2061	*Cane Sugar, Except Refining*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2062	*Cane Sugar Refining*	W	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.3
2063	*Beet Sugar*	13	W	W	W	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	7.3
2075	*Soybean Oil Mills*	21	W	27.8	W	0.0	0.0	0.0	0.0	0.0	22.2	38.9	0.0	2.1
2082	*Malt Beverages*	49	0.0	14.0	69.3	0.0	0.0	W	0.0	W	0.0	W	0.0	16.5
21	Tobacco Products	39	W	26.2	20.3	0.0	W	W	0.0	0.0	0.0	19.0	W	36.7
22	Textile Mill Products	306	19.5	12.6	16.1	2.6	Q	0.0	W	W	12.7	24.3	0.0	28.0
23	Apparel and Other Textile Products	99	W	Q	W	W	W	0.0	0.0	0.0	Q	53.4	0.0	48.0
24	Lumber and Wood Products	526	Q	W	Q	0.0	Q	0.0	W	W	Q	55.5	0.0	59.9
2421	*Sawmills and Planing Mills, General*	7	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	0.0	80.5	0.0	31.8
2436	*Softwood Veneer and Plywood*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2493	*Reconstituted Wood Products*	Q	W	W	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	0.0	45.4
25	Furniture and Fixtures	252	0.0	W	W	W	W	0.0	W	0.0	Q	Q	W	84.9
2511	*Wood Furniture, Except Upholstered*	Q	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
26	Paper and Allied Products	309	13.2	17.7	4.6	4.0	3.5	3.6	1.0	Q	17.5	33.3	W	17.3
2611	*Pulp Mills*	12	W	0.0	0.0	W	0.0	W	0.0	0.0	0.0	57.1	0.0	21.6
2621	*Paper Mills*	87	8.8	25.0	7.3	4.4	W	4.4	0.0	0.0	11.8	35.3	W	11.7
2631	*Paperboard Mills*	84	23.3	24.6	5.5	W	4.1	W	W	W	9.6	27.5	0.0	6.5
27	Printing and Publishing	586	1.2	Q	0.0	Q	W	Q	0.0	0.0	39.0	31.5	W	44.6
28	Chemicals and Allied Products	433	11.9	14.4	6.1	W	0.9	1.7	1.4	W	25.7	26.7	2.9	20.3
2812	*Alkalies and Chlorine*	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	12.0
2813	*Industrial Gases*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2816	*Inorganic Pigments*	9	0.0	28.6	0.0	0.0	0.0	W	0.0	0.0	28.6	W	0.0	14.5
2819	*Industrial Inorganic Chemicals, nec.*	28	11.1	11.1	0.0	0.0	0.0	W	W	0.0	19.4	47.3	0.0	30.1
2821	*Plastics Materials and Resins*	68	13.5	22.3	5.4	0.0	W	0.0	W	0.0	17.5	31.6	W	31.8
2822	*Synthetic Rubber*	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	42.9	29.1
2823	*Cellulosic Manmade Fibers*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2824	*Organic Fibers, Noncellulosic*	20	41.2	35.3	W	0.0	W	0.0	0.0	0.0	0.0	W	0.0	10.7
2861	*Gum and Wood Chemicals*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	14.5
2865	*Cyclic Crudes and Intermediates*	41	26.6	8.5	8.5	0.0	0.0	0.0	0.0	W	31.4	W	0.0	28.7
2869	*Industrial Organic Chemicals, nec.*	43	18.4	Q	12.6	0.0	W	0.0	0.0	0.0	W	31.9	9.2	27.7
2873	*Nitrogenous Fertilizers*	6	0.0	W	0.0	40.0	0.0	0.0	W	0.0	0.0	W	0.0	28.6
2874	*Phosphatic Fertilizers*	5	W	0.0	W	0.0	0.0	0.0	0.0	0.0	W	W	0.0	10.1
2895	*Carbon Black*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	44.6
29	Petroleum and Coal Products	120	6.7	16.7	4.4	3.3	Q	0.0	W	0.0	15.5	34.0	W	26.0
2911	*Petroleum Refining*	55	14.6	14.6	4.9	7.3	0.0	0.0	W	0.0	19.5	34.1	W	9.7
30	Rubber and Misc. Plastics Products	322	11.0	8.1	2.0	Q	1.0	0.0	0.0	W	27.8	34.6	W	40.0
3011	*Tires and Inner Tubes*	38	44.8	11.6	7.7	0.0	0.0	0.0	0.0	0.0	W	W	0.0	16.1
308	*Miscellaneous Plastics Products, nec.*	243	6.2	6.5	0.0	Q	W	0.0	0.0	W	34.8	36.7	W	52.0
31	Leather and Leather Products	65	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	Q	55.1	W	70.3
32	Stone, Clay and Glass Products	276	Q	6.1	2.2	Q	Q	1.1	0.0	0.0	W	42.3	W	39.7
3211	*Flat Glass*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	0.0	53.1
3221	*Glass Containers*	10	0.0	W	W	W	0.0	0.0	0.0	0.0	0.0	33.3	W	17.8
3229	*Pressed and Blown Glass, nec.*	Q	0.0	0.0	W	W	0.0	0.0	0.0	0.0	W	W	0.0	51.0
3241	*Cement, Hydraulic*	19	W	0.0	18.2	W	0.0	W	0.0	0.0	W	45.5	0.0	31.0
3274	*Lime*	7	0.0	W	0.0	0.0	W	0.0	0.0	0.0	W	W	W	47.3
3296	*Mineral Wool*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	0.0	19.1
33	Primary Metal Industries	125	Q	11.8	2.8	2.2	W	0.0	0.0	W	30.9	39.6	0.0	27.0
331	*Blast Furnace and Basic Steel Products*	45	29.7	20.1	W	0.0	0.0	0.0	0.0	0.0	W	43.4	0.0	31.4
3312	*Blast Furnaces and Steel Mills*	29	15.8	26.3	W	0.0	0.0	0.0	0.0	0.0	W	47.4	0.0	17.1
3313	*Electrometallurgical Products*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3321	*Gray and Ductile Iron Foundries*	20	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	76.1	W	0.0	41.1
3331	*Primary Copper*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	2.1
3334	*Primary Aluminum*	6	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	60.0	W	0.0	21.2
3339	*Primary Nonferrous Metals, nec.*	W	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.1
3353	*Aluminum Sheet, Plate, and Foil*	W	0.0	0.0	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.5
34	Fabricated Metal Products	559	Q	1.5	0.5	W	W	0.0	0.0	Q	47.3	40.1	0.0	55.2
35	Industrial Machinery and Equipment	643	1.3	Q	Q	Q	W	0.0	0.0	W	Q	39.4	0.0	64.0
357	*Computer and Office Equipment*	Q	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	2.9
36	Electronic and Other Electric Equipment	89	8.8	11.7	Q	0.0	W	0.0	0.0	0.0	39.7	W	0.0	35.8

See footnotes at end of table.

Table A32. Percent of Establishments by Levels of Price Difference between Natural Gas and Less Expensive Residual Fuel Oil that Would Cause Fuel Switching from Natural Gas to Residual Fuel Oil, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Establishments Able to Switch[b] (counts)	Levels of Price Difference[c] between Natural Gas and Less Expensive Residual Fuel Oil											RSE Row Factors
			1 - 5 Percent	6 - 10 Percent	11 - 15 Percent	16 - 20 Percent	21 - 30 Percent	31 - 40 Percent	41 - 50 Percent	Over 50 Percent	Would Not Switch Due to Price	Estimate Cannot Be Provided	Would Switch to More Expensive Substitute	
	RSE Column Factors:	0.5	0.8	0.8	1.1	1.3	1.2	1.3	1.6	1.3	0.9	0.7	1.2	
37	Transportation Equipment	161	Q	Q	Q	W	Q	W	W	0.0	Q	Q	W	84.9
3711	*Motor Vehicles and Car Bodies*	W	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3714	*Motor Vehicle Parts and Accessories*	11	0.0	31.4	0.0	0.0	0.0	0.0	0.0	0.0	25.2	43.3	0.0	38.6
38	Instruments and Related Products	63	14.5	8.5	W	0.0	Q	W	W	0.0	Q	27.7	0.0	51.0
3841	*Surgical and Medical Instruments*	W	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	Misc. Manufacturing Industries	105	W	0.0	0.0	W	0.0	0.0	0.0	W	Q	59.9	W	64.1
	Total	5,779	6.3	6.6	7.1	4.6	4.4	2.8	0.6	2.1	25.7	38.1	1.7	21.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.

[c] These levels of price difference were guesstimates at which establishments perceived that they would switch. These levels were not actual values at which switching occurred. The percentage of price difference is computed as the quantity of (current fuel price minus alternative fuel price) divided by the current fuel price, expressed as a percent.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components *because of independent rounding.* • *Establishment percents may not equal 100 percent because of unknown and/or unreported fuel-switching guesstimate.*

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A33. Capability to Switch from Residual Fuel Oil to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1

(Estimates in Thousand Barrels)

SIC Code[a]	Industry Group and Industry	Residual Fuel Oil			Alternative Types of Energy[b]							RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Natural Gas	Distillate Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.6	0.6	0.8	1.6	0.6	0.9	1.5	1.1	2.1	1.3	
20	Food and Kindred Products	4,785	2,770	1,603	W	2,279	1,021	201	180	0	442	14.9
2011	*Meat Packing Plants*	138	124	W	*	124	*	*	*	0	0	28.7
2033	*Canned Fruits and Vegetables*	241	123	118	0	102	42	21	0	0	Q	33.1
2037	*Frozen Fruits and Vegetables*	204	W	Q	W	42	0	0	0	0	1	37.1
2046	*Wet Corn Milling*	169	W	19	0	143	0	0	0	0	0	60.2
2051	*Bread, Cake, and Related Products*	Q	Q	0	0	2	0	0	W	0	0	62.9
2061	*Cane Sugar, Except Refining*	W	269	71	W	W	188	W	0	0	131	24.1
2062	*Cane Sugar Refining*	313	123	190	0	123	0	0	0	0	0	51.3
2063	*Beet Sugar*	270	W	W	0	247	W	0	0	0	0	7.2
2075	*Soybean Oil Mills*	147	136	0	W	136	89	0	W	0	W	1.1
2082	*Malt Beverages*	W	372	W	0	370	W	Q	0	0	W	2.1
21	Tobacco Products	133	106	27	0	106	0	0	0	0	0	35.9
22	Textile Mill Products	2,680	1,000	1,474	Q	884	377	W	Q	0	W	26.7
23	Apparel and Other Textile Products	W	Q	Q	0	Q	0	0	0	0	0	75.2
24	Lumber and Wood Products	W	W	W	Q	W	W	Q	W	*	0	24.6
2421	*Sawmills and Planing Mills, General*	W	Q	10	Q	W	W	Q	W	*	0	67.0
2436	*Softwood Veneer and Plywood*	Q	0	Q	0	0	0	0	0	0	0	0.0
2493	*Reconstituted Wood Products*	W	W	W	0	W	W	0	W	0	0	25.6
25	Furniture and Fixtures	60	Q	46	0	4	Q	4	0	0	0	38.4
2511	*Wood Furniture, Except Upholstered*	47	Q	37	0	0	Q	0	0	0	0	40.8
26	Paper and Allied Products	27,444	9,707	17,156	1,529	6,355	2,792	847	543	W	1,010	7.2
2611	*Pulp Mills*	3,583	802	2,480	0	567	2	24	0	0	212	25.6
2621	*Paper Mills*	14,942	3,687	11,116	W	1,301	1,246	396	W	0	398	13.4
2631	*Paperboard Mills*	7,914	4,650	3,207	W	3,989	1,474	427	466	W	370	5.9
27	Printing and Publishing	W	W	W	0	44	5	0	9	0	0	36.7
28	Chemicals and Allied Products	9,567	3,912	5,564	256	2,849	1,313	252	440	W	67	10.6
2812	*Alkalies and Chlorine*	W	W	*	0	W	0	0	0	0	0	22.0
2813	*Industrial Gases*	0	0	0	0	0	0	0	0	0	0	0.0
2816	*Inorganic Pigments*	W	W	0	0	141	0	0	0	0	0	21.6
2819	*Industrial Inorganic Chemicals, nec.*	588	292	283	0	260	29	W	W	0	W	24.3
2821	*Plastics Materials and Resins*	542	456	83	0	332	127	W	W	0	0	16.4
2822	*Synthetic Rubber*	W	W	0	0	49	14	0	14	0	0	39.3
2823	*Cellulosic Manmade Fibers*	0	0	0	0	0	0	0	0	0	0	0.0
2824	*Organic Fibers, Noncellulosic*	1,435	W	W	W	398	W	W	W	0	0	13.3
2861	*Gum and Wood Chemicals*	*	*	0	0	*	0	0	0	0	0	23.3
2865	*Cyclic Crudes and Intermediates*	W	568	957	0	514	228	0	*	0	Q	28.9
2869	*Industrial Organic Chemicals, nec.*	795	511	261	0	511	22	0	Q	0	40	21.9
2873	*Nitrogenous Fertilizers*	0	0	0	0	0	0	0	0	0	0	0.0
2874	*Phosphatic Fertilizers*	W	W	W	0	W	W	W	0	W	0	9.7
2895	*Carbon Black*	W	0	W	0	0	0	0	0	0	0	26.2
29	Petroleum and Coal Products	11,378	6,504	4,093	W	6,174	1,611	W	4,156	0	W	10.5
2911	*Petroleum Refining*	10,891	6,294	3,860	W	5,964	1,583	W	4,131	0	W	11.0
30	Rubber and Misc. Plastics Products	1,600	1,213	353	111	1,186	187	6	74	0	W	17.3
3011	*Tires and Inner Tubes*	720	718	W	W	718	47	0	W	0	W	12.3
308	*Miscellaneous Plastics Products, nec.*	497	257	240	2	243	32	6	5	0	Q	29.0
31	Leather and Leather Products	250	W	229	0	W	0	0	0	0	0	34.7
32	Stone, Clay and Glass Products	1,187	551	636	0	551	31	126	0	W	116	25.1
3211	*Flat Glass*	244	0	244	0	0	0	0	0	0	0	64.7
3221	*Glass Containers*	336	W	W	0	311	0	0	0	0	0	23.3
3229	*Pressed and Blown Glass, nec.*	W	0	W	0	0	0	0	0	0	0	30.8
3241	*Cement, Hydraulic*	158	123	35	0	123	6	123	0	W	113	40.1
3274	*Lime*	105	Q	Q	0	Q	0	Q	0	0	Q	60.6
3296	*Mineral Wool*	W	W	0	0	W	0	0	0	0	0	39.9
33	Primary Metal Industries	6,870	3,930	2,863	W	2,254	675	W	859	W	W	21.3
331	*Blast Furnace and Basic Steel Products*	6,680	3,823	2,790	W	2,179	W	W	853	W	W	21.6
3312	*Blast Furnaces and Steel Mills*	6,659	3,803	2,790	W	2,170	W	W	853	W	W	21.6
3313	*Electrometallurgical Products*	0	0	0	0	0	0	0	0	0	0	0.0
3321	*Gray and Ductile Iron Foundries*	Q	Q	*	0	Q	0	0	0	0	0	51.2
3331	*Primary Copper*	W	W	W	0	W	0	0	0	0	0	1.6
3334	*Primary Aluminum*	W	W	0	0	W	0	0	0	0	0	1.7
3339	*Primary Nonferrous Metals, nec.*	W	W	0	0	W	0	0	0	0	0	48.2
3353	*Aluminum Sheet, Plate, and Foil*	0	0	0	0	0	0	0	0	0	0	0.0
34	Fabricated Metal Products	478	375	70	105	352	261	0	W	W	80	35.3
35	Industrial Machinery and Equipment	W	202	220	0	173	47	Q	0	0	0	36.0
357	*Computer and Office Equipment*	W	0	*	0	0	0	0	0	0	0	67.8
36	Electronic and Other Electric Equipment	415	204	201	Q	155	W	W	37	W	Q	27.5

See footnotes at end of table.

Table A33. Capability to Switch from Residual Fuel Oil to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)

(Estimates in Thousand Barrels)

SIC Code[a]	Industry Group and Industry	Residual Fuel Oil			Alternative Types of Energy[b]							RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Natural Gas	Distillate Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.6	0.6	0.8	1.6	0.6	0.9	1.5	1.1	2.1	1.3	
37	Transportation Equipment	1,781	667	989	232	665	33	Q	Q	0	6	31.0
3711	*Motor Vehicles and Car Bodies*	300	66	234	0	66	0	0	*	0	0	53.3
3714	*Motor Vehicle Parts and Accessories*	W	38	0	0	38	Q	Q	Q	0	0	58.2
38	Instruments and Related Products	589	340	211	35	176	211	35	0	0	1	29.6
3841	*Surgical and Medical Instruments*	16	0	0	0	0	0	0	0	0	0	86.8
39	Misc. Manufacturing Industries	142	86	W	0	75	38	0	10	0	27	41.3
	Total	70,111	31,725	35,972	2,416	24,382	8,758	3,305	6,578	848	2,220	6.4
Census Region and Division												
Northeast		24,368	8,721	14,960	W	7,007	2,000	W	1,219	155	1,100	8.1
New England		13,730	3,110	10,200	606	1,922	1,136	W	217	W	533	13.9
Middle Atlantic		10,638	5,612	4,760	W	5,085	864	293	1,002	W	568	9.4
Midwest		11,969	8,205	3,356	202	6,362	2,653	1,699	3,938	W	Q	13.4
East North Central		W	6,556	3,257	202	4,739	2,335	W	3,383	W	Q	15.0
West North Central		W	1,650	99	0	1,623	317	W	554	0	13	13.0
South		28,003	12,570	14,560	1,278	9,554	2,977	932	806	W	698	8.4
South Atlantic		W	10,856	11,951	1,277	7,853	2,594	913	670	W	662	9.1
East South Central		W	1,329	843	1	1,326	383	W	136	1	36	15.9
West South Central		2,450	385	1,766	0	375	0	W	0	0	0	15.2
West		5,772	2,228	3,095	W	1,460	1,129	W	616	0	279	11.2
Mountain		1,162	745	409	W	660	400	0	393	0	0	14.1
Pacific		4,610	1,483	2,687	W	800	728	W	222	0	279	13.3
Total		70,111	31,725	35,972	2,416	24,382	8,758	3,305	6,578	848	2,220	6.4
Value of Shipments and Receipts[f] (million dollars)												
Under 20		3,495	1,208	1,599	W	1,100	493	124	168	W	W	16.1
20-49		6,092	2,674	3,191	93	2,268	1,141	115	317	W	460	15.2
50-99		7,731	3,167	4,226	W	2,210	1,069	310	205	W	277	11.9
100-249		14,410	5,214	8,738	398	4,518	1,301	476	708	W	129	8.3
250-499		19,258	8,051	10,716	1,454	5,183	2,360	469	1,204	70	925	9.5
500 and Over		19,126	11,410	7,501	314	9,103	2,392	1,811	3,976	W	W	11.6
Total		70,111	31,725	35,972	2,416	24,382	8,758	3,305	6,578	848	2,220	6.4
Employment Size[f]												
Under 50		1,223	273	814	Q	246	148	W	74	*	66	30.3
50-99		3,532	1,096	1,951	W	901	441	W	122	W	445	12.9
100-249		9,760	4,455	4,477	W	3,664	1,727	389	871	W	386	10.6
250-499		12,974	6,069	6,351	144	5,142	1,610	267	1,187	W	243	10.0
500-999		14,331	7,097	7,112	1,215	5,114	1,358	282	938	W	356	9.4
1,000 and Over		28,292	12,734	15,266	845	9,315	3,473	2,242	3,386	693	722	10.4
Total		70,111	31,725	35,972	2,416	24,382	8,758	3,305	6,578	848	2,220	6.4

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] "Alternative Types of Energy" consist of those energy sources that could have been substituted for residual fuel oil during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of residual fuel oil that could have been displaced by the given alternative type of energy.
[c] "Total Consumed" represents those quantities (Total Inputs) of residual fuel oil that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[d] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[e] *"Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of residual fuel oil.*
[f] Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A33. Number of Establishments by Capability to Switch from Residual Fuel Oil to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code[a]	Industry Group and Industry	Residual Fuel Oil[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Natural Gas	Distillate Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[f]	
	RSE Column Factors:	0.7	0.7	0.8	1.4	0.7	1.0	1.2	1.2	1.3	1.3	
20	Food and Kindred Products	575	308	200	8	268	89	26	47	0	35	18.2
2011	*Meat Packing Plants*	21	W	W	W	19	W	W	W	0	0	20.8
2033	*Canned Fruits and Vegetables*	53	28	20	0	26	15	W	0	0	W	26.1
2037	*Frozen Fruits and Vegetables*	Q	Q	Q	W	Q	0	0	0	0	W	0.0
2046	*Wet Corn Milling*	4	W	W	0	W	0	0	0	0	0	39.4
2051	*Bread, Cake, and Related Products*	13	13	0	0	5	0	0	W	0	0	62.0
2061	*Cane Sugar, Except Refining*	12	3	4	W	W	W	W	0	0	W	20.2
2062	*Cane Sugar Refining*	8	W	W	0	W	0	0	0	0	0	30.0
2063	*Beet Sugar*	13	10	W	0	10	W	0	0	0	0	5.0
2075	*Soybean Oil Mills*	13	12	0	W	12	5	0	W	0	W	1.0
2082	*Malt Beverages*	47	38	12	0	35	W	W	0	0	W	12.8
21	Tobacco Products	42	26	19	0	26	0	0	0	0	0	11.5
22	Textile Mill Products	441	245	139	W	234	60	13	21	0	W	25.0
23	Apparel and Other Textile Products	20	12	8	0	12	0	0	0	0	0	50.2
24	Lumber and Wood Products	83	Q	34	Q	W	Q	Q	Q	W	0	43.8
2421	*Sawmills and Planing Mills, General*	Q	Q	W	Q	Q	Q	Q	Q	W	0	45.2
2436	*Softwood Veneer and Plywood*	W	0	W	0	0	0	0	0	0	0	53.5
2493	*Reconstituted Wood Products*	Q	W	W	0	W	W	0	W	0	0	53.0
25	Furniture and Fixtures	43	Q	35	0	W	Q	W	0	0	0	34.1
2511	*Wood Furniture, Except Upholstered*	25	Q	18	0	0	Q	0	0	0	0	35.5
26	Paper and Allied Products	382	224	152	13	190	52	22	17	W	24	6.4
2611	*Pulp Mills*	26	12	15	0	10	W	W	0	0	W	11.3
2621	*Paper Mills*	153	84	75	3	65	22	9	3	0	9	6.0
2631	*Paperboard Mills*	101	74	40	7	66	20	12	8	W	12	3.4
27	Printing and Publishing	82	14	Q	0	14	5	0	6	0	0	26.2
28	Chemicals and Allied Products	340	253	93	6	221	81	10	22	W	13	11.2
2812	*Alkalies and Chlorine*	3	W	W	0	W	0	0	0	0	0	14.9
2813	*Industrial Gases*	0	0	0	0	0	0	0	0	0	0	0.0
2816	*Inorganic Pigments*	5	5	0	0	5	0	0	0	0	0	11.5
2819	*Industrial Inorganic Chemicals, nec.*	27	18	9	0	11	9	W	3	0	W	22.2
2821	*Plastics Materials and Resins*	49	42	8	0	39	7	W	W	0	0	15.1
2822	*Synthetic Rubber*	6	6	0	0	6	3	0	3	0	0	26.4
2823	*Cellulosic Manmade Fibers*	0	0	0	0	0	0	0	0	0	0	0.0
2824	*Organic Fibers, Noncellulosic*	23	22	W	W	19	7	W	W	0	0	7.5
2861	*Gum and Wood Chemicals*	W	W	0	0	W	0	0	0	0	0	17.2
2865	*Cyclic Crudes and Intermediates*	39	30	7	0	25	14	0	W	0	W	16.8
2869	*Industrial Organic Chemicals, nec.*	40	29	17	0	29	4	0	4	0	7	29.7
2873	*Nitrogenous Fertilizers*	0	0	0	0	0	0	0	0	0	0	0.0
2874	*Phosphatic Fertilizers*	5	3	4	0	W	W	W	0	W	0	7.2
2895	*Carbon Black*	4	0	4	0	0	0	0	0	0	0	16.1
29	Petroleum and Coal Products	117	76	43	W	74	25	W	43	0	3	18.5
2911	*Petroleum Refining*	72	52	29	W	49	9	W	29	0	3	5.7
30	Rubber and Misc. Plastics Products	208	151	59	8	148	26	W	12	0	Q	21.3
3011	*Tires and Inner Tubes*	32	32	W	3	32	4	0	5	0	W	15.5
308	*Miscellaneous Plastics Products, nec.*	114	80	41	3	78	16	W	5	0	Q	29.9
31	Leather and Leather Products	54	Q	20	0	Q	0	0	0	0	0	42.2
32	Stone, Clay and Glass Products	76	36	40	0	36	8	10	0	4	3	20.1
3211	*Flat Glass*	W	0	W	0	0	0	0	0	0	0	33.5
3221	*Glass Containers*	11	W	W	0	10	0	0	0	0	0	13.8
3229	*Pressed and Blown Glass, nec.*	W	0	W	0	0	0	0	0	0	0	56.2
3241	*Cement, Hydraulic*	11	7	4	0	7	4	7	0	4	W	21.1
3274	*Lime*	3	W	W	0	W	0	W	0	0	W	53.1
3296	*Mineral Wool*	W	W	0	0	W	0	0	0	0	0	12.9
33	Primary Metal Industries	88	51	21	W	45	9	3	7	3	W	15.3
331	*Blast Furnace and Basic Steel Products*	43	27	9	W	24	W	3	4	3	W	14.7
3312	*Blast Furnaces and Steel Mills*	26	18	9	W	17	W	3	3	W	W	12.4
3313	*Electrometallurgical Products*	0	0	0	0	0	0	0	0	0	0	0.0
3321	*Gray and Ductile Iron Foundries*	Q	Q	W	0	Q	0	0	0	0	0	60.8
3331	*Primary Copper*	W	W	W	0	W	0	0	0	0	0	1.4
3334	*Primary Aluminum*	W	W	0	0	W	0	0	0	0	0	14.4
3339	*Primary Nonferrous Metals, nec.*	W	W	0	0	W	0	0	0	0	0	47.4
3353	*Aluminum Sheet, Plate, and Foil*	0	0	0	0	0	0	0	0	0	0	0.0
34	Fabricated Metal Products	72	40	32	3	37	Q	0	3	W	4	27.7
35	Industrial Machinery and Equipment	97	30	49	0	26	6	W	0	0	0	28.6
357	*Computer and Office Equipment*	W	0	W	0	0	0	0	0	0	0	53.5
36	Electronic and Other Electric Equipment	65	41	19	W	28	18	Q	14	W	W	27.9

See footnotes at end of table.

Table A33. Number of Establishments by Capability to Switch from Residual Fuel Oil to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	Residual Fuel Oil[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Natural Gas	Distillate Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[f]	
	RSE Column Factors:	0.7	0.7	0.8	1.4	0.7	1.0	1.2	1.2	1.3	1.3	
37	Transportation Equipment	46	26	24	W	23	5	W	W	0	W	24.0
3711	*Motor Vehicles and Car Bodies*	W	W	W	0	W	0	0	W	0	0	0.0
3714	*Motor Vehicle Parts and Accessories*	5	5	0	0	5	W	W	W	0	0	45.9
38	Instruments and Related Products	Q	22	13	W	21	9	W	0	0	W	25.6
3841	*Surgical and Medical Instruments*	3	0	0	0	0	0	0	0	0	0	55.7
39	Misc. Manufacturing Industries	161	17	Q	0	15	3	0	W	0	W	31.0
	Total	3,080	1,656	1,107	103	1,496	464	150	246	Q	141	11.1

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] "Alternative Types of Energy" consist of those energy sources that could have been substituted for residual fuel oil during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of residual fuel oil that could have been displaced by the given alternative type of energy.
[d] "Total Consumed" represents those quantities (Total Inputs) of residual fuel oil that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[e] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[f] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of residual fuel oil.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A34. Number of Establishments that Actually Switched Fuels from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994

SIC Code[a]	Industry Group and Industry	Residual Fuel Oil Switchable to Natural Gas (1000 bbl)	Establishments					RSE Row Factors
			Total (counts)	Able to Switch		Actually Switched		
				(counts)	(percents)	(counts)	(percents)	
	RSE Column Factors:	1.5	0.1	1.4	1.5	1.6	1.7	
20	Food and Kindred Products	2,279	14,698	268	1.8	213	1.4	6.2
2011	*Meat Packing Plants*	124	759	19	2.5	10	1.3	9.9
2033	*Canned Fruits and Vegetables*	102	531	26	5.0	26	5.0	13.0
2037	*Frozen Fruits and Vegetables*	42	232	Q	1.7	W	W	14.4
2046	*Wet Corn Milling*	143	58	W	W	W	W	20.3
2051	*Bread, Cake, and Related Products*	2	1,303	5	0.4	5	0.4	22.8
2061	*Cane Sugar, Except Refining*	W	43	W	W	0	0.0	16.1
2062	*Cane Sugar Refining*	123	20	W	W	W	W	17.6
2063	*Beet Sugar*	247	41	10	25.0	7	16.7	3.1
2075	*Soybean Oil Mills*	136	95	12	12.2	7	7.3	1.0
2082	*Malt Beverages*	370	140	35	25.1	28	20.3	6.0
21	Tobacco Products	106	121	26	21.5	19	15.3	12.0
22	Textile Mill Products	884	4,428	234	5.3	147	3.3	10.6
23	Apparel and Other Textile Products	Q	18,019	12	Q	12	Q	20.9
24	Lumber and Wood Products	W	21,623	Q	Q	W	W	12.3
2421	*Sawmills and Planing Mills, General*	W	3,545	Q	Q	0	0.0	9.1
2436	*Softwood Veneer and Plywood*	0	182	0	0.0	0	0.0	9.1
2493	*Reconstituted Wood Products*	W	246	W	W	W	W	13.8
25	Furniture and Fixtures	4	7,691	W	W	0	0.0	20.3
2511	*Wood Furniture, Except Upholstered*	0	1,548	0	0.0	0	0.0	9.1
26	Paper and Allied Products	6,355	5,582	190	3.4	124	2.2	4.0
2611	*Pulp Mills*	567	55	10	18.8	7	12.5	8.5
2621	*Paper Mills*	1,301	310	65	21.0	40	12.8	3.5
2631	*Paperboard Mills*	3,989	219	66	30.0	45	20.5	2.1
27	Printing and Publishing	44	37,384	14	*	10	*	11.0
28	Chemicals and Allied Products	2,849	9,565	221	2.3	163	1.7	5.7
2812	*Alkalies and Chlorine*	W	44	W	W	0	0.0	9.0
2813	*Industrial Gases*	0	623	0	0.0	0	0.0	9.1
2816	*Inorganic Pigments*	141	81	5	6.6	3	3.3	7.4
2819	*Industrial Inorganic Chemicals, nec.*	260	568	11	1.9	8	1.4	8.6
2821	*Plastics Materials and Resins*	332	456	39	8.5	35	7.7	10.4
2822	*Synthetic Rubber*	49	63	6	10.3	6	10.3	12.2
2823	*Cellulosic Manmade Fibers*	0	11	0	0.0	0	0.0	9.1
2824	*Organic Fibers, Noncellulosic*	398	73	19	25.7	16	22.5	3.8
2861	*Gum and Wood Chemicals*	*	60	W	W	W	W	8.6
2865	*Cyclic Crudes and Intermediates*	514	187	25	13.6	18	9.7	8.1
2869	*Industrial Organic Chemicals, nec.*	511	631	29	4.6	17	2.7	12.9
2873	*Nitrogenous Fertilizers*	0	118	0	0.0	0	0.0	9.1
2874	*Phosphatic Fertilizers*	W	69	W	W	W	W	6.3
2895	*Carbon Black*	0	23	0	0.0	0	0.0	9.1
29	Petroleum and Coal Products	6,174	1,971	74	3.7	47	2.4	10.8
2911	*Petroleum Refining*	5,964	247	49	20.0	28	11.3	3.4
30	Rubber and Misc. Plastics Products	1,186	11,952	148	1.2	107	0.9	12.9
3011	*Tires and Inner Tubes*	718	112	32	28.5	27	24.5	7.5
308	*Miscellaneous Plastics Products, nec.*	243	9,967	78	0.8	66	Q	19.7
31	Leather and Leather Products	W	1,356	W	W	W	W	19.1
32	Stone, Clay and Glass Products	551	11,970	36	0.3	18	0.1	8.3
3211	*Flat Glass*	0	68	0	0.0	0	0.0	9.1
3221	*Glass Containers*	311	78	10	12.9	6	7.1	6.7
3229	*Pressed and Blown Glass, nec.*	0	163	0	0.0	0	0.0	9.1
3241	*Cement, Hydraulic*	123	190	7	3.7	5	2.8	13.7
3274	*Lime*	Q	84	W	W	W	W	25.9
3296	*Mineral Wool*	W	174	W	W	0	0.0	10.9
33	Primary Metal Industries	2,254	5,171	45	0.9	31	0.6	8.3
331	*Blast Furnace and Basic Steel Products*	2,179	981	24	2.5	17	1.7	6.8
3312	*Blast Furnaces and Steel Mills*	2,170	284	17	6.0	11	3.8	6.5
3313	*Electrometallurgical Products*	0	36	0	0.0	0	0.0	9.1
3321	*Gray and Ductile Iron Foundries*	Q	517	Q	Q	W	W	17.8
3331	*Primary Copper*	W	20	W	W	0	0.0	1.3
3334	*Primary Aluminum*	W	44	W	W	0	0.0	2.3
3339	*Primary Nonferrous Metals, nec.*	W	88	W	W	W	W	17.3
3353	*Aluminum Sheet, Plate, and Foil*	0	55	0	0.0	0	0.0	9.1
34	Fabricated Metal Products	352	26,262	37	0.1	24	0.1	16.0
35	Industrial Machinery and Equipment	173	33,837	26	0.1	18	0.1	14.0
357	*Computer and Office Equipment*	0	1,410	0	0.0	0	0.0	9.1
36	Electronic and Other Electric Equipment	155	11,264	28	0.3	20	0.2	10.7

See footnotes at end of table.

Table A34. Number of Establishments that Actually Switched Fuels from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Residual Fuel Oil Switchable to Natural Gas (1000 bbl)	Establishments					RSE Row Factors
			Total (counts)	Able to Switch		Actually Switched		
				(counts)	(percents)	(counts)	(percents)	
	RSE Column Factors:	1.5	0.1	1.4	1.5	1.6	1.7	
37	Transportation Equipment	665	7,240	23	0.3	16	0.2	10.5
3711	*Motor Vehicles and Car Bodies*	66	322	W	W	W	W	17.1
3714	*Motor Vehicle Parts and Accessories*	38	2,062	5	0.2	5	0.2	18.4
38	Instruments and Related Products	176	7,071	21	0.3	11	0.2	10.4
3841	*Surgical and Medical Instruments*	0	878	0	0.0	0	0.0	9.1
39	Misc. Manufacturing Industries	75	9,994	15	0.1	15	0.1	13.8
	Total	24,382	247,199	1,496	0.6	997	0.4	3.8

[a] *See Appendices B and F for descriptions of the Standard Industrial Classification system.*

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A35. Percent of Establishments by Primary Reasons for Actually Switching Fuels from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994

SIC Code[a]	Industry Group and Industry	Establishments that Actually Switched[b] (counts)	Reasons					RSE Row Factors
			Supply Shortage or Curtailment of Fuel	Down-Time Caused by Maintenance	Natural Gas Was Less Expensive	Environmental Restriction on Emissions or Waste	Other	
	RSE Column Factors:	0.7	1.6	1.3	0.4	1.2	1.6	
20	Food and Kindred Products	213	17.7	14.4	80.0	17.8	6.0	15.5
2011	*Meat Packing Plants*	10	0.0	0.0	80.0	0.0	W	19.4
2033	*Canned Fruits and Vegetables*	26	34.8	50.0	75.3	0.0	W	25.7
2037	*Frozen Fruits and Vegetables*	W	0.0	W	W	W	0.0	42.2
2046	*Wet Corn Milling*	W	0.0	0.0	W	W	0.0	48.4
2051	*Bread, Cake, and Related Products*	5	0.0	0.0	W	0.0	W	68.8
2061	*Cane Sugar, Except Refining*	0	0.0	0.0	0.0	0.0	0.0	0.0
2062	*Cane Sugar Refining*	W	0.0	0.0	W	0.0	0.0	39.6
2063	*Beet Sugar*	7	W	0.0	100.0	W	0.0	6.7
2075	*Soybean Oil Mills*	7	0.0	0.0	66.7	W	W	1.5
2082	*Malt Beverages*	28	W	W	66.0	38.5	W	13.2
21	Tobacco Products	19	0.0	W	74.4	0.0	W	30.6
22	Textile Mill Products	147	Q	2.8	79.1	13.2	Q	30.0
23	Apparel and Other Textile Products	12	0.0	0.0	100.0	0.0	0.0	55.8
24	Lumber and Wood Products	W	0.0	0.0	W	0.0	0.0	69.0
2421	*Sawmills and Planing Mills, General*	0	0.0	0.0	0.0	0.0	0.0	0.0
2436	*Softwood Veneer and Plywood*	0	0.0	0.0	0.0	0.0	0.0	0.0
2493	*Reconstituted Wood Products*	W	0.0	0.0	W	0.0	0.0	69.0
25	Furniture and Fixtures	0	0.0	0.0	0.0	0.0	0.0	0.0
2511	*Wood Furniture, Except Upholstered*	0	0.0	0.0	0.0	0.0	0.0	0.0
26	Paper and Allied Products	124	15.6	19.5	79.4	12.6	12.3	10.3
2611	*Pulp Mills*	7	0.0	0.0	75.0	0.0	W	19.0
2621	*Paper Mills*	40	6.5	16.1	71.0	12.9	12.9	9.2
2631	*Paperboard Mills*	45	23.1	25.6	87.2	12.8	10.3	3.4
27	Printing and Publishing	10	W	W	100.0	0.0	0.0	26.5
28	Chemicals and Allied Products	163	10.4	17.6	85.4	12.3	4.7	12.0
2812	*Alkalies and Chlorine*	0	0.0	0.0	0.0	0.0	0.0	0.0
2813	*Industrial Gases*	0	0.0	0.0	0.0	0.0	0.0	0.0
2816	*Inorganic Pigments*	3	0.0	0.0	100.0	0.0	0.0	16.1
2819	*Industrial Inorganic Chemicals, nec.*	8	W	40.0	60.0	0.0	0.0	17.3
2821	*Plastics Materials and Resins*	35	W	29.7	90.4	W	W	19.9
2822	*Synthetic Rubber*	6	0.0	W	100.0	0.0	0.0	28.8
2823	*Cellulosic Manmade Fibers*	0	0.0	0.0	0.0	0.0	0.0	0.0
2824	*Organic Fibers, Noncellulosic*	16	0.0	W	100.0	W	0.0	8.2
2861	*Gum and Wood Chemicals*	W	W	0.0	0.0	0.0	0.0	17.6
2865	*Cyclic Crudes and Intermediates*	18	W	0.0	90.4	19.2	0.0	16.5
2869	*Industrial Organic Chemicals, nec.*	17	46.5	28.9	68.2	29.7	16.6	26.3
2873	*Nitrogenous Fertilizers*	0	0.0	0.0	0.0	0.0	0.0	0.0
2874	*Phosphatic Fertilizers*	W	0.0	0.0	W	0.0	0.0	11.7
2895	*Carbon Black*	0	0.0	0.0	0.0	0.0	0.0	0.0
29	Petroleum and Coal Products	47	11.4	11.5	77.1	25.8	8.6	24.9
2911	*Petroleum Refining*	28	19.0	14.3	61.9	42.9	14.3	6.7
30	Rubber and Misc. Plastics Products	107	9.6	16.5	85.1	4.2	Q	30.6
3011	*Tires and Inner Tubes*	27	16.3	16.3	89.3	10.7	10.7	14.4
308	*Miscellaneous Plastics Products, nec.*	66	W	Q	85.1	W	W	38.1
31	Leather and Leather Products	W	0.0	0.0	0.0	0.0	W	61.6
32	Stone, Clay and Glass Products	18	W	34.5	92.4	0.0	0.0	17.4
3211	*Flat Glass*	0	0.0	0.0	0.0	0.0	0.0	0.0
3221	*Glass Containers*	6	0.0	0.0	100.0	0.0	0.0	14.7
3229	*Pressed and Blown Glass, nec.*	0	0.0	0.0	0.0	0.0	0.0	0.0
3241	*Cement, Hydraulic*	5	W	66.7	100.0	0.0	0.0	20.3
3274	*Lime*	W	0.0	W	0.0	0.0	0.0	71.9
3296	*Mineral Wool*	0	0.0	0.0	0.0	0.0	0.0	0.0
33	Primary Metal Industries	31	9.5	8.6	86.4	0.0	W	17.3
331	*Blast Furnace and Basic Steel Products*	17	W	W	81.5	0.0	W	17.4
3312	*Blast Furnaces and Steel Mills*	11	0.0	W	71.4	0.0	W	16.7
3313	*Electrometallurgical Products*	0	0.0	0.0	0.0	0.0	0.0	0.0
3321	*Gray and Ductile Iron Foundries*	W	0.0	0.0	W	0.0	0.0	0.0
3331	*Primary Copper*	0	0.0	0.0	0.0	0.0	0.0	0.0
3334	*Primary Aluminum*	0	0.0	0.0	0.0	0.0	0.0	0.0
3339	*Primary Nonferrous Metals, nec.*	W	0.0	W	0.0	0.0	0.0	48.4
3353	*Aluminum Sheet, Plate, and Foil*	0	0.0	0.0	0.0	0.0	0.0	0.0
34	Fabricated Metal Products	24	W	34.0	65.3	12.7	W	37.6
35	Industrial Machinery and Equipment	18	0.0	0.0	86.3	43.4	0.0	32.1
357	*Computer and Office Equipment*	0	0.0	0.0	0.0	0.0	0.0	0.0
36	Electronic and Other Electric Equipment	20	14.9	W	92.5	29.8	0.0	20.5

See footnotes at end of table.

Table A35. Percent of Establishments by Primary Reasons for Actually Switching Fuels from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Establishments that Actually Switched[b] (counts)	Reasons					RSE Row Factors
			Supply Shortage or Curtailment of Fuel	Down-Time Caused by Maintenance	Natural Gas Was Less Expensive	Environmental Restriction on Emissions or Waste	Other	
	RSE Column Factors:	0.7	1.6	1.3	0.4	1.2	1.6	
37	Transportation Equipment	16	W	W	96.2	33.7	0.0	21.1
3711	*Motor Vehicles and Car Bodies*	W	W	0.0	W	W	0.0	44.4
3714	*Motor Vehicle Parts and Accessories*	5	0.0	0.0	100.0	0.0	0.0	47.0
38	Instruments and Related Products	11	W	25.0	87.5	0.0	0.0	21.0
3841	*Surgical and Medical Instruments*	0	0.0	0.0	0.0	0.0	0.0	0.0
39	Misc. Manufacturing Industries	15	28.0	W	46.9	0.0	W	37.5
	Total	997	12.7	14.4	81.6	13.2	12.0	9.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Sum of component percents may exceed 100 percent because multiple responses, if applicable, were accepted.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A36. Percent of Establishments by Levels of Price Difference between Residual Fuel Oil and Less Expensive Natural Gas that Would Cause Fuel Switching from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994

SIC Code[a]	Industry Group and Industry	Establishments Able to Switch[b] (counts)	Levels of Price Difference[c] between Residual Fuel Oil and Less Expensive Natural Gas											RSE Row Factors
			1 - 5 Percent	6 - 10 Percent	11 - 15 Percent	16 - 20 Percent	21 - 30 Percent	31 - 40 Percent	41 - 50 Percent	Over 50 Percent	Would Not Switch Due to Price	Estimate Cannot Be Provided	Would Switch to More Expensive Substitute	
	RSE Column Factors:	0.4	0.7	0.9	1.1	1.1	1.4	1.4	2.4	0.0	1.0	0.6	1.1	
20	Food and Kindred Products	268	20.8	17.0	9.0	Q	0.0	0.0	Q	0.0	3.8	35.9	9.2	22.2
2011	*Meat Packing Plants*	19	20.9	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	31.4	W	28.8
2033	*Canned Fruits and Vegetables*	26	28.8	55.9	W	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	35.5
2037	*Frozen Fruits and Vegetables*	Q	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	25.6
2046	*Wet Corn Milling*	W	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.6
2051	*Bread, Cake, and Related Products*	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	67.6
2061	*Cane Sugar, Except Refining*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	64.7
2062	*Cane Sugar Refining*	W	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	60.2
2063	*Beet Sugar*	10	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	6.3
2075	*Soybean Oil Mills*	12	W	0.0	0.0	W	0.0	0.0	0.0	0.0	W	60.0	W	2.2
2082	*Malt Beverages*	35	0.0	19.5	0.0	0.0	0.0	0.0	0.0	0.0	W	W	45.5	31.2
21	Tobacco Products	26	W	W	0.0	0.0	0.0	W	0.0	0.0	W	W	0.0	37.3
22	Textile Mill Products	234	44.0	6.1	Q	0.0	W	0.0	0.0	0.0	W	35.4	6.0	32.2
23	Apparel and Other Textile Products	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	84.7
24	Lumber and Wood Products	Q	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	41.7
2421	*Sawmills and Planing Mills, General*	Q	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	39.7
2436	*Softwood Veneer and Plywood*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2493	*Reconstituted Wood Products*	W	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	104.8
25	Furniture and Fixtures	W	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.0
2511	*Wood Furniture, Except Upholstered*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	Paper and Allied Products	190	31.0	12.4	2.6	3.2	2.6	W	W	0.0	3.3	38.5	4.9	12.8
2611	*Pulp Mills*	10	W	0.0	0.0	0.0	0.0	W	0.0	0.0	0.0	50.0	W	24.5
2621	*Paper Mills*	65	29.4	5.9	3.9	5.9	W	0.0	W	0.0	7.8	39.2	3.9	12.9
2631	*Paperboard Mills*	66	40.3	10.5	W	W	W	0.0	0.0	0.0	W	33.4	W	7.2
27	Printing and Publishing	14	34.6	0.0	0.0	W	0.0	0.0	0.0	0.0	0.0	W	25.8	35.9
28	Chemicals and Allied Products	221	29.3	17.4	2.9	W	0.0	W	0.0	0.0	5.1	30.4	7.1	19.4
2812	*Alkalies and Chlorine*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	26.8
2813	*Industrial Gases*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2816	*Inorganic Pigments*	5	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	15.0
2819	*Industrial Inorganic Chemicals, nec.*	11	42.9	W	0.0	0.0	0.0	0.0	0.0	0.0	W	W	W	26.1
2821	*Plastics Materials and Resins*	39	28.0	30.4	9.5	0.0	0.0	0.0	0.0	0.0	0.0	19.0	13.1	36.6
2822	*Synthetic Rubber*	6	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	34.2
2823	*Cellulosic Manmade Fibers*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2824	*Organic Fibers, Noncellulosic*	19	56.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	18.8	W	10.1
2861	*Gum and Wood Chemicals*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	26.8
2865	*Cyclic Crudes and Intermediates*	25	49.2	13.6	0.0	0.0	0.0	0.0	0.0	0.0	13.1	24.0	0.0	24.6
2869	*Industrial Organic Chemicals, nec.*	29	27.0	33.2	W	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	46.4
2873	*Nitrogenous Fertilizers*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2874	*Phosphatic Fertilizers*	W	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8
2895	*Carbon Black*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	Petroleum and Coal Products	74	19.9	3.6	7.2	3.6	0.0	0.0	0.0	0.0	14.5	25.9	Q	29.0
2911	*Petroleum Refining*	49	29.7	5.4	8.1	5.4	0.0	0.0	0.0	0.0	21.6	24.3	5.4	9.9
30	Rubber and Misc. Plastics Products	148	26.1	10.5	W	0.0	0.0	W	0.0	W	0.0	52.6	W	41.5
3011	*Tires and Inner Tubes*	32	44.3	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.4	0.0	19.6
308	*Miscellaneous Plastics Products, nec.*	78	Q	Q	0.0	0.0	0.0	W	0.0	0.0	0.0	63.5	W	65.2
31	Leather and Leather Products	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	W	0.0	0.0
32	Stone, Clay and Glass Products	36	18.1	19.0	8.2	0.0	W	0.0	0.0	0.0	0.0	W	0.0	27.5
3211	*Flat Glass*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3221	*Glass Containers*	10	0.0	55.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	13.3
3229	*Pressed and Blown Glass, nec.*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3241	*Cement, Hydraulic*	7	W	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	40.0
3274	*Lime*	W	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.3
3296	*Mineral Wool*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	20.1
33	Primary Metal Industries	45	21.8	20.1	W	0.0	0.0	0.0	0.0	0.0	W	29.7	9.3	20.5
331	*Blast Furnace and Basic Steel Products*	24	31.2	31.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	19.2
3312	*Blast Furnaces and Steel Mills*	17	36.4	36.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	19.7
3313	*Electrometallurgical Products*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3321	*Gray and Ductile Iron Foundries*	Q	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	W	0.0	51.1
3331	*Primary Copper*	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2.2
3334	*Primary Aluminum*	W	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	22.3
3339	*Primary Nonferrous Metals, nec.*	W	W	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3353	*Aluminum Sheet, Plate, and Foil*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	Fabricated Metal Products	37	33.7	W	0.0	0.0	0.0	0.0	0.0	0.0	W	54.8	W	49.0
35	Industrial Machinery and Equipment	26	17.0	32.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.5	15.3	42.8
357	*Computer and Office Equipment*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	Electronic and Other Electric Equipment	28	37.8	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	Q	34.8

See footnotes at end of table.

Table A36. Percent of Establishments by Levels of Price Difference between Residual Fuel Oil and Less Expensive Natural Gas that Would Cause Fuel Switching from Residual Fuel Oil to Natural Gas, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Establishments Able to Switch[b] (counts)	Levels of Price Difference[c] between Residual Fuel Oil and Less Expensive Natural Gas											RSE Row Factors
			1 - 5 Percent	6 - 10 Percent	11 - 15 Percent	16 - 20 Percent	21 - 30 Percent	31 - 40 Percent	41 - 50 Percent	Over 50 Percent	Would Not Switch Due to Price	Estimate Cannot Be Provided	Would Switch to More Expensive Substitute	
	RSE Column Factors:	0.4	0.7	0.9	1.1	1.1	1.4	1.4	2.4	0.0	1.0	0.6	1.1	
37	Transportation Equipment	23	33.1	W	W	W	0.0	0.0	0.0	0.0	0.0	28.6	18.0	29.8
3711	*Motor Vehicles and Car Bodies*	W	W	0.0	0.0	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.1
3714	*Motor Vehicle Parts and Accessories*	5	W	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	W	0.0	62.4
38	Instruments and Related Products	21	54.6	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4	W	33.0
3841	*Surgical and Medical Instruments*	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	Misc. Manufacturing Industries	15	W	W	0.0	0.0	0.0	0.0	0.0	0.0	W	53.1	W	49.3
	Total	1,496	28.0	12.0	4.0	2.1	0.5	0.5	0.6	Q	6.3	37.0	7.3	15.6

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] These levels of price difference were guesstimates at which establishments perceived that they would switch. These levels were not actual values at which switching occurred. The percentage of price difference is computed as the quantity of (current fuel price minus alternative fuel price) divided by the current fuel price, expressed as a percent.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding. • Establishment percents may not equal 100 percent because of unknown and/or unreported fuel-switching guesstimate.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A37. Capability to Switch from Electricity to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Electricity Receipts			Alternative Types of Energy[b]							RSE Row Factors
		Total Receipts[c]	Switchable	Not Switchable	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[d]	
	RSE Column Factors:	0.2	0.8	0.3	1.0	1.2	1.4	1.4	1.4	3.8	1.4	
20	Food and Kindred Products	59,743	1,631	52,358	492	566	Q	8	111	Q	273	17.6
2011	*Meat Packing Plants*	3,924	50	3,617	0	50	0	0	0	0	0	37.2
2033	*Canned Fruits and Vegetables*	1,490	24	1,385	12	19	0	0	Q	0	0	32.2
2037	*Frozen Fruits and Vegetables*	2,901	9	2,768	3	9	3	0	3	0	0	30.8
2046	*Wet Corn Milling*	5,731	0	5,721	0	0	0	0	0	0	0	43.1
2051	*Bread, Cake, and Related Products*	2,436	*	2,277	0	0	0	0	0	0	0	31.4
2061	*Cane Sugar, Except Refining*	156	W	W	2	W	0	W	0	0	0	25.4
2062	*Cane Sugar Refining*	128	40	88	36	13	8	0	0	0	0	45.5
2063	*Beet Sugar*	437	0	436	0	0	0	0	0	0	0	11.8
2075	*Soybean Oil Mills*	1,866	W	1,727	0	W	0	W	0	0	0	1.6
2082	*Malt Beverages*	2,323	W	W	0	W	0	0	0	0	W	6.2
21	Tobacco Products	1,259	7	1,252	0	7	0	0	0	0	0	46.2
22	Textile Mill Products	32,692	77	31,675	Q	15	7	Q	7	0	Q	27.2
23	Apparel and Other Textile Products	7,748	Q	7,029	Q	*	0	Q	Q	0	0	45.0
24	Lumber and Wood Products	20,832	338	18,111	180	77	145	3	169	*	236	21.7
2421	*Sawmills and Planing Mills, General*	7,148	184	6,024	141	36	W	*	130	*	142	27.8
2436	*Softwood Veneer and Plywood*	2,766	Q	2,633	0	W	W	0	W	0	Q	23.2
2493	*Reconstituted Wood Products*	4,596	Q	4,359	Q	0	0	0	Q	0	Q	27.4
25	Furniture and Fixtures	6,678	96	5,991	Q	29	Q	0	16	0	20	28.8
2511	*Wood Furniture, Except Upholstered*	2,184	Q	2,050	Q	0	0	0	0	0	0	33.3
26	Paper and Allied Products	72,248	2,410	67,983	1,286	446	926	1,065	Q	W	818	8.7
2611	*Pulp Mills*	2,562	63	2,499	W	W	0	W	0	0	25	26.5
2621	*Paper Mills*	37,907	1,086	36,616	W	309	495	519	0	W	360	12.1
2631	*Paperboard Mills*	16,399	1,185	15,102	806	W	423	497	0	0	W	6.9
27	Printing and Publishing	17,410	306	15,494	92	105	Q	Q	Q	Q	Q	21.1
28	Chemicals and Allied Products	160,225	1,703	153,304	828	557	226	258	67	0	90	13.3
2812	*Alkalies and Chlorine*	13,703	0	13,703	0	0	0	0	0	0	0	15.7
2813	*Industrial Gases*	23,525	38	23,199	38	0	0	0	0	0	0	35.6
2816	*Inorganic Pigments*	2,393	W	2,345	*	W	0	*	*	0	0	21.2
2819	*Industrial Inorganic Chemicals, nec.*	42,861	298	42,077	116	72	Q	0	Q	0	W	29.7
2821	*Plastics Materials and Resins*	16,976	276	15,561	W	63	W	0	W	0	W	18.8
2822	*Synthetic Rubber*	2,476	20	2,452	0	20	0	0	0	0	0	47.9
2823	*Cellulosic Manmade Fibers*	437	W	W	W	W	0	W	0	0	0	1.5
2824	*Organic Fibers, Noncellulosic*	7,435	139	7,101	W	0	W	W	0	0	0	13.4
2861	*Gum and Wood Chemicals*	211	*	192	0	0	0	0	0	0	*	14.4
2865	*Cyclic Crudes and Intermediates*	4,794	Q	4,592	1	Q	1	0	0	0	1	31.3
2869	*Industrial Organic Chemicals, nec.*	22,537	290	20,546	166	158	W	112	0	0	32	14.9
2873	*Nitrogenous Fertilizers*	3,831	135	3,582	135	32	1	0	1	0	0	27.9
2874	*Phosphatic Fertilizers*	2,185	W	2,056	W	W	0	0	W	0	0	11.4
2895	*Carbon Black*	571	0	526	0	0	0	0	0	0	0	29.3
29	Petroleum and Coal Products	37,379	1,913	34,994	1,369	380	533	8	489	0	436	7.8
2911	*Petroleum Refining*	34,770	1,824	32,675	1,352	330	533	W	476	0	414	8.0
30	Rubber and Misc. Plastics Products	43,777	670	39,635	165	284	88	Q	119	Q	99	22.3
3011	*Tires and Inner Tubes*	4,664	2	4,567	2	1	0	0	0	0	0	26.8
308	*Miscellaneous Plastics Products, nec.*	33,989	572	30,437	157	215	88	Q	119	Q	99	24.9
31	Leather and Leather Products	827	Q	757	Q	Q	Q	*	Q	*	Q	41.1
32	Stone, Clay and Glass Products	36,026	403	34,458	265	169	35	32	223	29	35	14.9
3211	*Flat Glass*	1,468	1	1,467	0	0	0	0	0	0	1	39.4
3221	*Glass Containers*	4,268	50	4,119	50	W	0	0	W	0	0	15.8
3229	*Pressed and Blown Glass, nec.*	3,233	56	3,171	21	W	3	Q	16	Q	Q	14.9
3241	*Cement, Hydraulic*	10,789	9	10,658	3	9	3	3	0	0	0	29.9
3274	*Lime*	1,151	Q	1,086	0	Q	0	0	0	0	0	50.1
3296	*Mineral Wool*	3,401	W	W	W	0	0	0	W	0	0	24.4
33	Primary Metal Industries	149,593	1,977	143,622	1,602	551	1,331	W	235	Q	Q	13.5
331	*Blast Furnace and Basic Steel Products*	55,214	1,560	51,995	1,426	396	1,274	W	141	0	W	18.0
3312	*Blast Furnaces and Steel Mills*	45,463	1,470	42,971	1,391	348	1,273	W	114	0	W	17.8
3313	*Electrometallurgical Products*	4,797	Q	4,416	Q	Q	Q	0	*	0	0	135.1
3321	*Gray and Ductile Iron Foundries*	8,820	Q	8,437	Q	W	Q	0	Q	Q	0	27.4
3331	*Primary Copper*	1,581	W	W	0	W	0	0	0	0	0	2.0
3334	*Primary Aluminum*	56,657	0	56,623	0	0	0	0	0	0	0	3.9
3339	*Primary Nonferrous Metals, nec.*	4,205	*	4,132	*	0	0	0	*	0	0	30.3
3353	*Aluminum Sheet, Plate, and Foil*	4,835	W	4,562	W	0	0	0	*	0	0	14.1
34	Fabricated Metal Products	33,900	627	30,288	262	224	Q	W	Q	W	71	22.5
35	Industrial Machinery and Equipment	32,044	818	28,112	241	384	115	144	191	Q	172	24.0
357	*Computer and Office Equipment*	4,179	23	3,786	Q	Q	Q	0	Q	0	*	46.9
36	Electronic and Other Electric Equipment	33,152	1,052	30,449	62	503	Q	Q	Q	0	38	24.5

See footnotes at end of table.

Table A37. Capability to Switch from Electricity to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)

(Estimates in Million Kilowatthours)

SIC Code[a]	Industry Group and Industry	Electricity Receipts			Alternative Types of Energy[b]							RSE Row Factors
		Total Receipts[c]	Switchable	Not Switchable	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[d]	
	RSE Column Factors:	0.2	0.8	0.3	1.0	1.2	1.4	1.4	1.4	3.8	1.4	
37	Transportation Equipment	38,998	530	37,160	86	108	31	Q	20	Q	103	21.2
3711	*Motor Vehicles and Car Bodies*	8,863	Q	8,582	Q	0	0	0	Q	0	0	39.2
3714	*Motor Vehicle Parts and Accessories*	13,552	266	12,847	53	Q	Q	Q	Q	Q	Q	29.7
38	Instruments and Related Products	13,494	571	12,315	171	196	142	19	Q	Q	40	30.8
3841	*Surgical and Medical Instruments*	1,347	Q	1,250	3	3	0	0	3	0	0	33.1
39	Misc. Manufacturing Industries	5,575	115	5,255	Q	Q	Q	Q	Q	Q	Q	32.2
	Total	803,603	15,309	750,244	7,244	4,633	3,810	1,933	1,864	229	2,511	5.7
Census Region and Division												
	Northeast	96,282	2,484	89,123	933	1,085	1,007	313	420	110	523	10.4
	New England	22,262	634	20,235	131	370	370	231	75	Q	262	15.8
	Middle Atlantic	74,020	1,850	68,888	802	715	637	81	345	Q	260	13.5
	Midwest	239,503	5,062	221,381	2,524	1,659	1,626	492	688	Q	431	11.4
	East North Central	186,425	3,971	172,482	2,298	1,260	1,540	366	562	Q	305	13.6
	West North Central	53,077	1,091	48,899	226	399	87	126	127	Q	126	13.5
	South	346,626	5,879	325,098	2,942	1,246	913	1,068	318	21	1,090	7.4
	South Atlantic	133,150	2,399	124,793	758	606	485	639	84	Q	447	9.6
	East South Central	99,839	1,062	94,808	618	210	197	170	52	Q	222	16.0
	West South Central	113,636	2,418	105,497	1,566	430	230	259	182	Q	421	9.1
	West	121,193	1,884	114,642	844	643	264	61	438	Q	467	10.5
	Mountain	31,616	580	30,393	285	285	46	50	151	Q	50	13.4
	Pacific	89,577	1,304	84,249	560	357	219	Q	287	Q	418	11.9
	Total	803,603	15,309	750,244	7,244	4,633	3,810	1,933	1,864	229	2,511	5.7
Value of Shipments and Receipts [e]												
(million dollars)												
	Under 20	122,599	2,524	106,720	874	778	279	231	402	W	410	15.3
	20-49	122,772	1,736	112,211	556	752	111	52	266	19	141	15.3
	50-99	112,072	1,543	104,462	519	784	205	26	227	0	261	13.1
	100-249	165,001	2,772	157,262	1,366	574	654	464	390	0	481	8.8
	250-499	112,454	2,019	108,494	977	914	866	604	165	W	385	8.3
	500 and Over	168,706	4,715	161,094	2,952	829	1,695	556	415	0	833	9.1
	Total	803,603	15,309	750,244	7,244	4,633	3,810	1,933	1,864	229	2,511	5.7
Employment Size [e]												
	Under 50	63,443	986	55,697	330	330	104	121	159	76	203	19.6
	50-99	59,836	1,234	52,781	439	365	114	Q	145	Q	106	20.2
	100-249	153,862	2,322	142,008	844	1,064	191	134	434	W	280	15.1
	250-499	148,818	2,408	138,511	1,233	696	565	150	505	0	449	10.3
	500-999	168,201	3,169	160,132	1,789	888	748	641	375	0	440	7.5
	1,000 and Over	209,445	5,190	201,115	2,609	1,289	2,089	857	246	W	1,033	9.0
	Total	803,603	15,309	750,244	7,244	4,633	3,810	1,933	1,864	229	2,511	5.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Alternative Types of Energy" consist of those energy sources that could have been substituted for electricity receipts during 1994. The quantities are expressed in millions of kilowatthours, and therefore represent the quantity of electricity that could have been displaced by the given alternative type of energy.

[c] "Total Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

[d] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of electricity.

[e] Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A37. Number of Establishments by Capability to Switch from Electricity to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code[a]	Industry Group and Industry	Electricity Receipts[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Receipts[d]	Switchable	Not Switchable	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.1	1.3	0.2	1.4	1.6	1.5	1.4	1.9	2.9	1.9	
20	Food and Kindred Products	14,637	451	11,623	97	133	21	8	38	W	Q	18.9
2011	*Meat Packing Plants*	759	19	553	0	19	0	0	0	0	0	26.6
2033	*Canned Fruits and Vegetables*	531	24	408	W	7	0	0	W	0	0	23.9
2037	*Frozen Fruits and Vegetables*	231	W	226	W	W	W	0	W	0	0	11.5
2046	*Wet Corn Milling*	58	0	48	0	0	0	0	0	0	0	14.1
2051	*Bread, Cake, and Related Products*	1,303	W	1,042	0	0	0	0	0	0	0	27.1
2061	*Cane Sugar, Except Refining*	43	3	35	W	W	0	W	0	0	0	14.4
2062	*Cane Sugar Refining*	20	6	12	5	W	W	0	0	0	0	19.2
2063	*Beet Sugar*	41	0	40	0	0	0	0	0	0	0	8.2
2075	*Soybean Oil Mills*	92	3	81	0	W	0	W	0	0	0	1.9
2082	*Malt Beverages*	140	5	140	0	W	0	0	0	0	W	6.8
21	Tobacco Products	118	W	W	0	W	0	0	0	0	0	9.3
22	Textile Mill Products	4,427	W	W	Q	Q	W	W	Q	0	3	19.9
23	Apparel and Other Textile Products	17,754	105	14,931	66	W	0	W	59	0	0	19.9
24	Lumber and Wood Products	18,849	164	14,277	115	80	41	Q	44	W	87	22.8
2421	*Sawmills and Planing Mills, General*	3,191	79	2,738	Q	Q	W	W	W	W	Q	28.0
2436	*Softwood Veneer and Plywood*	182	5	175	0	W	W	0	W	0	5	8.9
2493	*Reconstituted Wood Products*	246	Q	233	W	0	0	0	W	0	W	16.3
25	Furniture and Fixtures	7,535	Q	6,052	Q	5	W	0	10	0	4	25.2
2511	*Wood Furniture, Except Upholstered*	1,543	W	1,359	W	0	0	0	0	0	0	18.3
26	Paper and Allied Products	5,547	106	4,557	39	18	31	25	4	W	38	11.2
2611	*Pulp Mills*	55	3	55	W	W	0	W	0	0	W	10.5
2621	*Paper Mills*	310	28	291	9	6	11	13	0	W	6	6.3
2631	*Paperboard Mills*	219	23	204	17	5	13	8	0	0	3	4.3
27	Printing and Publishing	37,335	457	31,031	203	52	Q	32	Q	W	4	18.5
28	Chemicals and Allied Products	9,553	279	8,588	174	124	14	14	38	0	26	14.2
2812	*Alkalies and Chlorine*	44	0	44	0	0	0	0	0	0	0	8.2
2813	*Industrial Gases*	617	W	607	W	0	0	0	0	0	0	11.5
2816	*Inorganic Pigments*	81	3	74	W	3	0	W	W	0	0	8.8
2819	*Industrial Inorganic Chemicals, nec.*	566	20	472	7	15	W	0	W	0	W	18.4
2821	*Plastics Materials and Resins*	456	12	393	5	7	W	0	W	0	W	11.0
2822	*Synthetic Rubber*	63	W	W	0	W	0	0	0	0	0	15.5
2823	*Cellulosic Manmade Fibers*	11	4	11	W	W	0	4	0	0	0	1.6
2824	*Organic Fibers, Noncellulosic*	73	5	65	W	0	W	4	0	0	0	8.0
2861	*Gum and Wood Chemicals*	60	W	49	0	0	0	0	0	0	W	7.9
2865	*Cyclic Crudes and Intermediates*	187	18	164	W	W	W	0	0	0	W	16.5
2869	*Industrial Organic Chemicals, nec.*	630	17	581	9	4	W	4	0	0	W	11.6
2873	*Nitrogenous Fertilizers*	117	5	113	5	W	W	0	W	0	0	13.5
2874	*Phosphatic Fertilizers*	68	W	55	W	W	0	0	W	0	0	6.1
2895	*Carbon Black*	23	0	20	0	0	0	0	0	0	0	11.5
29	Petroleum and Coal Products	1,959	171	1,704	89	89	19	7	76	0	Q	12.9
2911	*Petroleum Refining*	244	64	232	48	15	19	W	25	0	13	3.6
30	Rubber and Misc. Plastics Products	11,942	361	10,543	78	Q	Q	Q	Q	W	42	16.6
3011	*Tires and Inner Tubes*	112	W	106	W	W	0	0	0	0	0	17.2
308	*Miscellaneous Plastics Products, nec.*	9,957	338	8,869	75	Q	Q	Q	Q	W	42	16.9
31	Leather and Leather Products	1,356	58	1,231	Q	28	Q	W	26	W	Q	21.7
32	Stone, Clay and Glass Products	11,815	443	9,238	54	211	18	Q	54	Q	Q	20.9
3211	*Flat Glass*	68	W	64	0	0	0	0	0	0	W	13.5
3221	*Glass Containers*	78	6	74	6	W	0	0	W	0	0	8.8
3229	*Pressed and Blown Glass, nec.*	163	Q	117	Q	Q	Q	W	Q	W	Q	41.5
3241	*Cement, Hydraulic*	190	4	186	W	4	W	W	0	0	0	14.5
3274	*Lime*	83	W	77	0	W	0	0	0	0	0	19.9
3296	*Mineral Wool*	174	W	W	W	0	0	0	W	0	0	6.7
33	Primary Metal Industries	5,117	259	3,972	111	48	33	Q	70	W	Q	16.0
331	*Blast Furnace and Basic Steel Products*	981	42	824	25	15	11	W	14	0	4	15.5
3312	*Blast Furnaces and Steel Mills*	284	20	264	12	6	9	W	9	0	W	7.2
3313	*Electrometallurgical Products*	36	Q	29	Q	Q	W	0	W	0	0	28.3
3321	*Gray and Ductile Iron Foundries*	517	26	425	Q	Q	Q	0	Q	W	0	22.9
3331	*Primary Copper*	20	W	W	0	W	0	0	0	0	0	2.4
3334	*Primary Aluminum*	44	0	37	0	0	0	0	0	0	0	25.8
3339	*Primary Nonferrous Metals, nec.*	88	W	82	W	0	0	0	W	0	0	16.9
3353	*Aluminum Sheet, Plate, and Foil*	55	W	W	W	0	0	0	W	0	0	7.6
34	Fabricated Metal Products	26,251	740	21,700	499	281	Q	Q	249	Q	Q	19.5
35	Industrial Machinery and Equipment	33,655	1,364	27,175	381	337	170	Q	386	Q	Q	17.5
357	*Computer and Office Equipment*	1,381	Q	1,180	Q	Q	Q	0	Q	0	W	30.4
36	Electronic and Other Electric Equipment	11,254	525	9,730	77	148	W	W	16	0	W	20.7

See footnotes at end of table.

Table A37. Number of Establishments by Capability to Switch from Electricity to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	Electricity Receipts[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Receipts[d]	Switchable	Not Switchable	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.1	1.3	0.2	1.4	1.6	1.5	1.4	1.9	2.9	1.9	
37	Transportation Equipment	7,240	257	6,347	Q	35	Q	W	Q	W	13	21.3
3711	*Motor Vehicles and Car Bodies*	322	W	321	W	0	0	0	W	0	0	8.2
3714	*Motor Vehicle Parts and Accessories*	2,062	64	1,798	Q	10	W	W	Q	W	Q	25.6
38	Instruments and Related Products	7,059	567	5,851	Q	Q	Q	Q	Q	W	Q	21.0
3841	*Surgical and Medical Instruments*	878	Q	857	W	W	0	0	W	0	0	15.7
39	Misc. Manufacturing Industries	9,994	734	9,022	305	Q	Q	Q	Q	W	W	21.9
	Total	243,397	7,173	201,431	2,768	2,066	1,093	882	1,460	652	1,179	9.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] "Alternative Types of Energy" consist of those energy sources that could have been substituted for electricity receipts during 1994. The quantities are expressed in millions of kilowatthours, and therefore represent the quantity of electricity that could have been displaced by the given alternative type of energy.
[d] "Total Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[e] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of electricity.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A38. Capability to Switch from Distillate Fuel Oil to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1

(Estimates in Thousand Barrels)

SIC Code[a]	Industry Group and Industry	Distillate Fuel Oil			Alternative Types of Energy[b]							RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Natural Gas	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.5	0.7	0.6	1.4	0.7	1.1	1.2	1.1	2.2	1.4	
20	Food and Kindred Products	3,180	628	1,804	115	518	105	W	196	0	W	16.6
2011	*Meat Packing Plants*	101	10	85	0	10	*	0	*	0	Q	35.0
2033	*Canned Fruits and Vegetables*	119	27	51	*	24	W	0	Q	0	0	49.0
2037	*Frozen Fruits and Vegetables*	62	39	15	*	13	6	0	26	0	0	36.5
2046	*Wet Corn Milling*	10	2	6	0	2	0	0	0	0	0	42.0
2051	*Bread, Cake, and Related Products*	131	21	81	0	18	Q	0	Q	0	0	47.6
2061	*Cane Sugar, Except Refining*	220	52	107	0	W	0	0	W	0	W	28.2
2062	*Cane Sugar Refining*	97	10	86	0	10	0	0	0	0	0	61.0
2063	*Beet Sugar*	W	W	16	0	W	0	0	0	0	0	8.5
2075	*Soybean Oil Mills*	W	47	11	0	W	W	W	W	0	W	2.0
2082	*Malt Beverages*	21	W	9	W	W	W	W	0	0	0	2.7
21	Tobacco Products	W	3	15	0	3	0	0	0	0	0	62.4
22	Textile Mill Products	W	461	686	92	207	Q	Q	103	0	Q	35.5
23	Apparel and Other Textile Products	106	Q	68	*	8	Q	0	*	0	W	50.6
24	Lumber and Wood Products	3,793	129	2,127	Q	14	9	Q	Q	Q	Q	33.2
2421	*Sawmills and Planing Mills, General*	1,206	Q	706	Q	Q	Q	0	Q	0	Q	22.7
2436	*Softwood Veneer and Plywood*	251	Q	201	Q	0	W	0	Q	0	0	22.2
2493	*Reconstituted Wood Products*	W	Q	93	1	Q	0	0	1	0	Q	30.8
25	Furniture and Fixtures	153	40	99	*	29	0	Q	5	0	Q	39.0
2511	*Wood Furniture, Except Upholstered*	62	6	53	0	Q	0	0	0	0	Q	41.4
26	Paper and Allied Products	1,560	590	908	22	372	193	58	49	7	4	12.6
2611	*Pulp Mills*	W	W	154	0	W	*	0	*	0	0	30.4
2621	*Paper Mills*	744	366	353	W	193	136	58	19	W	0	14.8
2631	*Paperboard Mills*	W	91	219	W	W	44	0	19	0	W	7.9
27	Printing and Publishing	261	55	182	Q	53	11	0	9	0	0	23.9
28	Chemicals and Allied Products	2,201	635	1,448	12	538	67	W	40	0	41	12.6
2812	*Alkalies and Chlorine*	51	W	W	0	W	0	0	0	0	0	14.7
2813	*Industrial Gases*	W	0	Q	0	0	0	0	0	0	0	0.0
2816	*Inorganic Pigments*	W	30	26	0	30	0	0	W	0	0	15.1
2819	*Industrial Inorganic Chemicals, nec.*	W	61	192	*	49	W	0	Q	0	W	17.5
2821	*Plastics Materials and Resins*	186	91	89	W	70	0	0	*	0	Q	21.6
2822	*Synthetic Rubber*	15	2	13	*	*	0	0	2	0	0	45.1
2823	*Cellulosic Manmade Fibers*	23	W	W	0	W	0	0	W	0	0	1.4
2824	*Organic Fibers, Noncellulosic*	88	51	37	*	50	W	W	0	0	0	13.6
2861	*Gum and Wood Chemicals*	W	W	W	0	0	0	0	0	0	W	13.3
2865	*Cyclic Crudes and Intermediates*	204	60	131	0	60	Q	0	0	0	Q	38.3
2869	*Industrial Organic Chemicals, nec.*	317	65	224	W	44	26	W	7	0	0	22.7
2873	*Nitrogenous Fertilizers*	29	5	22	0	4	*	0	0	0	*	25.9
2874	*Phosphatic Fertilizers*	117	W	92	0	W	W	0	0	0	W	9.6
2895	*Carbon Black*	W	0	4	0	0	0	0	0	0	0	21.8
29	Petroleum and Coal Products	3,652	785	2,580	36	608	133	40	368	Q	W	18.2
2911	*Petroleum Refining*	1,159	352	759	0	282	92	W	159	0	W	14.9
30	Rubber and Misc. Plastics Products	540	169	337	6	129	52	15	19	Q	8	20.9
3011	*Tires and Inner Tubes*	115	52	Q	0	42	W	W	0	0	*	15.5
308	*Miscellaneous Plastics Products, nec.*	262	64	180	6	53	W	W	10	Q	Q	26.1
31	Leather and Leather Products	W	Q	37	0	Q	Q	0	Q	0	0	50.8
32	Stone, Clay and Glass Products	3,917	246	3,375	8	202	36	11	92	7	20	18.3
3211	*Flat Glass*	11	*	11	*	*	0	0	*	0	0	37.8
3221	*Glass Containers*	75	30	45	*	30	0	0	W	0	0	18.6
3229	*Pressed and Blown Glass, nec.*	57	44	9	W	44	Q	0	W	0	0	19.1
3241	*Cement, Hydraulic*	820	57	752	Q	17	20	6	W	Q	14	31.3
3274	*Lime*	251	Q	220	W	Q	Q	Q	Q	Q	Q	37.9
3296	*Mineral Wool*	9	*	9	0	*	0	0	*	0	0	41.2
33	Primary Metal Industries	2,126	302	1,725	8	266	52	*	29	14	44	16.5
331	*Blast Furnace and Basic Steel Products*	W	138	711	W	135	7	*	8	0	44	18.6
3312	*Blast Furnaces and Steel Mills*	W	134	651	W	134	W	0	8	0	W	17.5
3313	*Electrometallurgical Products*	21	0	19	0	0	0	0	0	0	0	68.2
3321	*Gray and Ductile Iron Foundries*	113	13	91	*	Q	0	0	1	0	*	35.0
3331	*Primary Copper*	W	W	W	0	W	0	0	0	0	0	1.6
3334	*Primary Aluminum*	125	W	123	W	W	0	0	W	0	0	1.4
3339	*Primary Nonferrous Metals, nec.*	W	W	W	0	W	0	0	5	0	0	25.8
3353	*Aluminum Sheet, Plate, and Foil*	W	W	56	W	8	0	0	W	0	0	10.2
34	Fabricated Metal Products	747	111	570	Q	96	13	4	28	0	Q	29.7
35	Industrial Machinery and Equipment	672	49	560	Q	46	Q	Q	24	Q	3	25.3
357	*Computer and Office Equipment*	23	13	9	0	13	*	0	1	0	0	50.2
36	Electronic and Other Electric Equipment	290	91	171	6	71	5	*	11	*	W	27.9

See footnotes at end of table.

Table A38. Capability to Switch from Distillate Fuel Oil to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)

(Estimates in Thousand Barrels)

SIC Code[a]	Industry Group and Industry	Distillate Fuel Oil			Alternative Types of Energy[b]							RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Natural Gas	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.5	0.7	0.6	1.4	0.7	1.1	1.2	1.1	2.2	1.4	
37	Transportation Equipment	1,123	267	796	66	165	2	5	Q	1	*	27.6
3711	*Motor Vehicles and Car Bodies*	81	17	Q	0	17	0	0	0	0	0	66.6
3714	*Motor Vehicle Parts and Accessories*	166	126	37	3	125	*	*	3	0	0	39.4
38	Instruments and Related Products	238	60	176	Q	50	3	*	13	*	3	26.5
3841	*Surgical and Medical Instruments*	13	1	11	0	1	0	0	1	0	0	45.0
39	Misc. Manufacturing Industries	209	49	153	Q	37	Q	0	Q	0	0	55.0
	Total	26,107	4,696	17,816	486	3,417	935	210	1,063	74	330	10.0
Census Region and Division												
Northeast		7,116	1,732	4,506	339	1,325	298	W	518	17	90	13.6
New England		2,483	588	1,671	239	340	124	Q	156	Q	19	16.2
Middle Atlantic		4,633	1,144	2,836	100	985	174	W	362	Q	Q	15.1
Midwest		4,034	542	3,082	W	473	36	95	99	W	W	16.3
East North Central		3,128	428	2,432	W	369	29	W	84	W	W	18.5
West North Central		905	114	650	Q	104	8	W	15	0	8	23.8
South		9,464	2,037	6,151	W	1,369	511	W	291	W	96	15.1
South Atlantic		5,884	1,399	3,855	W	902	W	W	260	W	W	17.3
East South Central		W	480	1,176	W	437	W	W	27	0	10	19.0
West South Central		W	158	1,121	Q	30	W	W	Q	14	W	19.9
West		5,493	384	4,076	Q	250	90	W	154	Q	W	17.0
Mountain		1,261	20	1,122	W	14	W	W	11	Q	W	15.2
Pacific		4,232	364	2,954	W	236	W	Q	144	0	W	19.6
Total		26,107	4,696	17,816	486	3,417	935	210	1,063	74	330	10.0
Value of Shipments and Receipts[f] (million dollars)												
Under 20		11,153	1,047	7,709	200	715	232	76	391	W	W	17.5
20-49		4,119	856	2,700	63	543	Q	9	168	5	109	19.1
50-99		3,160	750	2,150	40	573	149	11	124	14	113	15.8
100-249		2,346	699	1,427	Q	611	121	27	203	1	Q	11.8
250-499		2,516	711	1,721	38	469	164	Q	98	W	4	12.7
500 and Over		2,812	633	2,108	70	506	32	62	80	0	W	14.2
Total		26,107	4,696	17,816	486	3,417	935	210	1,063	74	330	10.0
Employment Size[f]												
Under 50		8,059	654	5,558	76	435	103	45	282	W	W	22.0
50-99		3,314	482	2,432	Q	381	170	Q	103	Q	146	20.3
100-249		5,136	1,035	3,506	26	678	Q	30	207	23	81	15.9
250-499		3,329	869	1,988	121	717	182	16	186	0	39	15.9
500-999		2,761	740	1,850	70	596	45	27	246	1	5	14.0
1,000 and Over		3,508	916	2,481	78	610	181	74	39	W	W	12.8
Total		26,107	4,696	17,816	486	3,417	935	210	1,063	74	330	10.0

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Alternative Types of Energy" consist of those energy sources that could have been substituted for distillate fuel oil during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of distillate fuel oil that could have been displaced by the given alternative type of energy.

[c] "Total Consumed" represents those quantities (Total Inputs) of distillate fuel oil that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

[d] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

[e] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of distillate fuel oil.

[f] Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A38. Number of Establishments by Capability to Switch from Distillate Fuel Oil to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code[a]	Industry Group and Industry	Distillate Fuel Oil[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Natural Gas	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[f]	
	RSE Column Factors:	0.4	0.9	0.5	1.4	0.9	1.2	1.2	1.2	1.9	1.4	
20	Food and Kindred Products	3,249	568	1,648	32	493	87	5	101	0	66	17.0
2011	*Meat Packing Plants*	144	58	111	0	58	W	0	W	0	Q	32.4
2033	*Canned Fruits and Vegetables*	97	34	65	W	31	17	0	5	0	0	27.9
2037	*Frozen Fruits and Vegetables*	Q	Q	Q	W	Q	W	0	W	0	0	0.0
2046	*Wet Corn Milling*	20	W	17	0	W	0	0	0	0	0	25.5
2051	*Bread, Cake, and Related Products*	250	23	45	0	13	13	0	W	0	0	48.9
2061	*Cane Sugar, Except Refining*	26	6	14	0	W	0	0	W	0	W	17.7
2062	*Cane Sugar Refining*	15	3	12	0	3	0	0	0	0	0	23.0
2063	*Beet Sugar*	30	W	24	0	W	0	0	0	0	0	5.3
2075	*Soybean Oil Mills*	38	11	21	0	11	W	W	W	0	W	1.6
2082	*Malt Beverages*	35	8	18	5	5	W	W	0	0	0	10.9
21	Tobacco Products	42	6	32	0	6	0	0	0	0	0	14.3
22	Textile Mill Products	668	254	328	22	160	34	11	Q	0	W	38.1
23	Apparel and Other Textile Products	876	54	723	6	33	21	0	6	0	21	40.0
24	Lumber and Wood Products	9,251	160	4,183	40	88	26	W	68	W	28	21.2
2421	*Sawmills and Planing Mills, General*	2,044	34	1,275	16	Q	W	0	W	0	W	29.7
2436	*Softwood Veneer and Plywood*	158	12	135	W	0	4	0	9	0	0	11.7
2493	*Reconstituted Wood Products*	100	Q	75	Q	Q	0	0	Q	0	W	97.1
25	Furniture and Fixtures	566	70	391	W	39	0	W	Q	0	18	37.3
2511	*Wood Furniture, Except Upholstered*	233	11	179	0	7	0	0	0	0	4	44.7
26	Paper and Allied Products	878	252	510	W	208	31	8	32	3	6	20.0
2611	*Pulp Mills*	38	7	29	0	5	W	0	W	0	0	11.5
2621	*Paper Mills*	166	33	130	3	26	5	6	4	W	0	7.8
2631	*Paperboard Mills*	102	21	86	W	15	6	0	6	0	W	4.7
27	Printing and Publishing	1,853	70	1,534	10	60	15	0	24	0	0	25.5
28	Chemicals and Allied Products	2,541	447	1,773	Q	331	33	6	60	0	86	17.3
2812	*Alkalies and Chlorine*	19	6	14	0	5	0	0	0	0	0	6.4
2813	*Industrial Gases*	10	0	10	0	0	0	0	0	0	0	47.5
2816	*Inorganic Pigments*	32	9	24	0	9	0	0	3	0	0	7.6
2819	*Industrial Inorganic Chemicals, nec.*	285	46	133	3	34	9	0	12	0	4	22.3
2821	*Plastics Materials and Resins*	160	41	99	5	30	0	0	W	0	6	16.0
2822	*Synthetic Rubber*	20	4	18	W	W	0	0	3	0	0	27.4
2823	*Cellulosic Manmade Fibers*	6	W	4	0	W	0	0	W	0	0	1.4
2824	*Organic Fibers, Noncellulosic*	33	14	23	W	12	W	W	0	0	0	7.5
2861	*Gum and Wood Chemicals*	38	W	19	0	0	0	0	0	0	W	4.9
2865	*Cyclic Crudes and Intermediates*	73	21	53	0	21	W	0	0	0	W	26.6
2869	*Industrial Organic Chemicals, nec.*	250	50	166	W	41	11	3	5	0	0	23.4
2873	*Nitrogenous Fertilizers*	51	8	34	0	5	W	0	0	0	W	16.6
2874	*Phosphatic Fertilizers*	46	3	35	0	W	W	0	0	0	W	5.3
2895	*Carbon Black*	12	0	10	0	0	0	0	0	0	0	12.9
29	Petroleum and Coal Products	783	110	569	4	79	28	6	48	Q	4	23.3
2911	*Petroleum Refining*	82	17	58	0	15	5	W	8	0	3	6.7
30	Rubber and Misc. Plastics Products	1,036	221	618	31	150	Q	8	24	W	7	24.1
3011	*Tires and Inner Tubes*	69	20	35	0	18	W	3	0	0	W	19.8
308	*Miscellaneous Plastics Products, nec.*	606	79	392	31	71	11	5	19	W	3	23.5
31	Leather and Leather Products	108	Q	82	0	Q	W	0	W	0	0	64.6
32	Stone, Clay and Glass Products	3,829	164	2,805	14	90	24	14	86	7	Q	20.8
3211	*Flat Glass*	43	4	39	W	4	0	0	W	0	0	14.9
3221	*Glass Containers*	30	7	21	W	7	0	0	W	0	0	11.4
3229	*Pressed and Blown Glass, nec.*	37	8	22	W	7	W	0	5	0	0	51.2
3241	*Cement, Hydraulic*	154	22	135	W	8	8	10	4	W	4	21.4
3274	*Lime*	68	W	56	W	W	W	W	W	W	W	30.4
3296	*Mineral Wool*	99	15	80	0	10	0	0	W	0	0	11.8
33	Primary Metal Industries	1,287	161	967	19	94	16	W	45	W	19	18.5
331	*Blast Furnace and Basic Steel Products*	315	47	252	W	31	3	W	8	0	Q	18.5
3312	*Blast Furnaces and Steel Mills*	152	25	134	W	23	W	0	5	0	W	8.8
3313	*Electrometallurgical Products*	18	0	16	0	0	0	0	0	0	0	52.8
3321	*Gray and Ductile Iron Foundries*	289	30	220	W	12	0	0	W	0	W	32.4
3331	*Primary Copper*	8	W	8	0	W	0	0	0	0	0	1.6
3334	*Primary Aluminum*	36	W	30	W	W	0	0	W	0	0	10.2
3339	*Primary Nonferrous Metals, nec.*	25	4	18	0	W	0	0	W	0	0	30.3
3353	*Aluminum Sheet, Plate, and Foil*	38	7	27	W	6	0	0	4	0	0	5.6
34	Fabricated Metal Products	2,924	408	1,968	216	334	20	3	240	0	Q	32.5
35	Industrial Machinery and Equipment	2,773	342	1,607	142	286	119	156	241	Q	5	30.4
357	*Computer and Office Equipment*	54	7	12	0	7	W	0	4	0	0	43.5
36	Electronic and Other Electric Equipment	721	154	516	29	73	3	W	19	W	Q	26.7

See footnotes at end of table.

Table A38. Number of Establishments by Capability to Switch from Distillate Fuel Oil to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	Distillate Fuel Oil[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Natural Gas	Residual Fuel Oil	Coal	LPG	Coal Coke and Breeze	Other[f]	
	RSE Column Factors:	0.4	0.9	0.5	1.4	0.9	1.2	1.2	1.2	1.9	1.4	
37	Transportation Equipment	811	87	614	16	47	6	3	41	W	W	25.5
3711	*Motor Vehicles and Car Bodies*	Q	W	Q	0	W	0	0	0	0	0	0.0
3714	*Motor Vehicle Parts and Accessories*	141	29	91	4	13	W	W	Q	0	0	32.1
38	Instruments and Related Products	866	Q	615	Q	Q	Q	W	Q	W	Q	63.2
3841	*Surgical and Medical Instruments*	24	3	20	0	3	0	0	W	0	0	41.9
39	Misc. Manufacturing Industries	856	115	711	Q	57	W	0	W	0	0	44.9
	Total	35,920	3,893	22,193	993	2,865	616	285	1,222	194	525	12.2

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] "Alternative Types of Energy" consist of those energy sources that could have been substituted for distillate fuel oil during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of distillate fuel oil that could have been displaced by the given alternative type of energy.
[d] "Total Consumed" represents those quantities (Total Inputs) of distillate fuel oil that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[e] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[f] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of distillate fuel oil.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A39. Capability to Switch from Coal to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1

(Estimates in Thousand Short Tons)

SIC Code[a]	Industry Group and Industry	Coal			Alternative Types of Energy[b]						RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	LPG	Other[e]	
	RSE Column Factors:	0.6	0.8	0.8	1.1	0.8	0.9	1.0	2.0	1.8	
20	Food and Kindred Products	7,500	3,330	4,142	325	2,672	853	816	520	2	12.8
2011	*Meat Packing Plants*	W	0	Q	0	0	0	0	0	0	0.0
2033	*Canned Fruits and Vegetables*	W	4	4	0	0	0	4	0	0	51.5
2037	*Frozen Fruits and Vegetables*	0	0	0	0	0	0	0	0	0	0.0
2046	*Wet Corn Milling*	3,556	1,503	2,054	49	1,423	106	0	446	2	24.7
2051	*Bread, Cake, and Related Products*	0	0	0	0	0	0	0	0	0	0.0
2061	*Cane Sugar, Except Refining*	W	W	0	0	W	0	0	0	0	40.4
2062	*Cane Sugar Refining*	0	0	0	0	0	0	0	0	0	0.0
2063	*Beet Sugar*	1,790	434	1,355	W	315	0	W	0	0	6.4
2075	*Soybean Oil Mills*	682	W	430	W	W	W	0	0	0	1.2
2082	*Malt Beverages*	789	694	95	W	377	W	W	0	0	10.1
21	Tobacco Products	W	203	373	0	57	0	182	0	0	33.9
22	Textile Mill Products	1,821	957	865	W	727	514	208	35	0	26.7
23	Apparel and Other Textile Products	W	Q	Q	0	W	Q	0	0	0	0.0
24	Lumber and Wood Products	W	W	W	Q	W	0	0	0	0	24.2
2421	*Sawmills and Planing Mills, General*	0	0	0	0	0	0	0	0	0	0.0
2436	*Softwood Veneer and Plywood*	0	0	0	0	0	0	0	0	0	0.0
2493	*Reconstituted Wood Products*	W	W	W	0	W	0	0	0	0	24.2
25	Furniture and Fixtures	115	74	40	*	49	7	Q	Q	33	32.3
2511	*Wood Furniture, Except Upholstered*	56	31	25	0	Q	Q	Q	Q	30	27.0
26	Paper and Allied Products	13,812	6,198	7,327	661	3,007	1,734	3,236	337	445	6.8
2611	*Pulp Mills*	328	W	225	0	W	W	10	0	89	30.6
2621	*Paper Mills*	8,783	3,851	4,646	371	1,991	1,302	1,514	W	W	10.0
2631	*Paperboard Mills*	4,552	2,166	2,386	290	935	421	1,712	W	W	5.4
27	Printing and Publishing	0	0	0	0	0	0	0	0	0	0.0
28	Chemicals and Allied Products	11,597	4,789	7,566	168	2,219	1,885	1,158	W	*	9.4
2812	*Alkalies and Chlorine*	W	W	W	0	W	0	0	0	0	18.6
2813	*Industrial Gases*	0	0	0	0	0	0	0	0	0	0.0
2816	*Inorganic Pigments*	W	*	W	0	*	0	0	*	0	19.5
2819	*Industrial Inorganic Chemicals, nec.*	1,451	234	1,217	0	209	35	W	W	0	21.2
2821	*Plastics Materials and Resins*	875	299	575	0	272	0	W	0	0	15.4
2822	*Synthetic Rubber*	W	91	100	0	47	44	0	0	0	52.3
2823	*Cellulosic Manmade Fibers*	W	W	W	W	W	W	0	0	0	1.2
2824	*Organic Fibers, Noncellulosic*	1,577	W	834	W	W	W	W	W	0	10.6
2861	*Gum and Wood Chemicals*	0	0	0	0	0	0	0	0	0	0.0
2865	*Cyclic Crudes and Intermediates*	W	W	131	0	21	21	0	0	0	42.2
2869	*Industrial Organic Chemicals, nec.*	4,178	1,306	2,820	W	1,071	818	W	0	0	16.6
2873	*Nitrogenous Fertilizers*	0	0	0	0	0	0	0	0	0	0.0
2874	*Phosphatic Fertilizers*	W	W	0	0	W	W	W	0	0	9.7
2895	*Carbon Black*	0	0	0	0	0	0	0	0	0	0.0
29	Petroleum and Coal Products	W	151	288	0	114	W	109	W	0	23.5
2911	*Petroleum Refining*	W	55	W	0	55	W	W	W	0	16.6
30	Rubber and Misc. Plastics Products	219	113	106	W	100	30	32	0	0	23.5
3011	*Tires and Inner Tubes*	81	43	W	W	Q	W	W	0	0	16.8
308	*Miscellaneous Plastics Products, nec.*	82	70	W	W	70	W	W	0	0	39.9
31	Leather and Leather Products	0	0	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	12,423	6,990	5,171	0	6,338	1,708	1,978	833	983	10.3
3211	*Flat Glass*	0	0	0	0	0	0	0	0	0	0.0
3221	*Glass Containers*	0	0	0	0	0	0	0	0	0	0.0
3229	*Pressed and Blown Glass, nec.*	0	0	0	0	0	0	0	0	0	0.0
3241	*Cement, Hydraulic*	9,174	5,173	3,958	0	4,520	1,380	1,755	579	703	11.0
3274	*Lime*	2,980	1,735	1,087	0	1,735	285	182	202	Q	24.2
3296	*Mineral Wool*	0	0	0	0	0	0	0	0	0	0.0
33	Primary Metal Industries	2,327	1,858	469	W	1,540	W	109	W	W	23.8
331	*Blast Furnace and Basic Steel Products*	1,771	W	279	0	W	W	109	W	W	26.4
3312	*Blast Furnaces and Steel Mills*	1,598	1,486	113	0	1,486	W	109	W	W	23.4
3313	*Electrometallurgical Products*	Q	0	W	0	0	0	0	0	0	0.0
3321	*Gray and Ductile Iron Foundries*	5	0	5	0	0	0	0	0	0	41.2
3331	*Primary Copper*	W	W	W	0	W	0	0	0	0	1.4
3334	*Primary Aluminum*	0	0	0	0	0	0	0	0	0	0.0
3339	*Primary Nonferrous Metals, nec.*	361	W	W	W	0	0	0	0	0	35.9
3353	*Aluminum Sheet, Plate, and Foil*	W	0	W	0	0	0	0	0	0	20.6
34	Fabricated Metal Products	W	70	147	W	69	56	15	0	0	34.4
35	Industrial Machinery and Equipment	484	193	276	0	140	66	48	48	0	28.1
357	*Computer and Office Equipment*	0	0	0	0	0	0	0	0	0	0.0
36	Electronic and Other Electric Equipment	W	11	87	0	11	5	5	0	W	35.1

See footnotes at end of table.

Table A39. Capability to Switch from Coal to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)

(Estimates in Thousand Short Tons)

SIC Code[a]	Industry Group and Industry	Coal			Alternative Types of Energy[b]						RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	LPG	Other[e]	
	RSE Column Factors:	0.6	0.8	0.8	1.1	0.8	0.9	1.0	2.0	1.8	
37	Transportation Equipment	1,245	282	963	0	269	35	21	Q	0	30.2
3711	*Motor Vehicles and Car Bodies*	571	182	389	0	182	0	0	0	0	40.2
3714	*Motor Vehicle Parts and Accessories*	444	85	359	0	72	20	21	Q	0	33.2
38	Instruments and Related Products	1,065	700	364	W	0	189	463	0	0	49.0
3841	*Surgical and Medical Instruments*	0	0	0	0	0	0	0	0	0	0.0
39	Misc. Manufacturing Industries	37	9	0	0	W	0	0	0	0	59.6
	Total	54,143	24,943	28,335	1,621	17,334	7,174	8,385	1,926	1,507	5.7
Census Region and Division											
Northeast		5,775	2,264	3,434	418	705	494	976	Q	220	17.0
New England		715	293	374	0	40	135	135	0	220	24.7
Middle Atlantic		5,060	1,971	3,061	418	664	358	840	Q	0	19.7
Midwest		18,418	7,925	9,834	221	6,509	1,985	949	1,035	339	10.4
East North Central		12,339	5,466	6,265	167	4,465	1,572	721	862	85	10.0
West North Central		6,079	2,459	3,569	54	2,044	413	229	173	254	18.6
South		23,986	11,187	12,724	836	7,328	3,328	4,923	725	878	7.0
South Atlantic		13,141	6,575	6,492	683	3,100	2,123	3,691	380	549	8.5
East South Central		W	2,513	5,133	W	2,303	642	642	W	146	12.8
West South Central		W	2,099	1,099	W	1,925	563	589	W	182	20.5
West		5,965	3,567	2,342	146	2,792	1,367	1,538	112	70	12.4
Mountain		W	2,138	1,439	146	1,576	964	547	112	26	13.4
Pacific		W	1,429	903	0	1,216	403	991	0	45	21.3
Total		54,143	24,943	28,335	1,621	17,334	7,174	8,385	1,926	1,507	5.7
Value of Shipments and Receipts[f] (million dollars)											
Under 20		3,111	1,304	1,536	Q	1,248	407	301	289	W	15.5
20-49		7,540	3,392	4,025	Q	2,931	896	980	379	333	12.5
50-99		7,278	3,432	3,728	50	2,738	822	1,226	202	391	13.0
100-249		11,475	5,171	5,979	679	3,346	1,518	1,492	152	261	11.7
250-499		12,658	6,232	6,398	492	3,540	1,795	2,308	787	392	9.1
500 and Over		12,082	5,413	6,669	399	3,531	1,737	2,077	117	W	12.2
Total		54,143	24,943	28,335	1,621	17,334	7,174	8,385	1,926	1,507	5.7
Employment Size[f]											
Under 50		1,045	464	399	0	432	141	121	W	*	29.5
50-99		2,901	1,170	1,637	W	979	337	290	W	97	13.0
100-249		14,306	6,478	7,681	W	5,600	1,843	1,789	664	691	9.2
250-499		7,694	3,166	4,438	139	1,971	784	1,170	159	37	11.5
500-999		9,841	4,964	4,626	739	3,331	1,280	1,214	530	387	11.4
1,000 and Over		18,356	8,700	9,554	682	5,021	2,789	3,803	375	296	8.5
Total		54,143	24,943	28,335	1,621	17,334	7,174	8,385	1,926	1,507	5.7

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Alternative Types of Energy" consist of those energy sources that could have been substituted for coal during 1994. The quantities are expressed in thousands of short tons, and therefore represent the quantity of coal that could have been displaced by the given alternative type of energy.

[c] "Total Consumed" represents those quantities (Total Inputs) of coal that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

[d] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

[e] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of coal.

[f] Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A39. Number of Establishments by Capability to Switch from Coal to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code[a]	Industry Group and Industry	Coal[b]			Alternative Types of Energy[c]						RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	LPG	Other[f]	
	RSE Column Factors:	0.7	0.8	0.8	1.1	0.8	1.0	1.0	1.6	1.5	
20	Food and Kindred Products	173	101	106	13	80	39	31	Q	W	13.9
2011	*Meat Packing Plants*	W	0	W	0	0	0	0	0	0	0.0
2033	*Canned Fruits and Vegetables*	W	W	W	0	0	0	W	0	0	37.5
2037	*Frozen Fruits and Vegetables*	0	0	0	0	0	0	0	0	0	0.0
2046	*Wet Corn Milling*	20	17	11	W	16	4	0	W	W	16.1
2051	*Bread, Cake, and Related Products*	0	0	0	0	0	0	0	0	0	0.0
2061	*Cane Sugar, Except Refining*	W	W	0	0	W	0	0	0	0	37.9
2062	*Cane Sugar Refining*	0	0	0	0	0	0	0	0	0	0.0
2063	*Beet Sugar*	28	9	24	W	7	0	W	0	0	3.9
2075	*Soybean Oil Mills*	18	9	12	W	7	W	0	0	0	1.2
2082	*Malt Beverages*	33	30	14	7	23	14	12	0	0	18.3
21	Tobacco Products	31	13	21	0	6	0	W	0	0	11.3
22	Textile Mill Products	85	43	43	W	32	12	20	W	0	31.0
23	Apparel and Other Textile Products	5	W	W	0	W	W	0	0	0	52.8
24	Lumber and Wood Products	8	7	W	W	W	0	0	0	0	58.4
2421	*Sawmills and Planing Mills, General*	0	0	0	0	0	0	0	0	0	0.0
2436	*Softwood Veneer and Plywood*	0	0	0	0	0	0	0	0	0	0.0
2493	*Reconstituted Wood Products*	W	W	W	0	W	0	0	0	0	61.4
25	Furniture and Fixtures	85	56	32	W	19	13	10	W	51	29.7
2511	*Wood Furniture, Except Upholstered*	62	42	20	0	10	10	W	W	40	36.2
26	Paper and Allied Products	173	104	108	21	69	37	49	5	13	6.0
2611	*Pulp Mills*	7	3	5	0	W	W	W	0	W	16.6
2621	*Paper Mills*	80	52	51	11	37	20	19	W	4	6.6
2631	*Paperboard Mills*	57	43	26	9	25	13	28	W	7	3.9
27	Printing and Publishing	0	0	0	0	0	0	0	0	0	0.0
28	Chemicals and Allied Products	125	78	74	10	55	32	21	4	W	7.3
2812	*Alkalies and Chlorine*	3	W	3	0	W	0	0	0	0	12.5
2813	*Industrial Gases*	0	0	0	0	0	0	0	0	0	0.0
2816	*Inorganic Pigments*	5	W	W	0	W	0	0	W	0	13.8
2819	*Industrial Inorganic Chemicals, nec.*	13	7	8	0	5	4	W	W	0	19.7
2821	*Plastics Materials and Resins*	15	12	10	0	10	0	3	0	0	11.5
2822	*Synthetic Rubber*	4	3	3	0	3	W	0	0	0	37.6
2823	*Cellulosic Manmade Fibers*	4	4	3	W	W	W	0	0	0	1.2
2824	*Organic Fibers, Noncellulosic*	13	11	6	5	5	7	W	W	0	7.7
2861	*Gum and Wood Chemicals*	0	0	0	0	0	0	0	0	0	0.0
2865	*Cyclic Crudes and Intermediates*	5	W	W	0	W	W	0	0	0	25.6
2869	*Industrial Organic Chemicals, nec.*	24	15	12	W	13	9	W	0	0	15.8
2873	*Nitrogenous Fertilizers*	0	0	0	0	0	0	0	0	0	0.0
2874	*Phosphatic Fertilizers*	4	4	0	0	W	W	W	0	0	7.4
2895	*Carbon Black*	0	0	0	0	0	0	0	0	0	0.0
29	Petroleum and Coal Products	15	10	4	0	9	3	4	W	0	18.7
2911	*Petroleum Refining*	5	4	3	0	4	3	W	W	0	11.9
30	Rubber and Misc. Plastics Products	23	14	12	5	11	6	5	0	0	23.3
3011	*Tires and Inner Tubes*	8	7	3	W	5	W	W	0	0	21.4
308	*Miscellaneous Plastics Products, nec.*	6	6	W	3	5	3	3	0	0	25.3
31	Leather and Leather Products	0	0	0	0	0	0	0	0	0	0.0
32	Stone, Clay and Glass Products	233	125	99	0	116	37	36	18	30	9.8
3211	*Flat Glass*	0	0	0	0	0	0	0	0	0	0.0
3221	*Glass Containers*	0	0	0	0	0	0	0	0	0	0.0
3229	*Pressed and Blown Glass, nec.*	0	0	0	0	0	0	0	0	0	0.0
3241	*Cement, Hydraulic*	150	92	63	0	83	28	30	12	27	11.5
3274	*Lime*	46	27	16	0	27	7	4	4	W	16.5
3296	*Mineral Wool*	0	0	0	0	0	0	0	0	0	0.0
33	Primary Metal Industries	78	13	63	W	10	5	5	W	W	17.4
331	*Blast Furnace and Basic Steel Products*	31	11	21	0	9	5	5	W	W	14.3
3312	*Blast Furnaces and Steel Mills*	23	8	14	0	8	3	3	W	W	12.1
3313	*Electrometallurgical Products*	Q	0	Q	0	0	0	0	0	0	0.0
3321	*Gray and Ductile Iron Foundries*	Q	0	Q	0	0	0	0	0	0	0.0
3331	*Primary Copper*	W	W	W	0	W	0	0	0	0	1.3
3334	*Primary Aluminum*	0	0	0	0	0	0	0	0	0	0.0
3339	*Primary Nonferrous Metals, nec.*	W	W	W	W	0	0	0	0	0	37.1
3353	*Aluminum Sheet, Plate, and Foil*	W	0	W	0	0	0	0	0	0	15.6
34	Fabricated Metal Products	64	20	13	Q	9	Q	W	0	0	39.4
35	Industrial Machinery and Equipment	Q	7	Q	0	6	W	W	W	0	25.3
357	*Computer and Office Equipment*	0	0	0	0	0	0	0	0	0	0.0
36	Electronic and Other Electric Equipment	12	4	9	0	4	W	W	0	W	27.8

See footnotes at end of table.

Table A39. Number of Establishments by Capability to Switch from Coal to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	Coal[b]			Alternative Types of Energy[c]						RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	LPG	Other[f]	
	RSE Column Factors:	0.7	0.8	0.8	1.1	0.8	1.0	1.0	1.6	1.5	
37	Transportation Equipment	31	15	26	0	14	6	5	W	0	28.6
3711	*Motor Vehicles and Car Bodies*	Q	W	Q	0	W	0	0	0	0	0.0
3714	*Motor Vehicle Parts and Accessories*	21	12	17	0	11	5	5	W	0	27.3
38	Instruments and Related Products	Q	W	Q	W	0	W	W	0	0	39.9
3841	*Surgical and Medical Instruments*	0	0	0	0	0	0	0	0	0	0.0
39	Misc. Manufacturing Industries	3	W	0	0	W	0	0	0	0	40.1
	Total	1,397	616	862	72	445	213	199	51	99	8.5

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] "Alternative Types of Energy" consist of those energy sources that could have been substituted for coal during 1994. The quantities are expressed in thousands of short tons, and therefore represent the quantity of coal that could have been displaced by the given alternative type of energy.
[d] "Total Consumed" represents those quantities (Total Inputs) of coal that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[e] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[f] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of coal.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A40. Capability to Switch from LPG to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1

(Estimates in Thousand Barrels)

SIC Code[a]	Industry Group and Industry	LPG			Alternative Types of Energy[b]							RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.4	0.6	0.5	1.1	0.7	1.1	1.2	2.8	2.2	1.1	
20	Food and Kindred Products	1,707	437	908	49	318	98	27	*	1	13	20.4
2011	*Meat Packing Plants*	W	Q	99	*	Q	Q	0	0	0	Q	41.6
2033	*Canned Fruits and Vegetables*	W	26	77	14	11	6	0	0	0	*	24.8
2037	*Frozen Fruits and Vegetables*	74	29	30	3	2	24	0	0	0	Q	38.2
2046	*Wet Corn Milling*	9	0	8	0	0	0	0	0	0	0	72.8
2051	*Bread, Cake, and Related Products*	89	49	5	*	W	Q	Q	0	0	0	69.5
2061	*Cane Sugar, Except Refining*	W	*	W	0	0	*	0	0	0	0	35.9
2062	*Cane Sugar Refining*	4	*	4	0	*	0	0	0	0	0	67.6
2063	*Beet Sugar*	W	W	W	0	W	0	0	0	0	0	9.2
2075	*Soybean Oil Mills*	W	W	W	0	W	*	*	0	0	W	1.3
2082	*Malt Beverages*	W	W	W	0	Q	0	0	0	0	0	16.0
21	Tobacco Products	W	Q	15	Q	0	0	0	0	0	Q	56.7
22	Textile Mill Products	W	232	663	14	207	18	6	0	0	W	36.3
23	Apparel and Other Textile Products	W	11	98	Q	7	Q	W	0	0	Q	58.6
24	Lumber and Wood Products	W	109	794	28	53	31	Q	Q	4	21	21.7
2421	*Sawmills and Planing Mills, General*	W	7	61	*	Q	1	0	0	0	W	38.2
2436	*Softwood Veneer and Plywood*	168	19	131	0	W	W	0	0	0	5	21.4
2493	*Reconstituted Wood Products*	W	14	341	W	W	W	0	0	0	W	20.7
25	Furniture and Fixtures	211	31	145	7	15	6	Q	0	0	7	30.1
2511	*Wood Furniture, Except Upholstered*	59	Q	45	*	*	Q	Q	0	0	1	33.5
26	Paper and Allied Products	1,315	174	969	12	84	71	Q	Q	Q	15	17.3
2611	*Pulp Mills*	W	5	65	0	4	*	0	0	0	0	34.5
2621	*Paper Mills*	465	73	375	0	10	58	0	0	0	7	21.6
2631	*Paperboard Mills*	W	17	84	W	14	4	0	0	0	2	7.7
27	Printing and Publishing	W	89	207	7	64	3	*	0	0	10	33.6
28	Chemicals and Allied Products	W	412	639	19	392	17	67	0	0	19	30.1
2812	*Alkalies and Chlorine*	1	*	1	0	*	0	0	0	0	0	17.6
2813	*Industrial Gases*	W	0	1	0	0	0	0	0	0	0	77.1
2816	*Inorganic Pigments*	W	8	7	*	8	0	0	0	0	0	16.9
2819	*Industrial Inorganic Chemicals, nec.*	W	20	18	1	18	4	W	0	0	0	29.0
2821	*Plastics Materials and Resins*	W	57	42	2	54	1	Q	0	0	0	41.2
2822	*Synthetic Rubber*	W	1	4	*	*	*	0	0	0	*	39.9
2823	*Cellulosic Manmade Fibers*	W	*	*	*	*	*	0	0	0	0	1.4
2824	*Organic Fibers, Noncellulosic*	W	W	30	W	W	*	W	0	0	W	16.6
2861	*Gum and Wood Chemicals*	W	0	W	0	0	0	0	0	0	0	15.0
2865	*Cyclic Crudes and Intermediates*	279	Q	W	0	W	0	W	0	0	Q	107.5
2869	*Industrial Organic Chemicals, nec.*	265	242	16	W	234	*	0	0	0	W	26.2
2873	*Nitrogenous Fertilizers*	4	1	3	W	1	0	0	0	0	0	34.3
2874	*Phosphatic Fertilizers*	3	*	3	*	0	0	0	0	0	0	14.2
2895	*Carbon Black*	W	0	*	0	0	0	0	0	0	0	55.7
29	Petroleum and Coal Products	11,719	7,741	3,752	72	6,655	957	1,448	Q	Q	W	14.5
2911	*Petroleum Refining*	W	7,444	3,589	W	6,453	669	W	0	0	W	12.6
30	Rubber and Misc. Plastics Products	824	103	660	37	42	26	Q	*	0	12	23.8
3011	*Tires and Inner Tubes*	95	5	87	W	W	0	0	0	0	0	14.7
308	*Miscellaneous Plastics Products, nec.*	632	78	504	W	W	26	Q	*	0	11	27.0
31	Leather and Leather Products	W	Q	16	1	Q	*	W	0	0	0	44.7
32	Stone, Clay and Glass Products	1,057	319	706	11	226	Q	6	Q	0	11	30.1
3211	*Flat Glass*	20	2	18	1	2	*	0	0	0	0	41.5
3221	*Glass Containers*	98	56	38	0	54	W	*	0	0	W	18.4
3229	*Pressed and Blown Glass, nec.*	W	17	21	*	16	W	5	0	0	0	28.7
3241	*Cement, Hydraulic*	9	*	8	*	*	*	*	0	0	*	36.1
3274	*Lime*	5	0	5	0	0	0	0	0	0	0	69.6
3296	*Mineral Wool*	W	39	35	Q	39	3	0	0	0	0	21.8
33	Primary Metal Industries	1,472	228	1,187	11	189	41	13	0	0	8	19.3
331	*Blast Furnace and Basic Steel Products*	W	53	257	2	47	12	Q	0	0	2	35.5
3312	*Blast Furnaces and Steel Mills*	W	29	49	*	28	4	0	0	0	W	19.3
3313	*Electrometallurgical Products*	5	*	5	0	0	0	0	0	0	0	69.6
3321	*Gray and Ductile Iron Foundries*	141	11	121	*	10	Q	0	0	0	W	34.1
3331	*Primary Copper*	W	*	W	0	0	0	0	0	0	*	1.6
3334	*Primary Aluminum*	W	15	W	0	12	W	0	0	0	W	1.4
3339	*Primary Nonferrous Metals, nec.*	17	2	15	*	*	W	0	0	0	0	29.6
3353	*Aluminum Sheet, Plate, and Foil*	54	11	42	0	8	W	0	0	0	0	11.3
34	Fabricated Metal Products	1,334	299	957	61	216	38	14	Q	0	W	34.8
35	Industrial Machinery and Equipment	885	176	625	57	137	10	Q	Q	*	18	30.0
357	*Computer and Office Equipment*	W	Q	*	Q	Q	0	0	0	0	0	92.2
36	Electronic and Other Electric Equipment	622	245	336	Q	190	19	8	0	0	Q	37.3

See footnotes at end of table.

Table A40. Capability to Switch from LPG to Alternative Energy Sources by Industry Group, Selected Industries, and Selected Characteristics, 1994: Part 1 (Continued)

(Estimates in Thousand Barrels)

SIC Code[a]	Industry Group and Industry	LPG			Alternative Types of Energy[b]							RSE Row Factors
		Total Consumed[c]	Switchable	Not Switchable	Electricity Receipts[d]	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coal Coke and Breeze	Other[e]	
	RSE Column Factors:	0.4	0.6	0.5	1.1	0.7	1.1	1.2	2.8	2.2	1.1	
37	Transportation Equipment	W	129	734	21	69	18	Q	0	0	Q	36.9
3711	*Motor Vehicles and Car Bodies*	88	Q	63	*	Q	*	0	0	0	0	52.1
3714	*Motor Vehicle Parts and Accessories*	W	47	302	13	27	Q	0	0	0	Q	44.1
38	Instruments and Related Products	W	12	63	Q	8	Q	*	0	0	0	51.7
3841	*Surgical and Medical Instruments*	30	Q	Q	Q	*	*	0	0	0	0	57.3
39	Misc. Manufacturing Industries	W	84	53	Q	73	Q	Q	Q	Q	Q	55.8
	Total	25,949	10,842	13,528	460	8,949	1,537	1,690	81	Q	661	10.0
Census Region and Division												
Northeast		4,663	2,000	2,324	W	1,244	856	690	Q	Q	W	18.9
New England		W	126	1,094	W	53	64	*	0	0	Q	21.3
Middle Atlantic		W	1,875	1,230	W	1,191	792	690	Q	Q	W	21.3
Midwest		5,103	1,697	2,989	162	1,359	84	492	Q	3	W	13.7
East North Central		W	1,278	1,802	W	1,066	48	W	2	2	W	15.9
West North Central		W	420	1,187	W	293	36	W	Q	1	17	23.2
South		7,032	1,983	4,517	176	1,573	324	145	Q	3	W	16.8
South Atlantic		W	1,025	2,352	143	760	239	W	Q	Q	Q	20.9
East South Central		W	417	853	W	356	42	W	Q	Q	15	19.3
West South Central		W	542	1,312	W	458	43	W	Q	Q	W	18.6
West		9,151	5,161	3,698	W	4,773	273	363	0	Q	W	14.0
Mountain		673	226	408	8	204	71	W	0	0	W	19.5
Pacific		8,479	4,935	3,290	W	4,569	202	W	0	Q	W	15.5
Total		25,949	10,842	13,528	460	8,949	1,537	1,690	81	Q	661	9.9
Value of Shipments and Receipts[f] (million dollars)												
Under 20		4,709	1,002	3,062	W	627	493	Q	61	Q	W	21.9
20-49		3,476	754	2,430	163	564	181	127	Q	3	72	21.2
50-99		2,634	578	1,833	54	429	61	Q	*	Q	37	16.9
100-249		2,411	646	1,619	51	488	117	30	0	0	26	13.7
250-499		3,376	1,303	1,977	12	896	201	315	0	0	Q	16.1
500 and Over		9,342	6,559	2,607	W	5,946	483	921	0	0	W	13.8
Total		25,949	10,842	13,528	460	8,949	1,537	1,690	81	Q	661	9.9
Employment Size[f]												
Under 50		2,671	819	1,525	84	515	447	Q	59	Q	W	27.1
50-99		2,116	355	1,565	46	279	56	78	*	1	35	23.2
100-249		5,572	1,237	3,951	116	754	191	296	Q	3	39	14.4
250-499		4,376	1,364	2,598	90	1,228	128	238	Q	Q	93	18.0
500-999		5,323	2,879	2,264	108	2,056	691	W	0	0	W	12.4
1,000 and Over		5,892	4,187	1,624	16	4,117	25	W	0	0	21	16.1
Total		25,949	10,842	13,528	460	8,949	1,537	1,690	81	Q	661	9.9

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Alternative Types of Energy" consist of those energy sources that could have been substituted for LPG during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of LPG that could have been displaced by the given alternative type of energy.

[c] "Total Consumed" represents those quantities (Total Inputs) of LPG that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

[d] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.

[e] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of LPG.

[f] Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census. See Appendix B.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q= Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A40. Number of Establishments by Capability to Switch from LPG to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2

SIC Code[a]	Industry Group and Industry	LPG[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coal Coke and Breeze	Other[f]	
	RSE Column Factors:	0.4	0.8	0.4	1.1	0.8	1.1	1.3	2.5	2.4	1.2	
20	Food and Kindred Products	3,873	605	1,907	131	455	163	33	W	W	70	18.5
2011	*Meat Packing Plants*	121	63	50	4	61	57	0	0	0	Q	39.3
2033	*Canned Fruits and Vegetables*	287	30	160	9	23	3	0	0	0	W	27.3
2037	*Frozen Fruits and Vegetables*	Q	Q	Q	Q	W	W	0	0	0	Q	0.0
2046	*Wet Corn Milling*	16	0	13	0	0	0	0	0	0	0	24.3
2051	*Bread, Cake, and Related Products*	179	66	92	W	52	W	W	0	0	0	44.8
2061	*Cane Sugar, Except Refining*	6	W	W	0	0	W	0	0	0	0	27.1
2062	*Cane Sugar Refining*	11	W	8	0	W	0	0	0	0	0	40.5
2063	*Beet Sugar*	28	3	26	0	W	0	0	0	0	0	5.2
2075	*Soybean Oil Mills*	13	6	5	0	5	W	W	0	0	W	1.3
2082	*Malt Beverages*	80	35	46	0	35	0	0	0	0	0	24.4
21	Tobacco Products	48	W	34	W	0	0	0	0	0	W	23.7
22	Textile Mill Products	1,282	214	911	31	104	Q	6	0	0	9	38.3
23	Apparel and Other Textile Products	1,330	123	691	31	70	20	W	0	0	27	42.1
24	Lumber and Wood Products	5,075	419	2,297	235	268	121	128	90	8	90	21.8
2421	*Sawmills and Planing Mills, General*	447	44	199	Q	Q	Q	0	0	0	14	36.9
2436	*Softwood Veneer and Plywood*	160	25	125	0	W	18	0	0	0	7	12.9
2493	*Reconstituted Wood Products*	129	Q	100	Q	Q	Q	0	0	0	W	82.1
25	Furniture and Fixtures	2,669	494	1,459	174	Q	54	Q	0	0	212	36.5
2511	*Wood Furniture, Except Upholstered*	460	Q	196	W	Q	Q	W	0	0	Q	58.9
26	Paper and Allied Products	2,321	209	1,336	74	74	52	W	W	4	36	22.1
2611	*Pulp Mills*	36	5	33	0	3	W	0	0	0	0	12.5
2621	*Paper Mills*	198	19	167	0	9	8	0	0	0	4	8.0
2631	*Paperboard Mills*	117	14	97	W	8	7	0	0	0	5	5.2
27	Printing and Publishing	3,601	388	2,698	241	111	42	16	0	0	W	33.5
28	Chemicals and Allied Products	2,768	265	1,924	123	182	95	66	0	0	71	26.8
2812	*Alkalies and Chlorine*	13	W	11	0	W	0	0	0	0	0	12.5
2813	*Industrial Gases*	12	0	12	0	0	0	0	0	0	0	46.1
2816	*Inorganic Pigments*	47	11	34	3	11	0	0	0	0	0	7.5
2819	*Industrial Inorganic Chemicals, nec.*	169	28	115	8	11	6	W	0	0	0	25.0
2821	*Plastics Materials and Resins*	224	50	131	16	37	15	W	0	0	0	24.4
2822	*Synthetic Rubber*	23	5	19	W	3	W	0	0	0	3	29.3
2823	*Cellulosic Manmade Fibers*	3	W	W	W	W	W	0	0	0	0	1.4
2824	*Organic Fibers, Noncellulosic*	38	5	32	W	5	W	W	0	0	W	10.2
2861	*Gum and Wood Chemicals*	21	0	15	0	0	0	0	0	0	0	8.9
2865	*Cyclic Crudes and Intermediates*	78	16	59	0	9	0	W	0	0	W	31.0
2869	*Industrial Organic Chemicals, nec.*	167	14	102	W	6	W	0	0	0	W	26.6
2873	*Nitrogenous Fertilizers*	28	5	20	W	4	0	0	0	0	0	22.5
2874	*Phosphatic Fertilizers*	13	W	10	W	0	0	0	0	0	0	8.2
2895	*Carbon Black*	W	0	W	0	0	0	0	0	0	0	53.8
29	Petroleum and Coal Products	675	169	456	23	118	Q	Q	Q	Q	16	41.4
2911	*Petroleum Refining*	99	67	35	3	56	8	17	0	0	4	5.4
30	Rubber and Misc. Plastics Products	4,193	720	3,111	268	323	157	Q	W	0	82	23.9
3011	*Tires and Inner Tubes*	88	4	72	W	W	0	0	0	0	0	14.4
308	*Miscellaneous Plastics Products, nec.*	3,682	659	2,738	263	294	156	Q	W	0	74	25.9
31	Leather and Leather Products	158	23	119	5	20	W	6	0	0	0	54.1
32	Stone, Clay and Glass Products	2,320	624	1,508	217	302	130	Q	W	0	103	32.3
3211	*Flat Glass*	47	6	41	W	4	W	0	0	0	0	15.9
3221	*Glass Containers*	45	14	31	0	12	W	W	0	0	W	12.3
3229	*Pressed and Blown Glass, nec.*	36	10	23	W	9	4	Q	0	0	0	59.2
3241	*Cement, Hydraulic*	67	5	53	W	4	W	W	0	0	4	25.3
3274	*Lime*	22	0	18	0	0	0	0	0	0	0	30.6
3296	*Mineral Wool*	112	34	96	W	34	9	0	0	0	0	11.6
33	Primary Metal Industries	2,259	284	1,586	51	168	95	26	0	0	42	18.0
331	*Blast Furnace and Basic Steel Products*	495	70	405	17	43	30	W	0	0	7	29.6
3312	*Blast Furnaces and Steel Mills*	103	22	68	W	12	8	0	0	0	3	10.1
3313	*Electrometallurgical Products*	18	W	W	0	0	0	0	0	0	0	62.7
3321	*Gray and Ductile Iron Foundries*	286	15	166	W	9	Q	0	0	0	W	31.9
3331	*Primary Copper*	4	W	W	0	0	0	0	0	0	W	1.7
3334	*Primary Aluminum*	28	8	20	0	7	W	0	0	0	W	14.3
3339	*Primary Nonferrous Metals, nec.*	32	4	31	W	W	W	0	0	0	0	41.5
3353	*Aluminum Sheet, Plate, and Foil*	35	7	28	0	5	W	0	0	0	0	6.4
34	Fabricated Metal Products	8,278	1,267	5,922	523	670	392	6	W	0	231	27.1
35	Industrial Machinery and Equipment	9,191	1,151	5,367	485	641	251	127	Q	W	Q	25.6
357	*Computer and Office Equipment*	Q	Q	9	Q	Q	0	0	0	0	0	67.5
36	Electronic and Other Electric Equipment	1,849	204	1,153	Q	75	Q	Q	0	0	Q	32.7

See footnotes at end of table.

Table A40. Number of Establishments by Capability to Switch from LPG to Alternative Energy Sources, by Industry Group and Selected Industries, 1994: Part 2 (Continued)

SIC Code[a]	Industry Group and Industry	LPG[b]			Alternative Types of Energy[c]							RSE Row Factors
		Total Consumed[d]	Switchable	Not Switchable	Electricity Receipts[e]	Natural Gas	Distillate Fuel Oil	Residual Fuel Oil	Coal	Coal Coke and Breeze	Other[f]	
	RSE Column Factors:	0.4	0.8	0.4	1.1	0.8	1.1	1.3	2.5	2.4	1.2	
37	Transportation Equipment	2,643	452	2,007	335	164	111	Q	0	0	Q	37.7
3711	*Motor Vehicles and Car Bodies*	Q	Q	Q	W	Q	W	0	0	0	0	0.0
3714	*Motor Vehicle Parts and Accessories*	803	126	633	53	51	27	0	0	0	W	41.4
38	Instruments and Related Products	825	W	603	W	13	W	W	0	0	0	45.4
3841	*Surgical and Medical Instruments*	198	Q	149	Q	W	W	0	0	0	0	58.6
39	Misc. Manufacturing Industries	1,079	183	722	Q	157	48	Q	Q	W	10	45.0
	Total	56,438	7,863	35,812	3,134	4,037	2,004	948	400	112	1,531	11.2

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
[b] This count includes only those establishments that reported this activity in 1994. See Appendix B for number of establishments by SIC in the sample frame of 247,199 establishments.
[c] "Alternative Types of Energy" consist of those energy sources that could have been substituted for LPG during 1994. The quantities are expressed in thousands of barrels, and therefore represent the quantity of LPG that could have been displaced by the given alternative type of energy.
[d] "Total Consumed" represents those quantities (Total Inputs) of LPG that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[e] "Electricity Receipts" represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption. It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in-kind. It does not include electricity generated onsite. "Electricity Receipts" has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
[f] "Other" includes all other types of energy not already identified that respondents indicated could have been consumed in place of LPG.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q= Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A41. Number of Establishments by Activities Related to Electric Motor Systems and Their Method of Evaluation, by Industry Group and Selected Industries, 1994

SIC Code[a]	Industry Group and Industry	Total	Most Commonly Used Method of Evaluation for Purchases and Modifications of Electric Motor Systems: Evaluation Based Primarily on All Expected Costs over Projected Lifetime of System	Evaluation Based Primarily on Initial Purchase Prices of Competing Systems	Another Type of Evaluation Is Used	Evaluation Is Done But Not Certain How It Is Done	No Evaluation Is Done	Not Certain If Any Type of Evaluation Is Done	RSE Row Factors
	RSE Column Factors:	0.1	0.9	1.2	1.9	2.0	1.5	1.4	
20	Food and Kindred Products	14,698	4,332	2,789	373	584	2,556	2,544	8.2
2011	*Meat Packing Plants*	759	100	124	10	34	76	323	13.6
2033	*Canned Fruits and Vegetables*	531	97	191	13	25	32	88	14.8
2037	*Frozen Fruits and Vegetables*	232	Q	Q	Q	Q	Q	Q	9.0
2046	*Wet Corn Milling*	58	18	14	W	W	3	6	10.8
2051	*Bread, Cake, and Related Products*	1,303	402	202	26	18	253	294	18.6
2061	*Cane Sugar, Except Refining*	43	11	14	0	6	6	7	7.5
2062	*Cane Sugar Refining*	20	5	8	0	W	W	W	18.2
2063	*Beet Sugar*	41	13	13	W	5	W	3	4.1
2075	*Soybean Oil Mills*	95	52	15	W	W	10	5	1.2
2082	*Malt Beverages*	140	115	0	W	W	W	0	9.7
21	Tobacco Products	121	67	16	W	W	20	0	8.5
22	Textile Mill Products	4,428	1,213	726	138	W	681	978	15.7
23	Apparel and Other Textile Products	18,019	1,363	919	89	439	5,954	4,442	11.4
24	Lumber and Wood Products	21,623	3,278	2,527	472	528	6,628	3,701	9.0
2421	*Sawmills and Planing Mills, General*	3,545	811	421	78	80	588	667	13.1
2436	*Softwood Veneer and Plywood*	182	71	21	18	7	10	37	9.8
2493	*Reconstituted Wood Products*	246	63	Q	Q	Q	Q	Q	21.9
25	Furniture and Fixtures	7,691	826	1,150	52	122	3,152	1,286	12.3
2511	*Wood Furniture, Except Upholstered*	1,548	122	431	Q	0	709	148	18.1
26	Paper and Allied Products	5,582	1,495	1,072	385	344	979	795	10.2
2611	*Pulp Mills*	55	29	9	3	3	W	W	8.3
2621	*Paper Mills*	310	175	52	37	11	3	17	4.5
2631	*Paperboard Mills*	219	121	45	15	6	3	14	2.9
27	Printing and Publishing	37,384	2,703	2,597	202	960	14,861	6,853	9.2
28	Chemicals and Allied Products	9,565	2,556	2,165	303	450	2,238	972	9.4
2812	*Alkalies and Chlorine*	44	15	8	4	5	4	4	4.4
2813	*Industrial Gases*	623	387	29	W	0	15	27	12.3
2816	*Inorganic Pigments*	81	34	17	4	8	10	7	4.6
2819	*Industrial Inorganic Chemicals, nec.*	568	185	136	31	39	52	108	14.8
2821	*Plastics Materials and Resins*	456	139	104	29	28	42	32	11.2
2822	*Synthetic Rubber*	63	26	17	5	W	8	3	11.8
2823	*Cellulosic Manmade Fibers*	11	3	W	3	0	0	0	1.4
2824	*Organic Fibers, Noncellulosic*	73	39	13	6	W	4	7	5.1
2861	*Gum and Wood Chemicals*	60	18	16	W	W	7	10	4.3
2865	*Cyclic Crudes and Intermediates*	187	70	50	6	30	6	13	13.5
2869	*Industrial Organic Chemicals, nec.*	631	164	217	21	17	73	55	13.5
2873	*Nitrogenous Fertilizers*	118	46	15	3	6	22	20	7.2
2874	*Phosphatic Fertilizers*	69	26	16	5	W	9	11	2.7
2895	*Carbon Black*	23	9	3	W	0	W	9	9.3
29	Petroleum and Coal Products	1,971	613	419	88	199	163	254	14.8
2911	*Petroleum Refining*	247	116	44	13	15	8	27	3.3
30	Rubber and Misc. Plastics Products	11,952	2,746	2,278	470	562	2,468	2,292	9.2
3011	*Tires and Inner Tubes*	112	50	35	4	W	3	13	10.0
308	*Miscellaneous Plastics Products, nec.*	9,967	2,271	1,833	419	518	2,051	1,964	9.6
31	Leather and Leather Products	1,356	120	55	W	49	205	343	18.7
32	Stone, Clay and Glass Products	11,970	2,339	1,569	188	453	3,158	2,614	11.8
3211	*Flat Glass*	68	29	12	8	W	8	W	8.9
3221	*Glass Containers*	78	32	4	0	W	0	25	6.5
3229	*Pressed and Blown Glass, nec.*	163	84	Q	W	3	0	Q	20.6
3241	*Cement, Hydraulic*	190	98	21	7	7	5	43	11.3
3274	*Lime*	84	33	19	0	5	3	14	11.5
3296	*Mineral Wool*	174	95	39	10	9	W	W	6.7
33	Primary Metal Industries	5,171	1,469	1,170	215	250	828	798	9.1
331	*Blast Furnace and Basic Steel Products*	981	240	342	23	60	97	90	12.4
3312	*Blast Furnaces and Steel Mills*	284	95	52	8	34	29	37	4.1
3313	*Electrometallurgical Products*	36	11	11	0	Q	W	Q	21.7
3321	*Gray and Ductile Iron Foundries*	517	185	142	20	31	39	59	16.2
3331	*Primary Copper*	20	11	4	0	0	W	0	1.5
3334	*Primary Aluminum*	44	26	4	4	0	W	5	7.2
3339	*Primary Nonferrous Metals, nec.*	88	32	Q	W	3	12	11	13.3
3353	*Aluminum Sheet, Plate, and Foil*	55	20	13	7	4	5	5	4.0

See footnotes at end of table.

Table A41. Number of Establishments by Activities Related to Electric Motor Systems and Their Method of Evaluation, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Total	Most Commonly Used Method of Evaluation for Purchases and Modifications of Electric Motor Systems: Evaluation Based Primarily on All Expected Costs over Projected Lifetime of System	Evaluation Based Primarily on Initial Purchase Prices of Competing Systems	Another Type of Evaluation Is Used	Evaluation Is Done But Not Certain How It Is Done	No Evaluation Is Done	Not Certain If Any Type of Evaluation Is Done	RSE Row Factors
	RSE Column Factors:	0.1	0.9	1.2	1.9	2.0	1.5	1.4	
34	Fabricated Metal Products	26,262	2,909	4,549	322	1,120	8,546	5,313	9.9
35	Industrial Machinery and Equipment	33,837	3,191	4,267	866	913	10,887	7,320	8.8
357	*Computer and Office Equipment*	1,410	410	58	8	Q	260	252	22.1
36	Electronic and Other Electric Equipment	11,264	2,009	1,831	89	179	4,009	1,616	11.2
37	Transportation Equipment	7,240	1,005	1,022	124	433	2,110	1,853	14.1
3711	*Motor Vehicles and Car Bodies*	322	Q	Q	W	Q	Q	Q	9.0
3714	*Motor Vehicle Parts and Accessories*	2,062	326	389	80	54	927	214	17.9
38	Instruments and Related Products	7,071	1,424	952	135	119	2,785	1,143	14.5
3841	*Surgical and Medical Instruments*	878	222	46	Q	Q	377	138	19.7
39	Misc. Manufacturing Industries	9,994	770	1,017	186	286	4,025	2,463	14.5
	Total	247,199	36,429	33,090	4,752	8,216	76,254	47,579	3.5

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A42. Number of Establishments by Activities Related to Listings of Electric Motor Systems, by Industry Group and Selected Industries, 1994

SIC Code[a]	Industry Group and Industry	Total	Listing Kept of All Operating Electric Motors	Listing Kept of Some Operating Electric Motors	No Listing at All Is Kept	Existence of Listing Is Not Known	RSE Row Factors
	RSE Column Factors:	0.1	0.8	0.8	0.7	1.0	
20	Food and Kindred Products	14,698	2,024	3,125	6,067	2,214	12.1
2011	*Meat Packing Plants*	759	164	110	219	191	23.4
2033	*Canned Fruits and Vegetables*	531	70	174	179	72	22.4
2037	*Frozen Fruits and Vegetables*	232	Q	Q	Q	139	21.6
2046	*Wet Corn Milling*	58	17	13	14	6	15.3
2051	*Bread, Cake, and Related Products*	1,303	172	178	741	125	23.2
2061	*Cane Sugar, Except Refining*	43	17	19	4	W	10.9
2062	*Cane Sugar Refining*	20	9	W	W	W	22.4
2063	*Beet Sugar*	41	14	21	W	W	4.6
2075	*Soybean Oil Mills*	95	43	24	12	7	1.3
2082	*Malt Beverages*	140	20	39	75	W	13.2
21	Tobacco Products	121	40	37	W	W	10.6
22	Textile Mill Products	4,428	490	799	1,658	1,032	23.6
23	Apparel and Other Textile Products	18,019	883	1,038	8,260	3,118	20.4
24	Lumber and Wood Products	21,623	1,422	2,114	10,964	3,053	14.7
2421	*Sawmills and Planing Mills, General*	3,545	455	467	1,185	581	20.3
2436	*Softwood Veneer and Plywood*	182	60	55	32	20	12.1
2493	*Reconstituted Wood Products*	246	64	Q	Q	119	38.1
25	Furniture and Fixtures	7,691	601	499	4,386	1,316	22.8
2511	*Wood Furniture, Except Upholstered*	1,548	Q	210	987	88	29.5
26	Paper and Allied Products	5,582	812	1,123	2,184	1,018	12.8
2611	*Pulp Mills*	55	34	9	0	5	8.5
2621	*Paper Mills*	310	199	70	10	18	4.6
2631	*Paperboard Mills*	219	109	74	10	15	2.8
27	Printing and Publishing	37,384	486	1,581	20,457	5,967	14.4
28	Chemicals and Allied Products	9,565	1,659	2,110	3,851	1,204	11.8
2812	*Alkalies and Chlorine*	44	21	10	9	4	5.5
2813	*Industrial Gases*	623	324	85	37	15	14.2
2816	*Inorganic Pigments*	81	20	31	22	8	6.0
2819	*Industrial Inorganic Chemicals, nec.*	568	150	158	122	127	16.8
2821	*Plastics Materials and Resins*	456	117	158	87	28	12.8
2822	*Synthetic Rubber*	63	26	18	16	W	14.8
2823	*Cellulosic Manmade Fibers*	11	4	6	0	0	1.3
2824	*Organic Fibers, Noncellulosic*	73	18	33	8	12	5.8
2861	*Gum and Wood Chemicals*	60	6	4	38	6	8.6
2865	*Cyclic Crudes and Intermediates*	187	73	76	11	15	17.5
2869	*Industrial Organic Chemicals, nec.*	631	178	153	144	74	18.7
2873	*Nitrogenous Fertilizers*	118	36	23	32	20	10.6
2874	*Phosphatic Fertilizers*	69	26	16	15	11	3.6
2895	*Carbon Black*	23	14	W	W	W	12.5
29	Petroleum and Coal Products	1,971	572	460	423	286	18.9
2911	*Petroleum Refining*	247	147	43	11	25	4.0
30	Rubber and Misc. Plastics Products	11,952	906	2,181	5,076	2,784	14.0
3011	*Tires and Inner Tubes*	112	9	55	23	22	16.0
308	*Miscellaneous Plastics Products, nec.*	9,967	751	1,736	4,149	2,534	14.5
31	Leather and Leather Products	1,356	Q	90	W	W	28.9
32	Stone, Clay and Glass Products	11,970	1,094	1,554	5,535	2,218	17.3
3211	*Flat Glass*	68	12	27	19	W	11.4
3221	*Glass Containers*	78	6	18	3	39	10.1
3229	*Pressed and Blown Glass, nec.*	163	16	74	Q	Q	34.0
3241	*Cement, Hydraulic*	190	116	34	W	33	14.7
3274	*Lime*	84	37	22	4	11	16.2
3296	*Mineral Wool*	174	74	79	W	12	7.8
33	Primary Metal Industries	5,171	614	1,220	2,202	739	13.5
331	*Blast Furnace and Basic Steel Products*	981	133	218	336	177	13.9
3312	*Blast Furnaces and Steel Mills*	284	74	77	49	58	5.4
3313	*Electrometallurgical Products*	36	9	14	W	9	35.4
3321	*Gray and Ductile Iron Foundries*	517	68	236	88	81	22.6
3331	*Primary Copper*	20	4	12	0	W	1.2
3334	*Primary Aluminum*	44	16	14	7	4	11.7
3339	*Primary Nonferrous Metals, nec.*	88	17	13	39	13	20.4
3353	*Aluminum Sheet, Plate, and Foil*	55	12	27	6	7	5.1

See footnotes at end of table.

Table A42. Number of Establishments by Activities Related to Listings of Electric Motor Systems, by Industry Group and Selected Industries, 1994 (Continued)

SIC Code[a]	Industry Group and Industry	Total	Listing Kept of All Operating Electric Motors	Listing Kept of Some Operating Electric Motors	No Listing at All Is Kept	Existence of Listing Is Not Known	**RSE Row Factors**
	RSE Column Factors:	0.1	0.8	0.8	0.7	1.0	
34	Fabricated Metal Products	26,262	1,308	2,654	14,704	4,589	17.1
35	Industrial Machinery and Equipment	33,837	396	2,370	18,821	6,278	19.0
357	*Computer and Office Equipment*	1,410	22	88	522	556	31.0
36	Electronic and Other Electric Equipment	11,264	513	1,362	6,279	1,505	22.8
37	Transportation Equipment	7,240	373	1,253	3,203	1,626	23.4
3711	*Motor Vehicles and Car Bodies*	322	W	Q	Q	Q	12.7
3714	*Motor Vehicle Parts and Accessories*	2,062	273	405	952	246	31.3
38	Instruments and Related Products	7,071	155	999	4,121	1,152	23.9
3841	*Surgical and Medical Instruments*	878	15	99	530	177	30.8
39	Misc. Manufacturing Industries	9,994	531	768	6,063	1,429	27.3
	Total	247,199	14,942	27,337	124,983	41,729	5.8

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.
NF=No applicable RSE row/column factor.
* Estimate less than 0.5.
W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: •To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A43. Total Inputs of Selected Wood and Wood-Related Products for Heat, Power, and Electricity Generation by Census Region, Industry Group, and Selected Industries, 1994

(Estimates in Million Btu)

SIC Code[a]	Industry Group and Industry	Selected Wood and Wood-Related Products						RSE Row Factors
			Biomass					
		Pulping Liquor or Black Liquor	Biomass Total[b]	Agricultural Waste[c]	Wood Harvested Directly from Trees[d]	Wood Residues and Byproducts from Mill Processing[e]	Wood-Related and Paper-Related Refuse[f]	
		Total United States						
	RSE Column Factors:	0.6	0.6	2.2	0.9	0.7	1.8	
20	Food and Kindred Products	0	107,269	93,960	4,113	4,054	5,142	15.8
24	Lumber and Wood Products	0	276,136	Q	29,799	237,415	8,771	11.1
2421	*Sawmills and Planing Mills, General*	0	151,060	0	15,496	129,422	6,141	16.2
2436	*Softwood Veneer and Plywood*	0	57,543	0	8,373	49,169	Q	19.0
2493	*Reconstituted Wood Products*	0	31,734	0	2,670	26,896	2,168	19.8
25	Furniture and Fixtures	0	12,963	0	1,305	11,113	545	16.8
2511	*Wood Furniture, Except Upholstered*	0	11,281	0	1,305	9,745	230	19.1
26	Paper and Allied Products	882,216	406,248	1,927	150,282	238,304	15,735	5.1
2611	*Pulp Mills*	151,477	41,181	0	21,951	19,164	66	16.4
2621	*Paper Mills*	379,867	193,241	1,686	79,736	103,411	8,408	7.6
2631	*Paperboard Mills*	350,361	168,940	W	47,734	114,927	W	5.2
21-23 & 27-39	Other Manufacturing	0	27,904	Q	3,835	12,883	6,676	21.5
	Total	882,216	830,520	100,549	189,334	503,769	36,869	5.1
		Northeast Census Region						
	RSE Column Factors:	0.7	0.8	1.6	0.9	0.8	1.6	
20	Food and Kindred Products	0	W	0	0	W	W	38.0
24	Lumber and Wood Products	0	11,781	0	1,441	8,278	Q	38.3
25	Furniture and Fixtures	0	1,397	0	W	895	W	32.8
26	Paper and Allied Products	53,729	30,182	0	16,079	12,446	1,658	12.3
21-23 & 27-39	Other Manufacturing	0	W	0	W	W	W	12.7
	Total	53,729	43,645	0	18,049	21,719	3,877	15.4
		Midwest Census Region						
	RSE Column Factors:	0.7	0.8	1.6	0.9	0.8	1.6	
20	Food and Kindred Products	0	W	0	0	0	W	0.9
24	Lumber and Wood Products	0	21,858	0	W	18,162	W	26.5
25	Furniture and Fixtures	0	W	0	W	W	W	32.1
26	Paper and Allied Products	44,559	40,527	W	11,634	26,775	W	14.1
21-23 & 27-39	Other Manufacturing	0	8,956	W	W	W	W	22.2
	Total	44,559	73,345	Q	15,611	47,735	5,202	13.4
		South Census Region						
	RSE Column Factors:	0.7	0.8	1.6	0.9	0.8	1.6	
20	Food and Kindred Products	0	88,453	77,838	W	W	W	19.8
24	Lumber and Wood Products	0	151,486	0	16,806	131,491	3,189	13.5
25	Furniture and Fixtures	0	9,495	0	W	W	W	19.8
26	Paper and Allied Products	677,191	292,470	1,433	99,304	182,415	9,318	6.3
21-23 & 27-39	Other Manufacturing	0	18,723	0	2,320	11,633	4,774	24.6
	Total	677,191	560,633	79,270	123,272	335,536	22,555	6.3

See footnotes at end of table.

Table A43. Total Inputs of Selected Wood and Wood-Related Products for Heat, Power, and Electricity Generation by Census Region, Industry Group, and Selected Industries, 1994 (Continued)

(Estimates in Million Btu)

SIC Code[a]	Industry Group and Industry	Selected Wood and Wood-Related Products						RSE Row Factors
			Biomass					
		Pulping Liquor or Black Liquor	Biomass Total[b]	Agricultural Waste[c]	Wood Harvested Directly from Trees[d]	Wood Residues and Byproducts from Mill Processing[e]	Wood-Related and Paper-Related Refuse[f]	
		West Census Region						
	RSE Column Factors:	0.7	0.8	1.6	0.9	0.8	1.6	
20	Food and Kindred Products	0	18,685	16,123	W	2,537	W	21.4
24	Lumber and Wood Products	0	91,010	Q	W	79,483	W	17.0
25	Furniture and Fixtures	0	W	0	0	W	0	0.0
26	Paper and Allied Products	106,737	43,069	W	23,265	16,669	W	12.3
21-23 & 27-39	Other Manufacturing	0	W	W	0	W	W	35.4
	Total	106,737	152,897	16,480	32,403	98,779	5,236	10.6

[a] See Appendices B and F for descriptions of the Standard Industrial Classification system.

[b] "Biomass Total" is the sum of the estimates for these four components: agricultural waste, wood harvested directly from trees, wood residues and byproducts from mill processing, and wood-related and paper-related refuse. "Biomass Total" does not include pulping liquor or black liquor.

[c] Includes bagasse, rice hulls, nut shells, and orchard prunings.

[d] Includes roundwood, wood chips, and tree bark.

[e] Includes sawdust, shavings, slabs, and bark.

[f] Includes scrap, wastepaper, wood pallets, and packing materials.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Table A44. Total First Use (formerly Primary Consumption) of Energy for All Purposes by Selected Energy Sources, 1994

(Estimates in Trillion Btu)

Selected Energy Sources	Total	RSE Row Factors
	Total United States	
RSE Column Factor:	1.0	
Coal	2,105	4.0
Natural Gas	6,835	3.0
Net Electricity	2,656	2.0
Purchased Electricity	2,689	1.0
Transfers In	53	4.0
Generation from Noncombustible Renewable Resources	10	10.0
Electricity Sales/Transfers Out	96	4.0
Coke and Breeze	449	8.0
Residual Fuel Oil	490	3.0
Distillate Fuel Oil	158	4.0
Liquefied Petroleum Gases	1,631	6.0
Other	7,926	2.0
Asphalt and Road Oil	1,224	0.0
Lubricants	416	0.0
Kerosene	54	36.0
Finished Motor Gasoline	10	5.0
Naphtha < 401 Degrees	392	0.0
Other Oils >=401 Degrees	799	0.0
Special Naphthas	137	0.0
Waxes	48	0.0
Miscellaneous Nonfuel Products	93	0.0
Crude Oil	7	23.0
Pentanes Plus	--	0.0
Unfinished Oils	--	0.0
Motor Gas Blending Compounds	--	0.0
Aviation Gas Blending Compounds	--	0.0
Petroleum Coke	916	4.0
Still Gas/Waste Gas	1,474	3.0
Pulping Liquor or Black Liquor	882	3.0
Biomass Total	951	3.0
Agricultural Waste	109	13.0
Wood Harvested Directly from Trees	251	6.0
Wood Residues and Byproducts from Mill Processing	540	4.0
Wood-Related and Paper-Related Refuse	51	7.0
Net Steam/Hot Water	248	5.0
Miscellaneous	274	7.0
Shipments of Energy Sources Produced Onsite [a]	587	9.0
Total [b]	21,663	2.0

[a] "Shipments of Energy Sources Produced Onsite" are those shipments produced or transformed onsite from the nonfuel use of other energy sources. For example, at an establishment that processes coal to make coke for later use, the entire quantity of coal is counted as first use. Any onsite consumption of coke is not counted as first use because it would duplicate the coal use. If some of the coke is then sold to another establishment, then that second establishment will consider this coke to be a shipment of an offsite-produced energy source. Hence, the second establishment will count this coke as its first use, thereby resulting in double counting. In order to eliminate the double counting, the energy equivalent of the coke shipment must be subtracted from first use.

[b] "Total" is the sum of all of the listed energy sources, including "Other," minus the shipments of energy sources produced onsite. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.

NF=No applicable RSE row/column factor.

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

-- Estimation is not applicable. Energy source is not included in series.

Notes: • To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. • Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Appendix B

Survey Design, Implementation, and Estimates

Appendix B

Survey Design, Implementation, and Estimates

Introduction

The 1994 Manufacturing Energy Consumption Survey is the Energy Information Administration's latest survey of the manufacturing sector. Previous manufacturing surveys were conducted for reporting years 1985, 1988, and 1991 in 1986, 1989, and 1992, respectively. The next MECS survey will be conducted for reporting year 1998, with subsequent MECS being conducted every 4 years thereafter.

Overview of Changes from Previous Surveys

Sample Design. The MECS has increased its sample size by roughly 40 percent since the 1991 survey, increasing the designed sample size from 16,054 establishments to 22,922. This increase in size and change in sampling criteria required a departure from using the Annual Survey of Manufactures (ASM) as the MECS sampling frame. For 1994, establishments were selected directly from the 1992 Census of Manufactures (CM) mail file, updated by 1993 ASM.

Sample Frame Coverage. The coverage in the 1994 MECS is 98 percent of the manufacturing population as measured in total payroll. The sampling process itself provided that level of coverage, and no special adjustments were used to increase it. The 1991 survey had identical coverage, whereas the 1988 survey was statistically adjusted to cover 100 percent of the population. Therefore, many of the potential sources of bias that pertained to the 1988 survey estimates are not relevant to either the 1991 or 1994 survey. *Because of the difference in sample coverage, care must be exercised when comparing absolute quantities among the three surveys--small differences might be correctly attributable to coverage rather than real change.*

New Industry Estimates. The nearly 7,000 increase in the number of establishments sampled has allowed EIA to publish separate estimates for 52 industries and industry groups, in addition to the 20 larger major groups (2-digit SIC). In 1991, there were 42 industries and industry groups published; and in 1988, the sample design permitted only 10 industries for which separate estimates were publishable beyond the 20 major groups. Also, for the first time, this latest report presents estimates relating to the number of manufacturing establishments.

Additional Data Items for Improved Estimation. In 1991, EIA recognized a potential for overestimating energy source quantities in industries that produce and sell energy sources; it corrected for such overestimation by collecting energy shipments from sample establishments. The correction is required when a manufacturer uses an energy source as an input to a process (i.e, feedstock), produces another energy source as a result of that process, and then sells or transfers the produced energy source to another establishment. The quantity of the receipt in the second establishment would duplicate the feedstock use in the first. Part of the solution has been to estimate consumption in petroleum refineries differently from other industries (see section entitled "Feedstocks and Offsite-Produced Fuel at Petroleum Refineries" in this appendix). To correct the problem for other industries, the MECS, in 1991, began collecting shipments offsite of energy sources produced onsite (see "Development of the Data File" in this appendix). EIA has continued to correct for energy shipments from manufacturing establishments in 1994. In addition, estimates of energy shipments appear in Table A1, First Use of Energy, of this report.

New Data Collection Sections. Survey collection forms now include sections on natural gas industry restructuring— service rates of natural gas purchases; supply, transportation, and other costs associated with non-local distribution company natural gas purchases—actual fuel switching occurring between natural gas and residual fuel oil, types of cogeneration technology in use by manufacturers, square footage of manufacturing floorspace, and energy management activities (sponsored by electric utility; self; and Federal, State, and local governments). As a one-time collection of establishment activities, EIA investigated the methods that manufacturers most commonly used to purchase, and to make modifications to, electric motor systems.

New Geography Level. In part, the nearly 7,000-establishment increase in sample size provides for reliable estimation of energy consumption at the nine Census divisions (see glossary for a definition of Census division and Appendix E for a division-level map).

The basic unit of data collection for this survey is the manufacturing establishment. A nationally representative sample of these establishments supplied the information through mailed questionnaires. The Manufacturing and Construction Division of the Bureau of the Census, in consultation with EIA, selected the MECS sample, conducted fieldwork, and processed the data.

This appendix presents a summary of the design and implementation procedures for the survey, highlights differences between reporting periods, and describes the types of estimates included in this report. For more detailed design, methodology, and background information, refer to the EIA publication *Manufacturing Energy Consumption Survey: Methodological Report*, DOE/EIA-0514 (Washington, DC, 1988).

Description of the Manufacturing Sector

The manufacturing sector consists of all manufacturing establishments in the 50 States and the District of Columbia. The working definition of a manufacturing establishment is the definition stated in the Office of Management and Budget's *Standard Industrial Classification Manual*:

> [Manufacturing establishments are]... engaged in the mechanical or chemical transformation of materials or substances into new products. These establishments are usually described as plants, factories, or mills and characteristically use power driven machines and materials handling equipment. Establishments engaged in assembling component parts of manufactured products are also considered manufacturing if the new product is neither a structure nor other fixed improvement. Also included is the blending of materials such as lubricating oil, plastics, resins, or liquors.[26]

The SIC manual contains a hierarchial classification system that groups establishments according to their primary economic activities. This system divides the manufacturing sector (referred to as "manufacturing division" in the SIC manual) into 20 major industrial groups that are relatively homogeneous with respect to primary output. Each of these major industrial groups is assigned a two-digit code. The two-digit codes for the manufacturing sector range from SIC 20, Food and Kindred Products, through SIC 39, Miscellaneous Manufacturing Industries. Each major group is subdivided into three-digit groups, which are further divided into four-digit industries. For example, SIC 20 includes SIC 201, Meat Products, which, in turn, is subdivided into SIC 2011, Meat Packing Plants; SIC 2012, Sausages and Other Prepared Meat Products; SIC 2016, Poultry Dressing Plants; and SIC 2017, Poultry and Egg Processing.

The SIC category is the single most important classification variable in the MECS data system, both for selecting the survey sample and analyzing the tabulated data. The categories of primary interest for the MECS are the 20 major industrial groups (SIC 20 through 39) and the 52 three- and four-digit industries that consumed the most energy, demonstrated high growth, or had a special programmatic interest. A description of these 20 major industrial groups and 52 industry groups and industries appears in Appendix F of this report.

The 1994 MECS, as well as the 1988 and 1991 surveys, used the SIC classification system that is presented in the 1987 edition of the SIC manual. The 1985 MECS was based on the 1972 SIC manual. For the most part, the revisions were minor and had a negligible effect on the MECS estimates. However, there were some revisions that would affect comparisons between 1985 and subsequent years.

Among the more significant revisions was the one concerning the way certain petrochemical plants were classified for the 1988, 1991, and 1994 MECS, as opposed to the 1985 survey. If the primary product of a petrochemical plant in 1985 was a liquefied petroleum gas (LPG), the plant was classified in SIC 2911 as Petroleum Refining, regardless of how the LPG was produced. For the later survey years (including the 1994 survey), the establishment was classified in SIC 2911 only if the LPG was produced by a refinery process. If the LPG was produced by a chemical process, the establishment

[26]Office of Management and Budget, *Standard Industrial Classification Manual, 1987* (Washington, DC, 1987), p. 67.

was classified as an organic chemical industry (SIC 2865 or 2869). Thus, when comparing the estimates for SICs 2911, 2865, and 2869 between the 1985 and later MECS reports, the reader is cautioned to take the classification differences into account.[27]

The Sampling Frame and Its Relationship to the Manufacturing Sector

As mentioned in the Introduction to this appendix, the Census Bureau serves as the collecting and compiling agent for the MECS. In addition to the MECS, a major responsibility of the Manufacturing and Construction Division of the Census Bureau is to conduct the Census of Manufactures (CM) and the Annual Survey of Manufactures (ASM). MECS uses those surveys to construct a sampling frame, as well as to provide economic data for establishments common to both systems.

Census of Manufactures

The CM is conducted for years ending in "2" or "7" (for example, 1992) and obtains economic data for the complete universe of approximately 380,000 manufacturing establishments in the United States. For the purposes of data collection, the manufacturing universe is divided into two major subsets as follows.

1. **Small Single-Establishment Companies Not Sent a Report Form.** Generally, companies with fewer than five employees are excused from filing a CM report. Those with 5 through 20 employees are excused or sent a report form based on the magnitude of their annual payroll and shipments data. In 1992, approximately 143 thousand establishments were excused from filing due to this criterion.

2. **Establishments Sent a Report Form.** All companies with 20 or more employees are mailed a CM report form. In 1992, approximately 237 thousand establishments fell into this subset of the CM manufacturing universe, which represents all multi-establishment firms and single-establishment firms with payrolls above a pre-determined cutoff level.

Annual Survey of Manufactures

The ASM is conducted during non-CM years to provide estimates of economic characteristics for the universe of manufacturing establishments. As with the CM, the ASM contains two components. The first component is the mail portion, a probability sample of manufacturing establishments selected from the list of establishments that are sent the CM report form (see above). Those establishments are weighted so that they represent the mail portion of the CM universe. The second component of the ASM is the nonmail portion of the CM. These small establishments are not sent an ASM questionnaire, but their contribution to economic statistics is estimated based on selected information obtained annually from other Federal agencies. For the 1994 ASM, approximately 55 thousand questionnaires were mailed to manufacturing establishments that had been selected from an updated 1992 CM mail file.

Manufacturing Energy Consumption Survey

In 1994, the MECS improved its sampling procedure. For the first time, the survey sample was drawn directly from the updated 1992 CM mail file, rather than subsampled from the ASM mail file. While this change in sampling frame has no effect on the coverage of the manufacturing universe by the MECS—sample establishments, when weighted, still cover 98 percent of the manufacturing universe, as measure by total payroll—this improvement permits the MECS to target directly those industries that are of significant interest to data users, as well as to control subnational sampling (see

[27]An effort was made to account for the SIC revisions by reclassifying the 1985 MECS estimates according to the 1987 SIC codes. The revised consumption estimates were used to form energy intensity change estimates. See EIA, *Manufacturing Energy Consumption Survey: Changes in Energy Intensity in the Manufacturing Sector, 1985-1991*, DOE/EIA-0552(85-91) (Washington, DC, 1995). Future MECS samples will conform to the North American Industrial Classification System (NAICS) developed by the Office of Management and Budget. The NAICS will replace the 1987 SIC.

Sample Design section in this appendix).[28] Of the 239,000 eligible establishments in the CM mail file, 22,922 were selected for the 1994 MECS sample, of which 22,173 were mailed a questionnaire and 749 were identified as out of scope (e.g., out of business).

Coverage Differences Between MECS 1988 and 1985, 1991, and 1994

Due to an adjusted coverage difference between the 1988 survey design and 1985, 1991 and 1994 designs, the coverage of manufacturing estimates varied slightly from the 1988 survey to the other surveys. Therefore, EIA urges that comparisons of estimates produced from these surveys and analysis of trends be done with caution.

The 1994 MECS estimates cover 98 percent of the manufacturing sector as measured by total payroll. The 2 percent of the payroll not covered is known to be represented by a subgroup of relatively small but numerous manufacturing establishments. When taken as a whole, they account for roughly 2 percent of a number of different economic measures, including energy consumption. Because of the cost and difficulty of accurately surveying this subgroup, it was excluded from the survey and, thus, from the estimates presented in this report.

In contrast, the 1988 MECS estimates represent the *entire* manufacturing sector. Small establishments excluded from the other MECS surveys were accounted for by means of a population adjustment factor, applied to each establishment's sampling weight (by stratum) after the sample was drawn. Coverage adjustment was necessary for the 1988 survey because the coverage of the population had degraded over time, and Census procedures for population updates could not entirely compensate for the coverage loss. Also, EIA wanted to retain the active portion of the 1985 sample, rather than select an entirely new sample. This method meant that establishments had to be classified according to very specific definitions. For example, establishments that had ceased operation since 1985 had to be distinguished from those that merely underwent a change of ownership. To counteract the coverage loss, as well as the operational errors that might have occurred while maintaining a sample built in this way, a ratio adjustment was selected to adjust selected MECS economic estimates to control totals from the 1987 Census of Manufactures. By necessity, that adjustment also included the portion of the manufacturing sector that was not originally intended for estimation, the 2 percent of certain economic measures represented by the smallest establishments.[29] The 1994 and other MECS surveys did not use an adjustment factor because: (1) there was no readily available population adjustment for 1991 estimates, and (2) the relative simplicity of the sample design yielded fewer operational errors.

The 1985 estimates excluded the smallest establishments from coverage. That exclusion tends to make 1985 coverage comparable with the 1991 and 1994 coverages. Due to Census' updating procedures that were in place during the 1985 survey, the coverage might have been slightly less than the 98 percent of the 1991 and 1994 surveys, but exact estimates of coverage are difficult to estimate. Therefore, caution must be exercised by readers who wish to compare 1985, 1988, 1991, and 1994 estimates.[30]

Sample Design

Sample Size

The expected size of the MECS sample was 23,000 establishments. Because of the randomness of sampling, the actual sample size differed. Of the approximately 239 thousand eligible establishments, exactly 22,922 establishments were selected, of which 22,173 were mailed a questionnaire.

[28]Establishments that were first eligible for the MECS in calendar year 1994 were not mailed a questionnaire. Rather, their contribution was accounted for in the nonresponse adjustment. See section entitled "Estimation Process" in this appendix.

[29]For a more detailed explanation of the population adjustment factor, see Appendix A, EIA, *Manufacturing Energy Consumption Survey: Consumption of Energy, 1988*, DOE/EIA-0512(88), op. cit.

[30]Comparisons among the survey years can be more appropriately made by using internal ratios (e.g., quantity of offsite-produced energy per value of shipments) because the coverage differences that will appear affect both energy consumption and value of shipments equivalently in a given year. See EIA, *Manufacturing Energy Consumption Survey: Changes in Energy Intensity in the Manufacturing Sector, 1985-1991*, DOE/EIA-0552 (85-91) (Washington , DC, 1995).

In selecting the sample, the MECS had specific target criteria by SIC stratum and Census division. The targeted sampling errors in terms of relative standard errors (RSE) for the MECS sample were:

- zero for total energy expenditures in heavy energy-consuming industries, with all eligible establishments being selected, resulting in a census of these industries (see text box);
- no more than 3 percent for total energy expenditures in nonfuel-intensive SIC industries (2819, 2821, and 2869); and
- no more than 5 percent for total energy expenditures in each of the remaining groups and industries.

Because data users requested more precise subnational estimates (i.e., four Census regions and nine divisions), the 1994 MECS sample was highly controlled at subnational levels, as defined by SIC and Census divisions (see Table B1 in this appendix). This represented a change from previous samples.

Not all industries or industry groupings were controlled at the Census-division level. To target each industry and Division, a much larger sample, exceeding the expected 23,000 establishment target set for the 1994 MECS, would have been required. Instead, only 150 cells (as defined by SIC and Census division) were controlled. These cells represent the industries-division groupings that account for the largest expenditures for energy. A detailed sampling table is provided in Table B1 of this appendix. In addition to the 150 controlled cells, the table also shows the cell totals for those industries for which a census of all establishments was included in the sample.

The major purpose of increasing the sample size was to be able to produce separate energy estimates for more industries than before, as well as to produce more precise sub-national estimates. The first two surveys—in 1985 and 1988—published estimates for the 20 two-digit major groups that comprise manufacturing and 10 four-digit industries. Those 10 four-digit industries were the most energy-consuming in manufacturing. The 1991 MECS published 40 four-digit industries, 2 three-digit industry groups, and 20 two-digit major groups. The 1994 MECS has 49 four-digit industries, 3 three-digit industry groups, and 20 two-digit major groups. These industry additions come from three groups: (1) industries not in the top 10, but with high energy consumption; (2) certain high-growth industries, such as computers and medical instruments; and (3) industries for which there are identifiable policy interests or conservation opportunities.

Industries Where All Eligible Establishments Were Selected

Food industries include:

2046 Wet Corn Milling
2061 Cane Sugar, Except Refining
2062 Cane Sugar Refining
2063 Beet Sugar
2075 Soybean Oil Mills.

Paper industries include:

2611 Pulp Mills
2621 Paper Mills
2631 Paperboard Mills.

Chemical industries include:

2812 Alkalies and Chlorine
2816 Inorganic Pigments
2822 Synthetic Rubber
2823 Cellulosic Manmade Fibers
2824 Organic Fibers, Noncellulosic
2861 Gum and Wood Chemicals
2873 Nitrogenous Fertilizers
2874 Phosphatic Fertilizers
2895 Carbon Black.

Petroleum industries includes:

2911 Petroleum Refining.

Stone, Clay and Glass industries include:

3211 Flat Glass
3221 Glass Containers
3274 Lime.

Primary Metal industries include:

3312 Blast Furnaces and Steel Mills
3313 Electrometallurgical Products
3331 Primary Copper
3334 Primary Aluminum
3339 Primary Nonferrous Metals, nec
3353 Aluminum Sheet, Plate, and Foil.

Remaining industries are represented by a survey sample of eligible establishments.

Table B1. Sample Size by Census Division, Industry Group and Selected Industry, 1994

SIC Code	Industry Group and Industry	Controlled Census Division									No Controls	Total
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific		
2011	Meat Packing Plants	-	-	-	37	-	-	-	-	-	80	117
2033	Canned Fruits and Vegetables	-	-	-	-	-	-	-	-	57	106	163
2037	Frozen Fruits and Vegetables	-	-	-	-	-	-	-	-	44	54	98
2046	Wet Corn Milling	2	0	13	17	2	6	4	4	6	0	54
2051	Bread, Cake, and Related Products	-	-	-	-	-	-	-	-	-	183	183
2061	Cane Sugar, Except Refining	0	0	0	0	7	0	25	0	12	0	44
2062	Cane Sugar Refining	1	3	1	0	7	1	4	0	2	0	19
2063	Beet Sugar	0	1	7	11	0	0	1	10	10	0	40
2075	Soybean Oil Mills	0	2	25	28	14	9	5	1	10	0	94
2082	Malt Beverages	-	-	-	-	-	-	-	-	-	30	30
20	Balance of Food and Kindred Products	113	184	218	188	204	146	172	109	216	0	1550
21	Tobacco Products	-	-	-	-	18	-	-	-	-	17	35
22	Textile Mill Products	82	147	-	-	222	84	-	-	-	101	636
23	Apparel and Other Textile Products	-	271	-	-	204	171	-	-	268	198	1112
2421	Sawmills and Planing Mills, General	-	-	-	-	140	-	-	-	121	213	474
2436	Softwood Veneer and Plywood	-	-	-	-	-	-	-	-	-	68	68
2493	Reconstituted Wood Products	-	-	-	-	-	-	-	-	-	80	80
24	Balance of Lumber and Wood Products	-	-	189	-	222	-	-	-	209	268	888
2511	Wood Furniture, Except Upholstered	-	-	-	-	-	-	-	-	-	161	161
25	Furniture and Fixtures	-	-	129	-	-	-	-	-	-	278	407
2611	Pulp Mills	1	3	12	1	11	9	0	0	10	0	47
2621	Paper Mills	58	55	74	7	27	22	21	4	30	0	298
2631	Paperboard Mills	18	34	51	5	40	19	19	4	24	0	214
26	Balance of Paper and Allied Products	85	157	168	-	142	-	94	-	124	132	902
27	Printing and Publishing	173	235	236	171	218	96	172	144	202	0	1647
2812	Alkalies and Chlorine	3	4	3	3	8	3	11	3	6	0	44
2813	Industrial Gases	-	22	33	-	26	-	27	-	27	43	178
2816	Inorganic Pigments	1	22	16	7	19	5	3	0	8	0	81
2819	Industrial Inorganic Chemicals, nec.	-	-	18	-	28	19	29	11	33	63	201
2821	Plastics Materials and Resins	-	25	30	-	30	20	33	-	-	40	178
2822	Synthetic Rubber	5	5	11	1	9	8	18	1	4	0	62
2823	Cellulosic Manmade Fibers	0	1	0	0	2	5	1	0	0	0	9
2824	Organic Fibers, Noncellulosic	6	2	0	0	51	11	0	0	0	0	70
2861	Gum and Wood Chemicals	3	4	3	13	9	5	16	1	2	0	56
2865	Cyclic Crudes and Intermediates	-	-	-	-	11	-	13	-	-	44	68
2869	Industrial Organic Chemicals, nec.	-	51	39	-	39	17	46	-	-	57	249
2873	Nitrogenous Fertilizers	3	11	13	15	15	4	25	14	18	0	118
2874	Phosphatic Fertilizers	0	4	5	7	33	4	7	6	1	0	67
287	Balance of Agricultural Chemicals	-	-	-	-	-	-	-	-	-	40	40
2895	Carbon Black	0	0	4	1	2	1	15	0	0	0	23
28	Balance of Chemicals and Allied Products	46	99	97	62	82	-	-	-	82	91	559
2911	Petroleum Refining	4	27	31	12	12	13	85	29	50	0	263
29	Balance of Petroleum and Coal Products	-	110	99	-	-	-	-	-	-	187	396
3011	Tires and Inner Tubes	-	-	-	-	-	16	-	-	-	30	46
308	Miscellaneous Plastics Products, nec.	118	211	235	113	162	123	125	80	193	0	1360
30	Balance of Rubber and Misc. Products	-	-	116	-	77	-	-	-	-	168	361
31	Leather and Leather Products	-	-	-	-	-	-	-	-	-	145	145
3211	Flat Glass	2	9	9	1	8	7	7	2	9	0	54
3221	Glass Containers	3	17	15	2	16	0	10	1	14	0	78
3229	Pressed and Blown Glass, nec.	-	15	-	-	-	-	-	-	-	33	48
3241	Cement, Hydraulic	-	12	16	12	13	-	16	-	16	21	106
3274	Lime	1	10	24	9	10	13	9	5	6	0	87
3296	Mineral Wool	-	-	-	-	-	-	-	-	-	42	42
32	Balance of Stone, Clay, and Glass Products	-	107	178	104	105	95	117	-	156	215	1077
3312	Blast Furnaces and Steel Mills	4	75	81	11	31	29	27	5	25	0	288
3313	Electrometallurgical Products	0	10	15	1	4	2	1	0	2	0	35
331	Balance of Blast Furnace and Steel Products	-	-	63	-	-	-	-	-	-	78	141
3321	Gray and Ductile Iron Foundries	-	-	54	-	-	-	-	-	-	72	126
3331	Primary Copper	0	0	4	0	1	0	4	10	1	0	20
3334	Primary Aluminum	3	2	5	1	7	5	3	2	15	0	43
3339	Primary Nonferrous Metals, nec.	5	24	14	5	4	8	5	8	15	0	88
3353	Aluminum Sheet, Plate, and Foil	3	5	14	2	8	10	5	1	6	0	54
33	Primary Metal Industries	86	90	156	-	49	72	70	-	82	78	683
34	Fabricated Metal Products	162	197	287	145	171	135	193	104	223	0	1617
357	Computer and Office Equipment	-	-	-	-	-	-	-	-	44	76	120
35	Balance of Industrial Machinery and Equipment	160	164	259	157	171	130	166	121	227	0	1555
36	Electronic and Other Electric Equipment	101	103	147	85	133	80	68	47	155	0	919
3711	Motor Vehicles and Car Bodies	-	-	28	-	-	-	-	-	-	25	53
3714	Motor Vehicle Parts and Accessories	-	20	70	-	-	53	-	-	-	128	271
37	Balance of Transportation Equipment	27	43	90	24	65	46	57	20	53	0	425
3841	Surgical and Medical Instruments	-	-	-	-	-	-	-	-	-	120	120
38	Balance of Instruments and Related Products	77	86	110	-	68	-	-	-	107	114	562
39	Miscellaneous Manufacturing Industries	-	121	-	-	-	-	-	-	-	254	375
	Total	1356	2800	3515	1258	2957	1502	1729	747	2925	4133	22922

The increase in sample size also allowed for greater precision and reliability of existing estimates, especially among the major groups (two-digit SICs). For example, SIC 20 in the current sample design includes eight four-digit industries for which estimates were publishable. Previously, in the 1985 and 1988 designs, no four-digit industries in SIC 20 were published separately. The addition of the eight industries in 1991 and its continuation in 1994 yielded greater reliability of the SIC 20 major group estimates by having more sample cases in the publishable four-digit industries that comprise SIC 20. Thus, overall reliability in SIC 20 was improved without adding sample cases for that express purpose.

Sampling Methodology

For the first time, the MECS sample was selected directly from the 1992 CM mail file, updated for 1992 and 1993 manufacturing "birth" establishments. In doing so, the MECS discontinued the two-stage sampling process that existed for the previous surveys.

Pre-1994 MECS Sampling Methodology

Prior to 1994, MECS sample selection was a two-stage selection process, with the first stage being the selection of the ASM mail sample from the CM frame. The second stage was the subselection of the MECS sample from the ASM mail sample. Thus, a MECS sample establishment was selected conditionally upon its having been selected into the ASM mail sample, which means that its probability of selection from the ASM sample was conditional. Therefore, the overall probability of selection into the MECS sample was represented by the product of this conditional probability and its ASM selection probability. The probabilities for selection into the MECS sample were proportional to an energy measure of size (MOS).

Calculations of the MOS changed for the 1991 survey from those of previous years but maintained a close relationship. Actually, two MOSs were computed for each establishment. The first was based on the 1990 ASM purchased electricity quantity. The other was based on the ASM cost of purchased fuels (excluding electricity). The probability of selection would be the maximum of the two probabilities computed by using the two different MOSs.

The energy MOS for the 1985 and 1988 surveys was formed by taking a previous total Btu measure per cost of fuels and electric energy at the establishment updated by multiplying that ratio by a more current measure of average cost of fuels and electric energy. If the establishment had come into existence since the time of the last energy data available, industry averages would be employed for the ratio of Btu to cost of fuels. Neither MOS in the 1991 MECS was as highly correlated with energy consumption as the MOS used in the 1985 and 1988 sample designs. However, one advantage of the 1991 method was the fact that ASM data were used directly. Thus, each establishment had its own MOS and industry averages were no longer needed.[31]

1994 MECS Sampling Methodology

In 1994, the selection process was completed as a single-stage sampling process, bypassing the ASM and drawing directly from the CM universe. Therefore, the probability of selection was proportional to the MOS, not conditional on the ASM selection probability.

Calculation of the MOS was simplified in the 1994 MECS. Rather than use two MOS (as done in the previous survey) a single MOS was calculated: total energy expenditures. This measure combines electric and fossil-based energy source expenditures. This change allowed for an increase in the precision of establishments that are served equally by both electricity and fossil-based energy sources.

Of the 52 separately published three- and four-digit SICs, 27 included 100 percent of the corresponding establishments in the CM universe. This was done to maximize reliability (minimize the standard errors) for those important energy-intensive and growth industries. The remaining 25 separately published three- and four-digit SICs were represented by a survey sample. Those industries came from major groups with large numbers of establishments (see Table B2), and

[31]By using two different probabilities of selection, the expected sample size would be larger than would be expected by using only one. The sample allocations for each stratum were adjusted as necessary to stay close to the EIA targeted sample sizes.

the industries themselves had such large numbers of establishments that it was impractical to include all of them. The overall probabilities for selection of the MECS sample establishments ranged from 0.010 to 1.000.

Table B2. Number of Establishments in the Census of Manufactures Universe by Major Group, 1994

SIC Code	Major Group	Number of Establishments
20	Food and Kindred Products	14,698
21	Tobacco Products	121
22	Textile Mill Products	4,428
23	Apparel and Other Textile Products	18,019
24	Lumber and Wood Products	21,623
25	Furniture and Fixtures	7,691
26	Paper and Allied Products	5,582
27	Printing and Publishing	37,384
28	Chemicals and Allied Products	9,565
29	Petroleum and Coal Products	1,971
30	Rubber and Miscellaneous Plastics Products	11,952
31	Leather and Leather Products	1,356
32	Stone, Clay, and Glass Products	11,970
33	Primary Metal Industries	5,171
34	Fabricated Metal Products	26,262
35	Industrial Machinery and Equipment	33,837
36	Electronic and Other Electric Equipment	11,264
37	Transportation Equipment	7,240
38	Instruments and Related Products	7,071
39	Miscellaneous Manufacturing Industries	9,994
	Total	247,199

To completely enumerate every two-digit SIC, the 1994 MECS would have required a collection of almost 250 thousand questionnaires. Given cost constraints of the MECS, a complete enumeration was not feasible. Instead, EIA constructed a sample design based on several factors, complying with legislatively mandated coverage, meeting user-need requests, and highlighting topic-related issues. Table B2 displays the sample targets.

For the 1994 MECS, the total sample size selected was 22,922. Of that sample, 749 establishments were determined to be out of scope or no longer in business prior to the MECS mailing, leaving a mail sample of 22,173. At the final closing, 19,292 questionnaires were received and subsequently keyed, a response rate of 87 percent.

Fieldwork, Editing, and Quality Control

The 1994 MECS continued the method that was started with the 1988 survey of using customized questionnaires for specific industries. The three questionnaires were:

- **Form EIA-846(A)**—This questionnaire was sent to the majority of the sample and collected the basic consumption, expenditure, fuel-switching, end-use, and technology information.

- **Form EIA-846(B)**—This questionnaire was sent exclusively to establishments in the Petroleum Refining Industry (SIC 2911). The design of the questionnaire took advantage of the fact that other EIA surveys collect certain consumption and expenditure data from the refinery population. Thus, the EIA-846(B) questionnaire did not require respondents to report on certain data items.

- **Form EIA-846(C)**—This questionnaire was sent to producers of Chemicals and Allied Products (SIC 28), producers of Petroleum and Coal Products other than Petroleum Refining (SIC 29 excluding SIC 2911), Lumber

and Wood Products (SIC 24), Paper and Allied Products (SIC 26), and selected Primary Metal Industries (in SIC 33). It is similar to the EIA-846(A) questionnaire except that it collects additional information on shipments of energy sources produced onsite and a different set of specific technologies related to energy efficiency.

The questionnaires were mailed to the in-scope MECS sample establishments in May of 1995.[32] Returned questionnaires were subjected to initial screening procedures for completeness, and incomplete forms or responses with obvious inconsistencies were set aside for review by industry specialists. Valid returned questionnaires were forwarded directly to check-in and then to data entry.

All forms that were incomplete or failed the initial screening procedures were carefully reviewed by the industry specialists from the Bureau of the Census and EIA. Those specialists retrieved missing data and verified questionable items by telephone contact with the individual who completed the questionnaire. Once the forms were completed and verified, they were forwarded to check-in and to data entry.

The resulting MECS data file was then subjected to a series of computer edits. Those edits included consistency checks among data items from different parts of the MECS and between the MECS and the 1994 ASM, as well as checks for outliers in the distribution of individual variables. Records with failed edits were reviewed and followed up by industry specialists.

Development of the Data File

The estimates in this report were developed from a data file consisting of both directly reported values and more complex items derived from a combination of directly reported values. Reported values consist of responses to the 1994 MECS questionnaires (see Appendix D). Those values were supplemented by estimates of energy consumption for nonfuel purposes and offsite-produced fuel consumption at petroleum refineries from another EIA questionnaire.[33] Additionally, the responses to the questionnaire for each responding establishment were supplemented by the following economic data:

- Value of shipments and receipts
- Value added by manufacturing
- Total employment.

Those economic data were not collected by the 1994 MECS but were provided by the Census Bureau by linking the 1994 ASM economic data and MECS energy data at the establishment level. Since the MECS was selected from the updated 1992 CM mail file, nearly 7 thousand establishments had economic data imputed (see Appendix C, Quality of the Data).

The reported energy values were used to construct several derived values, which, in turn, were used to prepare the estimates appearing in selected tables in this report (see the Survey Estimates section in this appendix). Those derived values are defined as follows:

1. **Energy Produced Offsite and Consumed as Fuel.** This derived value represents onsite consumption of fuels that were originally produced offsite. That is, they arrived at the establishment as the result of a purchase, or were transferred to the establishment from outside sources. As such, this derived value is equivalent to "consumption of purchased" fuels as reported by the Census Bureau for the years 1974 through 1981. The Census Bureau defines "purchased" fuels to include those actually purchased plus those transferred in from other establishments.[34]

2. **Energy Produced Offsite and Consumed for Nonfuel Purposes.** This derived value also represents energy that was originally produced offsite. This energy was used at the establishment site as raw material inputs and feedstocks.

[32]The MECS sample is selected according to establishment characteristics. However, the central administrative offices of multi-establishment companies were the addressees of the questionnaires and were responsible for distributing them to their establishments.

[33]The calculations for those quantities are discussed in the Consumption for Nonfuel Purposes at Refineries section and in the Offsite-Produced Fuel Use at Refineries section in this appendix.

[34]U.S. Department of Commerce, Bureau of the Census, *Annual Survey (Census) of Manufactures*, "Fuels and Electric Energy Consumed," 1974-1982 (Washington, DC).

3. **Energy Produced Onsite from Nonenergy Inputs and Consumed Onsite as Fuel.** This derived value covers materials such as wood chips, bark, and wood waste and pulping liquor. These fuels are produced primarily in pulp and paper mills as a byproduct of wood used in the pulping process. Wood for pulping is not classified as energy in the MECS, and, therefore, would not have been included as an input. This derived value also covers waste materials, biomass, and hydrogen that was produced from the electrolysis of brine. Energy sources such as petroleum and coal that were consumed as fuel and originated onsite from captive mines or wells (an unusual occurrence) are included here also.

4. **Energy Produced Onsite from Nonenergy Inputs and Consumed for Nonfuel Purposes.** Most onsite-produced energy that is used for nonfuel purposes is derived from other types of energy. The major exception is hydrogen that is produced from the electrolysis of brine. The consumption of hydrogen for nonfuel purposes that is produced from the electrolysis of brine is the major example of this derived value. Energy sources such as petroleum and coal that were consumed as a nonfuel and originated onsite from captive mines or wells are included here also.

5. **Energy Produced Onsite from Energy Inputs and Consumed as Fuel.** This derived value covers a wide range of fuels consumed onsite that are produced onsite as direct products or byproducts of other types of energy.

6. **Energy Produced Onsite from Energy Inputs and Consumed Onsite for Nonfuel Purposes.** This derived value includes all petrochemical feedstocks and other raw material inputs that were produced onsite from existing energy or from other onsite-produced energy.

7. **Energy Produced Onsite from Energy Inputs and Shipped to Other Establishments.** This derived value is continued from the 1991 MECS. Data are now collected for certain industries that produce and sell energy sources to other establishments. Most notably, these industries include Blast Furnaces and Steel Mills (SIC 3312) and various industries in Chemicals and Allied Products (SIC 28). If an establishment converts an energy source into a fuel and then ships it offsite to another establishment, the total Btu quantity among the producing and receiving establishments would be duplicative and thus overstated. By deducting this derived value from the producing establishments, the amount consumed at the receiving establishments is not duplicative.

The first four of the derived values represent an addition to the energy consumed onsite and are described in this publication as First Use (formerly Primary Consumption); that is, either energy was produced offsite or was produced onsite from nonenergy inputs. The fifth derived value described above does not represent an addition because it was produced onsite from energy that is already reported as input. Such energy represents duplicate counting of the input energy content. It is, however, a useful measure of onsite-produced fuel consumption and is not duplicative with respect to an estimate of total fuel consumption. The sixth derived value is duplicative with respect to the consumption of energy for nonfuel purposes, and, therefore, was not used to prepare estimates. It was included only for computational purposes and completeness. The seventh derived value—appearing in Table A1 of this report—is used to adjust First Use of Energy (formerly Primary Consumption). This adjustment was also included in the detailed tables of Appendix A; hence, there is a disconnect in table calculations between the 1991 and 1994 MECS. This adjustment must be either excluded from 1994 estimates or included with 1991 estimates in order for the statistics from these two cycles to be totally comparable.

Assumptions Underlying Derived Values

Two basic assumptions are necessary to produce the derived values from the data reported on the MECS questionnaire. First, it is assumed that any energy produced onsite is disposed of as it is produced. That is, it is burned as fuel and/or consumed as input or feedstock; any excess is flared, dumped, transferred out, sold, or placed into inventory. For the purpose of computing the derived values, a quantity of an energy source produced onsite and placed into inventory *during the previous year* is not considered onsite production in the reporting year. A corollary of this assumption is that any energy source that was consumed onsite and originated offsite was acquired only if there was not sufficient onsite production to meet the establishment's needs of the energy source in the current year. Second, it is assumed that the priority use of onsite production is first as a shipment (if applicable), then as input or feedstock, and last as fuel. These assumptions are believed to reflect the energy use patterns at the vast majority of, but not all, establishments. The assumptions do provide a consistent method of determining an establishment's nonduplicative total energy consumption and its reliance on outside providers to supply it.

The Estimation Process

Estimates in this report represented 98 percent of the total of manufacturing payroll and shipments in the CM universe—coverage equivalent to the 1994 ASM mail file. The 2 percent not covered are the smallest manufacturing establishments, which were not sent an ASM form. ASM imputes those establishments' data for publications by using industry averages. As discussed previously, the MECS no longer covers the small establishments either directly or through a ratio adjustment.

Population representation is accomplished by weighting the data from the establishment records in the consumption data file. Weighting is the process of multiplying the reported or derived values by a case-specific constant designed to inflate the data from each sample case to that portion of the population that it represents. The first, basic component in the MECS weights is the sampling weight. The sampling weight for a MECS sample case is the reciprocal of its overall probability of selection into the MECS.

The second component of the MECS weights is an adjustment for nonresponse. Adjustment factors to account for nonresponse were calculated by using the known energy measures of size of the respondents and the total sample. Because an establishment is selected into the MECS sample with a probability proportional to the establishment's energy measure of size, that measure can be viewed as an establishment's estimated contribution to energy expenditures in 1994. A separate adjustment factor was computed for each of the 72 sampling strata[35] and took the form:

$$a_s = \frac{\sum_{j}^{Sample} MOS_{s,j}}{\sum_{i}^{Resp.} MOS_{s,i}}, \quad (1)$$

where $MOS_{s,j}$ is the measure of size for MECS sample establishment j in stratum s, and $MOS_{s,i}$ is the measure of size for MECS respondent I in stratum s. The adjustment factor was then multiplied by the sampling weight to produce the final MECS weight.

Feedstock and Offsite-Produced Fuel at Petroleum Refineries

The basic function of a petroleum refinery (SIC 2911) is to manufacture a wide variety of petroleum products from crude oil and other liquid hydrocarbon inputs. Those products can be grouped into three classes of use. The largest portion of refinery output is in the form of fuels that are ultimately consumed strictly for their energy content (e.g., motor gasoline, kerosene, and diesel oil). Many refinery products, however, are consumed not for their energy content but for their chemical properties. This class of energy products is generally known as petrochemical feedstock. Finally, a third class of product consists of finished materials that are consumed for specific physical properties, rather than for their energy content or chemical properties. Those finished materials include asphalt, lubricants, waxes, and solvents, and are referred to as nonenergy products.[36]

The MECS was specifically designed to collect information on the consumption of energy for heat, power, and electricity generation, and as petrochemical feedstock and other raw material inputs. The consumption of energy was reported directly by the establishments in the MECS sample, and the estimates in this report reflect that consumption. For most

[35]For the 1985 MECS, adjustment cells were defined by cross-classifying sampling stratum with levels of employment size category. Employment size proved not to be worthwhile for use as an adjustment factor and was discontinued for later surveys.

[36]Certain petroleum products can be classified according to the end user of the product. For example, propane might be a fuel or feedstock, depending on the needs of the receiving establishment.

industries, the end result of energy inputs is manufactured products that are not considered energy products. However, fuels produced from refinery inputs are treated as energy products by their subsequent users[37] and are reported not only in other manufacturing industries, but also in EIA surveys of consumption in other end-use sectors (residential households, residential vehicles, and commercial buildings). In that sense, refineries do not "use up" the majority of their inputs. They merely convert them from one form of energy (for example, crude oil) to another more usable form (for example, motor gasoline). Therefore, classifying refinery inputs that go into fuels and certain petrochemical feedstocks as refinery consumption would have resulted in massive double counting of total energy consumption, both within the manufacturing sector and across other energy-consuming sectors in the U.S. economy.

The second and third class of refinery products, petrochemical feedstock and nonenergy products, must be treated differently. The creation of those products by the refinery also requires energy inputs, primarily crude oil. The products are combustible and have a known heat content expressed in British thermal units (Btu). Asphalt, for example, contains 6.636 million Btu per 42-gallon barrel. However, the products are not recognized as energy by their subsequent consumers, and no provision was made for collecting data on their consumption from the MECS respondents. Therefore, the transformation of energy inputs to feedstock and nonenergy products must be counted as refinery consumption, or it will never be accounted for anywhere in EIA's consumption surveys.

One characteristic of petroleum refineries is that, except for losses caused by spills, contamination, etc., the Btu content of the energy inputs exactly equals the Btu content of the outputs, both energy and nonenergy. As energy products will be declared energy inputs by receiving establishments, only the Btu quantity of the nonenergy products will not be duplicative of other establishments' consumption. Therefore, EIA includes the Btu value of the nonenergy products in the petroleum refinery nonfuel and first-use estimates as a surrogate for the portion of the energy inputs that were used to produce them. EIA produces such information for all refinery products from the "Monthly Refinery Report," Form EIA-810. This form collects information on the monthly shipments from the universe of refineries in the United States. Those data were the basis for estimating the input energy requirements for the nonenergy products.

The shipment quantities, adjusted for changes in annual inventories, of the nonenergy products and certain classifications of petrochemical feedstock, as reported on the "Monthly Refinery Report," were converted to Btu and summed to produce a monthly refinery total. Those totals were then summed across refineries and months to produce the total Btu value of refinery shipments of nonenergy products for 1994. That total was used to represent the total Btu value of the inputs used to produce the nonenergy products and was inserted directly into the appropriate tables of this report to represent nonfuel consumption in refineries (see Survey Estimates in this appendix). Because the individual energy inputs corresponding to these shipments were not identified, the Btu value was entered in the "Other" column.

The "Monthly Refinery Report" covers only the refinery part of an establishment, while the MECS Forms EIA-846(A) through (C) cover energy use at the entire site, as defined by the Bureau of the Census. This difference affects MECS estimation only for cases in which a MECS report reflects energy use at both a refinery and a co-located petrochemical plant. For these cases, establishment nonfuel use is not completely estimated by shipments of refinery nonenergy products as measured by the EIA-810. The format of the MECS refining report, Form EIA-846(B) (see Appendix D), allows respondents to report energy-related data from a petrochemical plant co-located with the refinery. Form EIA-846(B) collected nonfuel use at and shipments of energy sources from the co-located petrochemical plant (Columns 9 and 10 of Section II). The total Btu of the consumption as a nonfuel minus the petrochemical plant shipments of energy sources is added across energy sources and establishments to the previously discussed refinery shipments of nonenergy sources. Note that for the petrochemical plant, estimation of nonfuel use is measured directly, as the majority of that usage does not appear in products that will later be converted to fuel use by other manufacturing plants. The additional nonfuel use estimated for the adjoining petrochemical plants proved to be small relative to the refinery usage because the majority of petrochemical plants report separately on the MECS. Because the resulting quantities were unreliable[38] and quite small compared to refinery shipments of nonenergy sources, they were excluded from the total refinery nonfuel estimates.

The EIA-810 data are also used to calculate the offsite-produced fuel use at the refinery establishment (see Derived Values in this appendix). Because Version A of Section II of Form EIA-846(B) collects only total fuel use of petroleum products (regardless of their origin), it was necessary to use the EIA-810 data to calculate the offsite-produced fuel ratio

[37]Whether a respondent reports petrochemical feedstock as an energy source receipt often depends on the type of feedstock received. If the feedstock received is commonly used as a fuel, such as distillate fuel oil or ethane, then it is assumed that respondents will report it as an energy source receipt. If the refinery product received for petrochemical feedstock use is not normally considered a fuel, the assumption is made that respondents would not report it as an energy source receipt.

[38]Examination of the MECS refinery reports showed evidence that reporting for the adjoining petrochemical operations in the last two columns caused considerable respondent confusion.

for those products. Estimation of the ratio utilized the same assumptions described in the section in this appendix on Assumptions Underlying Derived Values, except that EIA-810 data were used instead. This ratio is then applied to the MECS estimated value of total fuel.[39] The estimator takes the form:

$$O_{p,MECS} = \left(\frac{O_{p,EIA\text{-}810}}{F_{p,EIA\text{-}810}} \right) \bullet F_{p,MECS} \qquad (2)$$

where $O_{p,MECS}$ is the MECS estimate of the amount of petroleum product p produced offsite and consumed as fuel, $O_{p,EIA\text{-}810}$ is the EIA-810 estimate of the amount of petroleum product p produced offsite and consumed as fuel, $F_{p,MECS}$ is the MECS estimate of total fuel use of petroleum product p, and $F_{p,EIA\text{-}810}$ is the EIA-810 estimate of the total fuel use of petroleum product p.

Estimates of the contribution to fuel consumption of offsite-produced nonpetroleum products are calculated directly from MECS data, applying the same estimation method employed in other SICs.

Shipments of Energy Sources Produced Onsite

Manufacturers who produce energy sources do so not only for their own consumption but often sell or transfer the products to other establishments. The most notable example in manufacturing is petroleum refineries. Energy consumption for those establishments is estimated by using a special method as has been explained in the immediately preceding section. The principal products of petroleum refineries are energy sources. First Use (formerly primary consumption) in petroleum refineries, by virtue of the special method already described, does not need to account for outgoing energy products because it excludes incoming energy sources used for raw materials. Yet there are other types of manufacturers that produce and sell energy sources as secondary products. If the energy content of the sold energy source materials from the secondary products are counted at the producing establishment, there would be double counting when the energy source is counted at the receiving establishment. First Use consumption, as currently defined, avoids double counting of *intra*-establishment use of an energy source that results from an onsite transformation from another energy source. In addition, it avoids double counting of *inter*-establishment use of such transformed energy sources. In 1991, the MECS included a table in the appendix that could be used to adjust First Use by deducting the amount of sold energy sources that were produced onsite. For the 1994 MECS, the estimates can be found in Table A1.

The example that has the greatest effect on total energy consumption is coal used to make coke. A steel mill processes coal to make coke for later use in the steel making process. For example, First Use consumption counts the quantity of coal as the original nonfuel input. Any onsite consumption of coke is not included in First Use consumption as it duplicates the coal use. If the steel mill sells and ships some of the coke to another establishment, it will show up as a shipment of an offsite-produced energy source in the second establishment and will be included in first use consumption. That would result in double counting.

First Use (formerly primary consumption) eliminates double counting of *inter*-establishment energy shipments by subtracting the energy equivalent of coke shipments from First Use of energy. In 1994, the total shipments adjustment was 587 trillion Btu. This means that a better estimate of total first use consumption is 21,663 trillion Btu. If the purpose is to compare with previous years, then the 587 trillion Btu needs to be added back in. The 22,250 trillion Btu for total first use can then be compared to the amounts used in earlier MECS years.

[39]The MECS value for total fuel would also include the amount used at the adjoining petrochemical plant if one were present. Using a ratio based on refinery-only data from the EIA-810 on that portion of the establishment is a source of error. However, refinery fuel use will usually dominate the petrochemical fuel use, especially for petroleum products.

Concept of Fuel-Switching Capability

EIA continues to employ the concept of fuel switching that was developed prior to the 1985 survey. After extensive consultation with potential data users and data providers for the 1985 survey, EIA developed a tightly specified concept of fuel-switching capability based on the following set of principles:

- Switching data would cover consumption of energy for heat, power, and onsite electricity generation only. Switching of energy consumed as feedstock or raw material inputs would not be considered.

- Switching data would focus on capability (what could be done) rather than actual performance (what was, or is being done) or future possibilities (what might be possible).

- Switching capability would be collected for a closed historical reference period, rather than the present or some future reference period.

- Switching capability would be collected for the 1-year reference period used for MECS consumption data to tie in with the consumption data and avoid seasonal bias.

- The survey would measure short-term response capability: that is, actions that could have taken place within 30 days of a decision to switch.

- Switching capability would reflect the total flexibility provided by an establishment's equipment configuration. Both multiple-fired equipment and redundant or backup equipment could contribute to capability.

- The survey would measure in-place capability: that is, capability provided by equipment that was already installed or was available at the establishment for installation during the reference period. Major modifications to the design capabilities of equipment and major capital expenditures were not to be considered in assessing capability.

- Switching capability would be valid only if, following the switch from one type of energy to another, the establishment would have been able to maintain its actual production schedule during the reference period.

- Switching capability provided by an establishment's equipment configuration could be limited or negated by legal or practical constraints, such as binding supply contracts, interruptible service, environmental regulations, or unavailability of supply or delivery systems for a potential alternative.

- Economic considerations were *not* to be considered a practical constraint in evaluating switching capability. The survey was designed to measure potential response to changes in economics or supply patterns.

The MECS obtained fuel-switching data by asking respondents to determine the amounts of 1994 input energy consumption of six major types of energy that could have been switched to one or more alternatives in accordance with the previously listed principles. The six types of energy were purchased electricity, natural gas, distillate oil, residual oil, coal (excluding coke),[40] and LPG. Respondents were directed to provide the quantities of switchable consumption by subtracting the quantities that were not switchable from the quantities that were actually consumed during 1994. Such an approach is clear and saves burden because it starts with a previously reported quantity and allows the respondent to subtract quantities known to be nonswitchable because of any one of the various conditions discussed above. The alternative would be to force the respondent to add up quantities for all energy uses for which all aspects of the concept are satisfied. Once the total switchable quantities had been determined, the remaining task was to determine how much of each switchable quantity could have been replaced by specific alternatives.

[40]Coke was excluded because it was found to be virtually nonswitchable in its most common use, the production of steel. Integrated steel mills, for a variety of reasons, have traditionally attempted to minimize the amount of coke required to produce hot metal. Hence, the capability of switching coke is more related to minimizing its use, than to the capacity to switch.

In 1994, for the first time, EIA expanded on the base of fuel-switching capabilities and investigated actual fuel switching. That investigation targeted the decision-making process of actually switching energy. Based on user-need studies and past fuel-switching capabilities, investigation of actual fuel switching was limited to switches between residual fuel oil and natural gas.

How To Measure Discretionary Fuel Use

One of the more interesting summary statistics that can be developed from the estimates of actual consumption, minimum consumption, and maximum consumption is the **discretionary-use rate**. The discretionary-use rate is a measure, in percent, of the extent to which manufacturers elected to consume discretionary quantities of a given energy source.

The discretionary-use rate is calculated as:

$$USE = \frac{ACT - MIN}{MAX - MIN} \times 100 \qquad (3)$$

where USE is the discretionary-use rate of a given energy source,
ACT is the actual consumption of that energy source,
MIN is the minimum consumption, which would have been achieved if all ascertained switching *from* that type of energy had occurred.
and MAX is the maximum consumption, which would have been achieved if all ascertained switching *into* that type of energy had occurred.

Thus, the discretionary-use rate is a measure, in percent, of the depth into the discretionary range of consumption to which manufacturers chose to go, given their fuel-switching capabilities and production levels of 1994.

If manufacturers had chosen to minimize their consumption of a given energy source by using alternative energy sources whenever possible, then ACT = MIN, and the discretionary-use rate would be 0 percent. At the other extreme, if manufacturers had chosen to maximize the consumption of a given energy source by using that energy source whenever possible, then ACT = MAX, and the discretionary-use rate would be 100 percent.

Note that (ACT - MIN) is equivalent to the "switchable" amount of the given energy source that was consumed, that is, the amount of the energy source that was consumed even though it could have been switched to another energy source.

Survey Estimates Presented in Appendix A

Except for some estimates of energy consumption for nonfuel purposes at petroleum refineries, all energy consumption and energy-related statistics produced from MECS data are calculated by inflating the data collected from the responding establishments with the adjusted sampling weights. Those weights establish the relationship between the responding establishments and the manufacturing population as defined for the MECS. Three types of statistics are shown in this report: aggregates (for example, total natural gas consumption in the hydraulic cement industry), ratios (for example, the amount of fuel consumed per dollar of value added in the manufacturing sector), and number of establishments (for example, the number of establishments engaged in a certain activity). These statistics are based on the originally reported values, or the derived values discussed earlier, and appear in Tables A1 through A44.

In 1994, for the first time, a MECS consumption report presents number of establishment estimates. Conceptually, these table of estimates represent sister tables to consumption tables. In earlier surveys, limited sample size precluded the estimation of establishment numbers. With a nearly 7-thousand increase in sample size for 1994, *number of establishment* estimates have been derived by adjusting the Horvitz-Thompson estimator,[41]

[41]Steven K. Thompson, *Sampling* (New York: John Wiley & Sons, Inc., 1992).

$$\hat{U} = \sum_{i=1}^{n} u_i \cdot W_i, \tag{4}$$

where u_i is a binary variable--1 if the i^{th} establishment is in the domain of interest, 0 otherwise; and W_i is the nonresponse-adjusted sample weight of the i^{th} establishment. The adjusted Horvitz-Thompson estimator is as follows:

$$\hat{U}_s = \frac{N_s}{\hat{N}_s} \sum_{i=1}^{n_s} u_i \cdot W_i, \tag{5}$$

where N_s denotes the universe of the sample frame for SIC s; u is a binary variable—1 for establishments in the domain of interest, 0 otherwise--representing the i^{th} establishment's existence in the domain of interest (for example, consuming natural gas, participating in an energy-management program, and so on); W denotes the nonresponse-adjusted sample weight for the i^{th} establishment; n_s is the number of sampled establishments in SIC s that responded to the survey; and $\hat{N}_s$ represents the summation of the adjusted sample weights of all responding establishments at the s SIC level.

For higher levels of population-count totals, the number of establishment values at the SIC level were aggregated. This yields the expression:

$$\hat{U} = \sum_{s \in S} \hat{U}_s = \sum_{s \in S} \frac{N_s}{\hat{N}_s} \sum_{i=1}^{n_s} u_i \cdot W_i. \tag{6}$$

The sample frame (N_s) was assembled from both the 1992 CM and the 1993 ASM. Hence, it represents the best frame available. As with all frames, there are coverage errors. There exist some establishments (ineligible units) that should not have been included, as well as some establishments (missing units) that should have been included but were not. In survey processing, ineligible units can be ascertained. However, missing units are not identified.

For *number of establishment* estimates, the control count (N) is equal to the frame size. Hence, the control counts include the identified ineligible units. If one were to assume that no missing cases existed and that all ineligible units had been identified, then lowering of the control number (N) to account for those coverage errors could have been justified. Instead of lowering the control number, it was assumed that the weighted number of missing and ineligible cases negated each other--there were equal numbers of (weighted) missing and ineligible cases. Given that assumption, the control number obtained from the original sample frame was retained.

First Use (Formerly Primary Consumption) of Energy for All Purposes

In previous reports, the term "Primary Consumption" was unclear and misunderstood by data users. Instead of interpreting Primary Consumption as the first use of energy at the manufacturing site (as it was intended), some readers interpreted *primary* as accounting for energy losses in generating and transmitting electricity. To avoid future misunderstandings, the term *Primary* has been renamed *First Use* in this report and for all subsequent reports.

Table A1 presents estimates of the total First Use of Energy for All Purposes by the manufacturing sector. This measure is intended to represent total demand for energy by manufactures. Except for petroleum refineries, the estimates in Table A1 are based on the following derived values:

- Energy produced offsite and consumed as fuel

- Energy produced offsite and consumed for nonfuel purposes
- Energy produced onsite from nonenergy inputs and consumed as fuel
- Energy produced onsite from nonenergy inputs and consumed for nonfuel purposes
- Energy shipments offsite (as a subtraction from the first-use total per SIC).

Table A1 also includes estimates of net electricity and steam consumption: that is, purchases plus transfers in and generation from noncombustible renewable resources, minus quantities sold and transferred out. First use excludes quantities of energy that were produced from other energy inputs and, therefore, avoids intra-establishment double counting.

The estimates shown in the petroleum refinery row of Table A1 are conceptually different from the estimates in the other rows of that table. For all industries except petroleum refineries, each cell represents the total first use of energy for all purposes. In the petroleum refinery row, the cell entries for "net electricity" through "coke and breeze" represent only the quantities of given type of energy that was consumed as fuel. The "Other" cell of the petroleum refinery row includes other energy that was consumed as fuel plus the quantity of energy (mostly crude oil) that was consumed for the production of nonenergy products, as estimated by the Btu value of the shipments. Note that although the estimates shown in the refinery row are computed differently, the total Btu does represent a nonduplicative measure of first use. (For more information, refer to Feedstock and Offsite-Produced Fuel at Petroleum Refineries in this appendix.)

First Use (Formerly Primary Consumption) of Energy for Nonfuel Purposes

Table A3 presents the total first use of combustible energy for nonfuel purposes. This table is based upon aggregates of the derived values of energy produced offsite plus those produced onsite from nonenergy inputs, and consumed onsite for nonfuel purposes. Table A3 presents the nonfuel first use component of Table A1. The entry in the "Other" column of the petroleum refinery row of Table A3 represents the total inputs (mostly crude oil) for the production of nonenergy products. The other cells in the petroleum refinery row contain zeros because refinery inputs are available in aggregate form only.

Except for petroleum refineries (see Feedstock and Offsite-Produced Fuel at Petroleum Refineries in this appendix), the estimates in Table A3 are based on the following derived values:

- Energy produced offsite and consumed for nonfuel purposes
- Energy produced onsite from nonenergy inputs and consumed for nonfuel purposes.

Input Energy for Heat, Power, and Electricity Generation

Table A4 presents estimates of input energy for the production of heat, power, and electricity generation. For combustible energy, the estimates are based upon the reported MECS questionnaire responses to "quantity consumed onsite as fuel" (see Appendix D). That reported value is exactly equal to the sum of the following derived values:

- Energy produced offsite and consumed as fuel
- Energy produced onsite from nonenergy inputs and consumed as fuel
- Energy produced onsite from energy products and consumed as fuel.

Thus, the estimates of combustible energy in Table A4 represent total consumption as fuel, regardless of where the energy was produced.

The consumption estimates for fuel use are not duplicative. There is clearly no duplication for quantities that were produced offsite or for those produced onsite from nonenergy sources. Quantities produced onsite from other energy

inputs result from consumption of an energy source as feedstock or raw material input. They do not result from the consumption of an energy as fuel.

Examples of energy produced onsite from other energy sources include

- Coke oven gas produced as a byproduct of the destructive distillation of coal to produce coke
- Petroleum coke produced in refineries as a result of the high-temperature treatment of petroleum fractions
- Still gas produced in refineries as a result of distillation, cracking, reforming, and other processes.

From those examples, it is clear that the input energy was not consumed as a fuel and would not have been included elsewhere in Table A4.

The estimates of electricity and steam (note that steam is included in the "Other" energy category) must conform to the same criteria as combustible energy. That is, they must represent inputs to produce heat and power and to generate electricity that do not duplicate energy content represented elsewhere in Table A4.

In the case of electricity, the quantities generated onsite by conventional generation or cogeneration must be excluded because the input fuels (coal, for example) to produce the electricity are already counted elsewhere in the table. Thus, the nonduplicative measure of electricity input for Table A4 is the same net electricity estimate that appeared in Table A1. The same rationale applies to steam. Onsite production is excluded because the input fuel would be counted elsewhere. Thus, the allocation of energy to the various sources shown in Table A4 is consistent with a concept of First Use of Energy for Heat, Power, and Electricity Generation.

Other Topics

Table A2 presents consumption estimates of selected petroleum products expressed in barrels per day rather than in barrels. Included are three estimates of consumption that have been described previously: (1) first use of energy (Table A1), (2) total inputs of energy (Table A4), and (3) consumption for nonfuel purposes (Table A3). These estimates are presented for the convenience of the data user and were derived simply by taking the annual consumption estimate and dividing by 365.

Table A5 presents the total consumption of offsite-produced energy sources as fuel. As noted, these estimates are conceptually equivalent to the Census Bureau's "purchased" fuels. The estimates in Table A5 are based on those estimates of energy produced offsite and consumed onsite as fuel.

Table A6 presents quantities of total inputs of byproduct and "Other" energy sources used as fuel. These estimates are components of the estimates of combustible energy sources found in the last column of Table A4. Net steam (see explanation for Table A4) is not included in Table A6 but is included in the "Other" column in Table A4.

Table A7 is a new table that provides the square footage of manufacturing floorspace in the United States.

Tables A8 through A10 present results obtained when respondents were asked to assign their total input energy consumption of selected major energy sources to various end uses in the establishment. The energy consumption measures used as a baseline for each combustible energy source are found in Table A4. The measures are shown in Tables A8 through A10 as the line item "Total Inputs." Electricity end-use data were collected on the MECS questionnaire as net demand for electricity (purchases plus transfers in plus onsite generation minus sales and transfers out). Those estimates first appear in Table A11 and were collected for end-use data because quantities of net demand represent the actual amount available for use at the establishment. Table A10 shows the results of using that measure of electricity consumption.

Net demand for electricity duplicates the fuel consumption of combustible energy sources used in the process of electricity generation. Tables A8 and A9 show the end-use estimates using the concept of net electricity. Net electricity, the concept used in conjunction with "First Use of Energy" and "Total Inputs of Energy for Heat, Power, and Electricity Generation," is defined as the sum of purchases and transfers in plus onsite generation from noncombustible renewable

resources minus sales and transfers out. Unlike net demand for electricity, net electricity excludes onsite generation of electricity from combustible energy sources. Thus, it does not double count the energy content of combustible energy sources used to generate electricity. End-use consumption in terms of net electricity was calculated by forming ratios of net demand for electricity for each end use to total net demand for electricity at the establishment and multiplying those ratios by the quantity of net electricity at the establishment.

The total inputs rows in Tables A8 and A9 include the category "Other" to show how much of the total input energy is not accounted for by major energy sources. For some SICs it is a substantial amount. For example, coal coke and refinery off-gas are significant contributors to boiler fuel and process heat. Data are not available to break down the "Other" category by end-use. Further, steam (the major output from boilers) is excluded from these tables. Consequently, total input energy for any end-use category other than boiler fuel would be underestimated by the amount of steam that contributes to that end use.[42] Therefore, summing consumption over the end-use categories for which data are available would give a misleading indication of the energy actually used.

For any individual energy source, the estimates in the end-use categories represent direct use. When electricity is considered independently of the combustible energy sources, the more meaningful amount would be in terms of net demand (Table A10) rather than net electricity (Tables A8 and A9).

Table A11 presents components of electricity demand. These quantities are calculated directly from responses to the MECS questionnaire. Note that the quantity "net demand for electricity" is not equivalent to "net electricity" shown in Tables A1 and A4. The latter quantity excludes onsite generation by combustible energy sources.

Table A12 presents components of onsite electricity generation. These components are cogeneration, generation using renewable energy sources, and conventional generation using combustible energy sources. These data are weighted totals of reported responses.

Table A13 is a new table that classifies electricity cogeneration by cogeneration technology.

Table A14 presents quantities of electricity sold to utility and nonutility purchasers. These data are weighted totals of reported responses.

Tables A15, A17, and A20 present purchases, expenditures, and average prices for energy sources. The purchased quantities shown in Tables A15 are *not* values of consumption. These data are the amounts actually purchased in the open market regardless of their later disposition. Quantities received through transfers or from a central purchasing office are excluded. The prices shown in Table A20 are the results of simple division of the expenditures presented in Table A17 by the purchased quantities in Table A15. Prices are shown in both dollars per physical unit and dollars per million Btu. Both the expenditures and quantities purchased were values estimated directly from responses to the MECS questionnaires.

Tables A16, A18, A19, A21, and A22 present purchases, expenditures, and prices for electricity and steam. These tables break down the gross purchases for these energy sources by the type of supplier. Electricity and steam suppliers are either utilities or nonutilities.

Table A23 presents estimates of several energy-related operating ratios. These estimates are computed from energy data reported by the MECS responding establishments and economic data reported on the ASM for the same establishments. The consumption values used in the formation of these ratios appear in Table A4. It is not possible to reconstruct exactly the 1994 ASM estimates of economic variables by dividing MECS consumption by corresponding ratios of consumption per economic unit. Due to different purposes of the MECS and ASM, the size and weighting scheme of the MECS and ASM samples are different. Therefore, a MECS estimate for an economic variable would be expected to be slightly different due to sampling error, especially for the entries representing a relatively small number of establishments.

Tables A24 and A25 present estimates of participation by establishments in energy-management activities. Total input energy is the measure of interest. If an establishment indicates participation in an activity, its energy consumption is counted in the appropriate category. If not, it is counted in "None Identified."[43] Table A24 also shows subcategories

[42]In the case of cogeneration, the underestimation could be expressed in terms of an unknown amount of steam and electricity.

[43]Until the 1994 MECS, participation had to be shown as total inputs of energy. The 1994 MECS can also show establishment counts.

of participation: electric utility sponsorship (often referred to as demand-side management), self, government sponsorship, or third-party sponsorship.

Tables A26 and A27 present estimates of total input energy consumption broken down by employment size of establishment, value of shipments, and presence of selected energy-saving technologies. These technologies are known to save energy but may not have been installed for that purpose.

Tables A28 through A36, most of which are new tables, investigate the fuel-switching capability and actual switching of fuels between natural gas and residual fuel oil.

Tables A37 through A40 present estimates of the capability of substituting specific alternative types of energy for those actually consumed, holding production constant. Each table contains information for the specific type of energy that was actually consumed for the production of heat, power, and generated electricity in 1994. It should be noted that the first column of Table A37 refers to "Total Receipts" of electricity, while the first column of Tables A29, A33, A38, A39, and A40 refers to "Total Consumed" natural gas, residual fuel oil, distillate fuel oil, coal, and LPG, respectively.

Thus, the quantities of electricity generated onsite are excluded, as are the quantities of electricity leaving the establishment site. When considering fuel-switching capabilities, total electricity receipts is a more meaningful quantity than total electricity consumption. A respondent who has onsite generation of electricity has, more than likely, used an additional amount of a combustible energy source to operate the generator. It is a valid question to ask, "How much of that self-generation is replaceable by electricity receipts?" However, it is more reasonable and of greater interest to collect the fuel-switching data for the fuel used to generate the electricity by asking respondents to show the quantity of electricity receipts that could replace the combustible fuel.

In Tables A29, A33, and A37 through A40 the estimates provided in each column under "Alternative Types of Energy" should be considered independently because respondents were instructed to enter the maximum amount of the quantity of the energy actually consumed that could have been replaced by a given alternative. Because each value represents the maximum quantity of electricity receipts that could have been replaced, their sum exceeds the total quantity of electricity that was ascertained as switchable. That difference indicates that some establishments had more than one type of energy that could have been substituted for electricity usage during 1994.

Tables A41 and A42 are new tables that tabulate information about electric motors.

Table A43 is a new table that gives the consumption of wood and related products, including biomass.

Table A44 is a new table that provides a more detailed classification of the "Other" category in Table A1.

Number of Establishments

For the first time, MECS presents estimates for number of manufacturing establishments. These estimates appear as companion tables to several of the consumption tables given above, where appropriate. These estimates use an adjusted Horvitz-Thompson estimator as the means to calculate number of establishments. For further details, see Survey Estimates Presented in Appendix A in this appendix.

The Heat Content of Energy Sources

Many of the estimates of individual energy sources in this report are presented in physical units (kilowatthours, barrels, and short tons). Row totals and combinations of types of energy are presented in Btu. Tables A1 through A5 are presented in physical units in Parts 1 and 2 and in Btu in Parts 3 and 4.

A Btu is the quantity of heat required to raise the temperature of 1 pound of water by 1 degree Fahrenheit. Thus, converting physical units of a given type of energy to Btu is a means of expressing the heat content of that energy source. All Btu quantities are in terms of higher heating value, with no regard for efficiency of use. Because no energy consumption process is 100-percent efficient (although some are considerably more energy efficient than others), Btu

figures must be considered as the maximum available heat content. Table B3 presents the Btu conversion factors of major types of energy.

Table B3. Conversion of Physical Units to British Thermal Units

Type of Energy	British Thermal Units (thousands)
Electricity (1,000 kilowatthours)	3,412
Residual Fuel Oil (42 gallon barrel)	6,287
Distillate Fuel Oil (42 gallon barrel)	5,825
Natural Gas (1,000 cubic feet)	1,030
Liquefied Petroleum Gas (42 gallon barrel)	3,606
Coke and Breeze (short ton)	24,800
Bituminous Coal and Lignite Used as Fuel (short ton)	22,036
Anthracite Coal and Lignite Used as Fuel (short ton)	26,280
Coal Used for Coking (short ton)	26,800

Source: EIA, *Annual Energy Review 1994*, DOE\EIA-0383(94) (Washington, DC, July 1995), Appendix A.

Appendix C

Quality of the Data

Appendix C

Quality of the Data

Introduction

All data collection activities and the population estimates produced from them are subject to a variety of errors. These errors may be broadly classified under two general types, sampling and nonsampling errors.

Sampling errors are defined as the variability in a survey estimator that arises because data used to estimate population values are collected from a sample of units rather than the complete enumeration of the entire population. Each possible sample produces different estimates of population values, depending on the set of respondents that are selected. Consider, for example, a sample of two units from a population comprised of three units. In this example, there exist three possible sample sets of respondents, each of which produces a different estimate of the population total. The difference between the estimate calculated from one of the samples and the population total is referred to as the sampling error.

Nonsampling errors, on the other hand, occur in any data collection activity, whether a sample survey or a complete enumeration of the population. Nonsampling errors may be associated with any part of a survey process except sampling and can include both random and systematic (biasing) errors. Commonly recognized sources of nonsampling error include undercoverage, random and systematic response errors, unit and item nonresponse, data processing errors, and tabulation errors. This appendix describes the effect of both sampling and nonsampling errors on data from the MECS. In addition, the measure for sampling errors of the population estimates are given. More details are presented in the methodological report for the MECS.[44]

Sampling Errors

The estimated values appearing in this report were developed from a sample of the universe of manufacturing establishments and, as a result, will differ from true population values that would be obtained from a complete enumeration of the manufacturing universe. This difference occurs because the MECS sample is only one of a very large number of samples that could have been selected under the same sampling specifications. Each possible sample would yield its own unique estimates of the true population values, with the differences attributable to the particular set of establishments selected into each sample.

One measure of variability due to sampling is the square root of the average of the squared differences between the estimates that would be produced by all possible samples and the mean value of those estimates. This type of measure is commonly known as sampling error. Estimates of the magnitude of these sampling errors based on data from a single sample are provided by a statistic known as the *standard error of an estimate*. There are two different types of statistics presented in this MECS: consumption estimates and population estimates. Each of these types has a different method of computing the standard error of the estimate.

Standard Errors of Consumption Statistics

Standard errors for MECS consumption estimates are directly computed from the reported data by using the formula:

$$S_{\hat{Y}} = \sqrt{\sum_{i=1}^{n} y_i^2 (W_i)(W_i - 1)}, \qquad (1)$$

[44] *Energy Information Administration, Manufacturing Energy Consumption Survey: Methodological Report 1985.* Although this report describes data quality in the 1985 MECS, much of the discussion still holds for the 1994 MECS.

where $\hat{Y} = \Sigma(y_i W_i)$ is the MECS survey estimator of weighted values reported by the i^{th} MECS sample establishment, y_i is the reported value of characteristic Y for the i^{th} MECS sample establishment, W_i is the final adjusted weight used to inflate the sample data to population estimates, and n is the number of MECS respondents. Justification for this formula is found in the MECS methodological report.

Standard Errors of Population Statistics

Standard errors for MECS population estimates are computed directly from the reported data by using the formula[45]:

$$S_{\hat{Y}} = \sqrt{\sum_{i=1}^{n} w_i(w_i - 1)(u_i - p)^2}, \quad (2)$$

where $\hat{Y} = \Sigma(y_i W_i)$ is the MECS survey estimator, w_i is the adjusted sample weight for establishment I, n is the number of respondents in the sample, u_i is equal to 1 if it is in the domain of interest or 0 otherwise for the i^{th} MECS sample establishment, and p is the proportion of the population that has the characteristic of interest

$$p = \frac{\sum_{i=1}^{n} u_i w_i}{\sum_{i=1}^{n} w_i}. \quad (3)$$

Estimates of standard errors have been computed from the MECS sample data for the estimated aggregate values and selected ratios appearing in this report. In the 1985 and 1988 MECS reports, measures of precision were presented separately in the form of relative standard errors (RSE), that is, the standard error divided by the estimated value to which it refers. In this report, as was the method used in the 1991 report, computed RSEs for Tables A1 through A44 are approximated in a two-factor model and are embedded into each table as "row and column factors."

Sampling Error from Generalized Variances

The RSEs computed by using standard errors from equations (**1**) and (**2**) may be efficiently modeled by a generalized variance procedure, which has been successfully used in several complex sample surveys conducted by EIA. This procedure provides a comprehensive means of reporting generalized relative standard errors, which minimizes the publishing space required to present standard errors and eases the reader's use of precision measures. Actual RSEs (by equations **1** and **2**) are used for statistical tests and confidence intervals presented in the text and for determining if a population estimate is too imprecise to publish (RSE greater than 50 percent).

The estimator used to approximate RSEs is based on a two-factor model. This model-based estimator is given as

$$\hat{RSE}_{i,j} = R_i \bullet C_j, \quad (4)$$

where R_i is the row factor for the i^{th} row and C_j is the column factor for the j^{th} column used to compute the generalized RSE of the sample estimate at the intersection of the i^{th} row and j^{th} column. Since RSEs calculated by this generalized variance technique are approximate, confidence intervals and statistical tests of significance must also be regarded as approximate. See Table C1 for a specific example of computing an approximate RSE. The three boxes that follow give examples of calculating the approximate standard error, calculating the confidence range of the estimate, and measuring statistical significance between any two estimates.

[45]Steven K. Thompson, *Sampling*, (New York: John Wiley & Sons, Inc. 1992), pp. 69-70.

Table C1. Calculation of Generalized Relative Standard Error (RSE)
Estimates Taken from Table A1: Total First Use of Energy for All Purposes, 1994: Part 2

(Estimates in Btu or Physical Units)

SIC Code	Industry Group and Industry	Total (trillion Btu)	Net Electricity (million kWh)	Residual Fuel Oil (1000 bbl)	Distillate Fuel Oil (1000 bbl)	Natural Gas (billion cu ft)	LPG (1000 bbl)	Coal (1000 short tons)	Coke and Breeze (1000 short tons)	Other (trillion Btu)	Shipments[a] (trillion Btu)	RSE Row Factors
	RSE Column Factors:	**0.5**	**0.5**	**1.2**	**1.1**	**0.6**	**1.1**	**1.2**	**1.5**	**1.1**	**1.8**	
		Total United States										
20	Food and Kindred Products	1,193	58,004	4,785	3,181	613	W	7,500	W	141	0	5.7
2011	*Meat Packing Plants*	53	3,924	138	101	35	W	W	0	2	0	16.0
2033	*Canned Fruits and Vegetables*	51	1,432	241	119	42	W	W	0	*	0	15.7
2037	*Frozen Fruits and Vegetables*	42	2,901	204	62	27	76	0	0	2	0	18.0
2046	*Wet Corn Milling*	173	5,662	169	10	67	9	3,556	6	5	0	20.4
2051	*Bread, Cake, and Related Products*	37	2,436	Q	131	26	89	0	0	*	0	21.8
2061	*Cane Sugar, Except Refining*	111	W	W	220	2	W	W	0	105	0	19.1
2061	*Cane Sugar Refining*	23	125	313	97	16	4	0	0	4	0	29.6
2063	*Beet Sugar*	64	425	270	W	18	W	1,790	W	*	0	3.5
2075	*Soybean Oil Mills*	57	1,845	147	W	30	W	682	0	3	0	1.4
2082	*Malt Beverages*	51	2,311	W	21	21	W	789	0	*	0	8.1
21	Tobacco Products	W	842	133	W	W	W	W	0	W	0	25.5
22	Textile Mill Products	310	32,614	2,680	1,274	113	999	1,821	0	14	0	13.1
23	Apparel and Other Textile Products	W	7,735	W	106	25	W	W	0	W	0	20.9
24	Lumber and Wood Products	491	19,836	389	4,314	47	W	W	0	341	0	9.3
2421	*Sawmills and Planing Mills, General*	201	6,556	W	1,206	11	W	0	0	160	0	14.3
2436	*Softwood Veneer and Plywood*	74	2,517	Q	251	3	168	0	0	61	0	15.3
2493	*Reconstituted Wood Products*	98	4,453	198	128	17	W	W	0	60	0	14.2
25	Furniture and Fixtures	69	6,590	60	154	23	211	115	0	18	0	13.4
2511	*Wood Furniture, Except Upholstered*	24	2,146	47	62	2	59	56	0	13	0	15.6
26	Paper and Allied Products	2,665	65,479	27,444	1,564	558	1,334	13,812	0	1,373	0	3.6
2611	*Pulp Mills*	W	2,190	3,583	178	21	W	328	0	W	0	13.5
2621	*Paper Mills*	1,297	34,419	14,942	746	264	476	8,783	0	612	0	5.5
2631	*Paperboard Mills*	954	13,512	7,914	314	194	119	4,552	0	556	0	2.9
27	Printing and Publishing	112	17,409	W	264	46	W	0	0	2	0	10.6
28	Chemicals and Allied Products	5,328	152,482	17,457	2,324	2,495	435,926	13,239	449	442	166	6.4
2812	*Alkalies and Chlorine*	135	13,424	W	53	52	W	W	0	16	0	9.1
2813	*Industrial Gases*	104	23,525	0	W	23	W	15	29	1	W	25.9
2816	*Inorganic Pigments*	51	2,393	159	W	21	W	W	W	11	0	10.1
2819	*Industrial Inorganic Chemicals, nec*	377	42,239	W	264	145	W	W	352	28	*	14.6
2821	*Plastics Materials and Resins*	642	16,408	542	153	234	89,084	875	0	26	21	9.1
2822	*Synthetic Rubber*	102	2,276	W	W	53	6,899	190	0	9	0	26.2
2823	*Cellulosic Manmade Fibers*	28	419	0	23	W	W	W	0	W	0	1.2
2824	*Organic Fibers, Noncellulosic*	116	7,093	1,435	88	39	W	W	0	W	W	8.3
2861	*Gum and Wood Chemicals*	28	211	*	W	4	W	164	W	19	0	7.4
2865	*Cyclic Crudes and Intermediates*	206	4,789	W	204	98	W	152	0	35	0	19.5
2869	*Industrial Organic Chemicals, nec*	2,369	18,786	795	319	1,037	282,371	W	W	250	142	9.8
2873	*Nitrogenous Fertilizers*	622	3,817	0	30	589	4	0	0	2	0	14.0
2874	*Phosphatic Fertilizers*	46	1,131	W	W	13	3	W	0	25	0	6.4
2895	*Carbon Black*	80	W	9,344	W	19	W	0	0	*	0	13.3

Source: Energy Information Administration, 1994 Manufacturing Energy Consumption Survey.

Calculating the Approximate Standard Error

RSE Column Factor Natural Gas)
= 0.6
RSE Row Factor (Chemicals and Allied Products)
= 6.4
Approximate RSE (Chemicals and Allied Products, Natural Gas)
= 6.4 · 0.6
= 3.8 percent
Approximate Standard Error (Chemicals and Allied Products, Natural Gas)
= (0.038) · (2,495 billion cubic feet) = 95 billion cubic feet.

Calculating the Confidence Range with Generalized RSEs

Steps to calculate the 95-percent confidence range (that range which includes the true value of the estimate with 95 percent confidence):

1. Multiply the standard error by 1.96;
2. Subtract the result of Step 1 from the given estimate to determine the lower bound of the range;
3. Add the result of Step 1 to the given estimate to determine the upper bound of the range.

Measuring Statistical Significance with Generalized RSEs

Steps to determine if the difference between any two estimates in this report are statistically significant:

1. Calculate the standard error of each estimate;
2. Square the standard error of each estimate;
3. Add the two values from Step 2;
4. Take the square root of the value in Step 3;
5. Multiply the value in Step 4 by 1.96;
6. If the value in Step 5 is less than the difference between the estimates, the difference between the estimates is statistically significant according to the generalized RSEs.

Derivation of Row and Column Factors

Row and column factors are derived by an analysis of variance procedure with the table of RSEs. Although analysis of variance is used to derive row and column effects from which row and column factors are computed, this generalized variance procedure can not be considered an analysis of variance because the primary concern here is to determine model fit rather than to analyze the effects of row and column variables on the RSEs. The two-way model is fit separately for each log transformed RSE table and is consistent for every table in this report. Because of this consistency over all tables, the model can be written in general format as

$$\log(RSE_{i,j}) = m + r_i + c_j + e_{i,j}, \quad (5)$$

where m is the grand mean of $\log(RSE_{i,j})$ of a "balanced" table composed of I non-zero rows and J non-zero columns, r_i is the effect of the i^{th} row, c_j is the effect of the j^{th} row, and $e_{i,j}$ is the error term. Model parameters are fit by the standard formulas for Ordinary Least Squares given by Cochran and Cox.[46] For a given table of log(RSE) estimates, point estimators of model parameters are given as

[46]William G. Cochran and Gertrude M. Cox, *Experimental Design* (2nd ed.),(New York: John Wiley & Sons, Inc. 1957).

$$\hat{m} = \frac{\sum_{i=1}^{I}\sum_{j=1}^{J}\log(RSE_{i,j})}{I \bullet J} = \overline{\log(RSE_{\bullet,\bullet})}$$

$$\hat{r}_i = \frac{\sum_{j=1}^{J}\log(RSE_{i,j})}{J} - \hat{m} = \overline{\log(RSE_{i,\bullet})} - \hat{m} \qquad (6)$$

$$\hat{c}_j = \frac{\sum_{i=1}^{I}\log(RSE_{i,j})}{I} - \hat{m} = \overline{\log(RSE_{\bullet,j})} - \hat{m}.$$

The row and column factors are then computed by back-transforming the estimated model parameters; that is, by taking the $\log^{-1}$ of the model effects. This transformation yields

$$R_i = \log^{-1}(\hat{m} + \hat{r}_i) = \log^{-1}\left(\overline{\log(RSE_{i,\bullet})}\right)$$

$$C_j = \log^{-1}(\hat{c}_j) = \log^{-1}\left(\overline{\log(RSE_{\bullet,j})} - \overline{\log(RSE_{\bullet,\bullet})}\right). \qquad (7)$$

For ease of presentation, the row factor includes the grand mean, m. Because of this factoring, the row factor for the i^{th} row can alternately be expressed as the geometric mean of i^{th} row:

$$R_i = \left(\prod_{j=1}^{J} RSE_{i,j}\right)^{\frac{1}{J}}. \qquad (8)$$

And, column factors, C_j, for a given table have a geometric mean equal to 1.0.

Since the MECS report presents a variety of energy-related estimates that are unique to certain industries, measures of the precision of population estimates are sometimes equal to zero or are withheld from publication. When an RSE table contains a zero or withheld RSE, the table of RSEs is considered for generalization purposes to be "unbalanced." When the condition of an "unbalanced" table arises, substitute RSE estimates are inserted for these missing elements of the RSE table. Substitution of missing RSEs elements is based on an iterative procedure developed by Cochran and Cox.[47] A detailed description of the automated procedure used to produce the row and column factors appearing in this report can be found in Gargiullo and Goldberg.[48]

Sampling Error of Proportions

The estimates in this report can be used to produce proportion statistics based on the ratio of various estimates reported in the tables. Proportions are not given in the "Detailed Statistics Tables" but can be used to clarify the analysis. A proportion is the statistic of the form

$$\hat{P} = \frac{\hat{Y}}{\hat{X}}, \qquad (9)$$

[47]Ibid.

[48]P.M. Gargiullo and M.L Goldberg, "A Modified Table Producing Language (TPL) for Producing Tables of Survey Statistics with Variances," Proceedings of the Bureau of the Census Fifth Annual Research Conference (1989).

where $\hat{Y}$ and $\hat{X}$ are survey-based estimates of aggregate parameters Y and X, respectively, and characteristic X "encompasses" characteristic Y ($Y \subset X$). That is, each population element (and, thus, each sample case) that contributes to Y also contributes to X, and the value of X for each element is greater than or equal to the value of Y.

From standard errors given by equation (**1**) that are then generalized by equation (**4**), the approximate RSEs of aggregate statistics can be used to produce an upper bound on the approximate errors for proportions. The straightforward additive error formula shown in equation (**1**) gives rise to a similarly straightforward upper-bound approximation to the error of an estimated proportion. The approximation can be expressed in terms of the generalized RSEs of the aggregate statistics entering into the proportion as

$$\hat{RSE}(\hat{P}) \leq \sqrt{[\hat{RSE}^2(\hat{Y}) \bullet (1 - 2 \bullet \hat{P})] + \hat{RSE}^2(\hat{X})}. \quad \textbf{(10)}$$

Justification for this formula is found in the MECS methodological report.

Sampling Error of Average Values

Estimates in this report can be used to produce ratio statistics when the sample case characteristic (y) is not found in every sample case (x) (i.e. Y is not a subset of X). The ratio is the statistic of the form

$$\hat{R} = \frac{\hat{Y}}{\hat{X}}, \quad \textbf{(11)}$$

where $\hat{Y}$ and $\hat{X}$ are survey-based estimates of average parameters Y and X, respectively, and characteristic X does not "encompass" characteristic Y. That is, each population element (and, thus, each sample case) that contributes to Y may not contribute to X.

From standard errors given by equation (**1**) that are then generalized by equation (**4**), the approximate RSEs of average statistics can be used to produce an upper bound on the approximate errors for proportions. An approximation of the RSE can be expressed by entering the average statistics in the ratio as[49]

$$RSE(\hat{R}) \doteq \sqrt{[RSE^2(\hat{Y}) + RSE^2(\hat{X}) - 2RELCOV(\hat{Y},\hat{X})]}, \quad \textbf{(12)}$$

where RELCOV(y, x) is assumed to be zero. Hence, the RSE(r) is overestimated.

Nonsampling Errors and Bias

Nonsampling errors that affect MECS sample units can be divided into four major categories:

- Operational errors, including editing, coding, and tabulation errors
- Errors of measurement, including a lack of precision by the respondent, failure of the respondent to understand instructions, etc.
- Errors of estimation, including the assumptions underlying the derived values
- Errors of nonobservation, including unit and item nonresponse and noncoverage.

These errors are collectively referred to as nonsampling errors because they are not related to the sampling process and, thus, would be equally likely to occur in a complete census or a sample survey.

[49]M. Hansen, W. Hurwitz, and W. Madlow, "Sample and Survey Methods and Theory, Volume I" (New York: John Wiley & Sons, Inc., 1953), p. 166.

Operational Errors

It is felt that operational errors are not a major concern for the estimates included in this report. The quality control procedures that were employed for check-in, editing, coding, and keying the returned questionnaires (Appendix B) are standard procedures that are in place at the Bureau of the Census and have withstood the test of time. Data tabulations were independently verified by comparing marginal totals in tables generated from files supplied to EIA with corresponding totals generated directly from microdata files maintained at the Census Bureau.

Errors of Measurement

Errors of measurement are a concern in any data collection activity. The survey results for the MECS were subjected to extensive computer editing procedures which were specifically designed to detect errors of measurement. Establishments that failed these tests for response reasonableness and consistency were contacted again by analysts familiar with manufacturing processes and energy use. Major errors, including omissions and misreporting by orders of magnitude, were corrected. No editing procedure is capable of identifying all measurement errors, however, and some small errors will remain. To the extent that these errors are due to random, rather than systematic, misjudgments, they are compensated in the aggregate totals presented in this report, and it is believed that there are few large systematic biases that result from them.

Errors of Estimation

Errors of estimation of energy consumption could have resulted from the assumptions that underlie the derived values (see Appendix B), and the estimates of the consumption of onsite- and offsite-produced fuels and raw material inputs could be biased as a result of such errors. For example, the derivation logic makes the assumption that energy produced onsite at a manufacturing establishment is considered first as a shipped product, second as a feedstock, and lastly as a fuel. If that logic does not hold, derived estimate values will be misapportioned. However, considering the mechanisms required to produce energy onsite, it is highly probable that this logic accurately represents manufacturers. These nonsampling errors, if present, are relevant only for tables in this report that are based on derived values. Estimates based upon reported values would not be subject to this potential source of bias.

Errors of Nonobservation

Finally, several potential sources of nonsampling error and bias result from errors of nonobservation. As described in Appendix B, the 1994 MECS represents, in terms of sampling coverage, the mail frame of the 1994 ASM or 98 percent of the manufacturing universe, which is consistent with the 1991 MECS.

Unit Nonresponse

Even though the MECS is a legislatively mandated survey and sampled establishments are given sufficient opportunity and time to respond, nonresponse occurs in the MECS and is accounted for in a nonresponse adjustment of sampling weights presented in Appendix B. Clearly, had these adjustments not been performed, the estimates produced from only the responding establishments would not have been representative of the target universe for the MECS. Such estimates would have been biased. Adjusting the sampling weights to reflect the target universe is an attempt to mitigate the potential effects of such a bias.

Adjustment factors are calculated for each of the 72 published strata to account for the variation of nonresponse between strata. Each stratum represents a relatively homogeneous subgrouping of establishments with respect to primary product output and level of fuel consumption.

Implicit in that procedure is the assumption that primary product output and level of fuel consumption are highly correlated with energy expenditure patterns, so that the establishments within a stratum would also be homogeneous with respect to the quantities, types, and shares of energy consumed as fuels and for nonfuel purposes. Also, the weight adjustment method assumes that the relationship between survey variables of interest and the control variable used for

constructing the adjusted sample weight is the same for the population covered by MECS respondents within an adjustment stratum as it is for the rest of the population within that stratum.

To the extent that the nonresponding establishments within the adjustment stratum share the energy expenditure patterns of the responding establishments within the strata, the resulting adjustments to the MECS estimates will tend to be minimally biased. If, on the other hand, the energy expenditure patterns of the responding and nonresponding establishments differ substantially, the resulting adjustments are potentially biased, and the overall estimates may not accurately represent the originally targeted MECS universe.

Item Nonresponse

Item nonresponse is the type of nonresponse that occurs when an item (or several items) is missing in an otherwise completed questionnaire. In 1994, MECS expanded its collection of establishments' characteristics. MECS now collects economic information, such as floorspace, motor purchase evaluations, reasons for fuel switching, energy management activities, and energy efficient technologies. Although a Response Analysis Survey of 1991 respondents indicated that a record-keeping system tracked these items, some establishments did not have a record-keeping system which would have enabled them to respond to these types of questions. To the extent that information systems excluded economic items, the MECS incurred item nonresponse.

Some surveys impute values for item nonresponse. The MECS did not impute for most of these missing items. The complexities and inherent heterogeneity of manufacturing establishments prevent the use of imputation techniques for most of these missing items. However, budget restrictions and timeliness issues halted respondent recontacts before item nonresponse could be eliminated. Hence, tables in this report have nonresponse columns or rows to reveal the extent of item nonresponse; for example, the floorspace data in Table A7.

MECS has a full reporting of energy consumption from all responding establishments. However, economic variables (such as value of shipments and value added) have historically been obtained from the Annual Survey of Manufactures (ASM). The change in sampling frames from the ASM to the CM had an indirect result on item nonresponse; that is, some establishments in the MECS sample did not have economic data (value of shipments and value added) because they were not included in the 1994 ASM sample. One approach considered by EIA was to query these establishments on their shipments. Unfortunately, duplication issues with the ASM precluded the MECS from querying establishments on their shipments and value added. Hence, these establishments did not have the ability to report their economic data.

Unlike the establishment characteristics, like floorspace, value of shipments and value-added estimates were imputed for all MECS establishments that were not in the sample. Of the 19,292 MECS sample respondents, 13,011 cases have ASM-reported value of shipments data and ASM-reported value-added data. Of the remaining cases, we only have the total number of employees and payroll from the Standard Statistical Establishment List (SSEL). Using aggregate payroll data, by industry (at the four-digit SIC level), value of shipments and value added were imputed by forward indexing. Using value added as an example, this imputation technique is expressed as

$$VA_{imp} = \left(\frac{SW_{94}}{SW_{92}}\right) \cdot (VA_{92}) \ , \qquad (13)$$

where SW_{94} is payroll from the 1994 SSEL and SW_{92} and VA_{92} are payroll and value added from the 1992 Census of Manufactures (CM). Value of shipments was imputed analogously.

The imputation model was evaluated by testing how well it predicted known 1994 ASM value-added data. Matching was done for SIC industries 2000 through 3999. If an establishment was indicated as out-of-business, the observation was deleted. If the ratio SW_{94}/SW_{92} was less than 1/8 or more than 8, the data were considered either as outliers or as recording errors. Such observations (696 out of 52,227) were removed prior to analysis.

A paired comparison t-test was done for the percent difference between VA_{imp} and actual VA_{94} to determine if the mean percent difference was statistically significant from zero. At a 95-percent confidence level, the null hypotheses (the mean

percent difference between VA_{imp} and actual VA_{94} is zero) could not be rejected. Hence, there was no difference statistically between Va_{imp} and VA_{94}. A t-test using value of shipments yielded the same conclusion.

Table C2 provides the counts, percents, and weighted percents for the imputed estimates of value of shipments and value added by industry.

More detailed information on sources of nonsampling error in the MECS can be found in the methodological report.

Table C2. Number of Establishments and Weighted and Unweighted Percentages of the Imputed Value of Shipments and Value Added

SIC Code	Industry Groups and Industry	Value of Shipments			Value Added		
		Number of Establishments	Percent	Weighted Percent	Number of Establishments	Percent	Weighted Percent
2011	Meat Packing Plants	10	1.2	4.2	10	1.1	4.6
2033	Canned Fruits and Vegetables	47	10.1	19.2	47	9.5	17.7
2037	Frozen Fruits and Vegetables	18	5.2	21.3	18	3.0	17.7
2046	Wet Corn Milling	12	3.6	3.6	12	3.2	3.2
2051	Bread, Cake, and Related Products	24	2.3	5.7	24	2.0	5.3
2061	Cane Sugar, Except Refining	26	36.7	36.7	26	35.1	35.1
2062	Cane Sugar Refining	4	6.8	6.8	4	7.0	7.0
2063	Beet Sugar	4	W	W	4	W	W
2075	Soybean Oil Mills	10	2.4	2.4	10	3.0	3.0
20	Balance of Food and Kindred Products	322	6.1	17.4	322	3.9	13.2
21	Tobacco Products	7	1.3	1.5	7	1.2	1.4
22	Textile Mill Products	139	6.3	14.5	139	6.7	18.0
23	Apparel and Other Textile Products	247	7.9	17.2	247	8.7	21.9
2421	Sawmills and Planing Mills, General	177	19.0	38.3	177	20.9	48.1
2436	Softwood Veneer and Plywood	5	2.8	3.9	5	2.8	4.0
2493	Reconstituted Wood Products	13	5.9	13.4	13	4.5	11.0
24	Balance of Lumber and Wood Products	313	14.8	42.5	313	17.2	49.7
2511	Wood Furniture, Except Upholstered	38	10.3	32.7	38	8.9	27.1
25	Furniture and Fixtures	131	9.3	35.2	131	9.0	37.7
2611	Pulp Mills	9	6.5	6.5	9	5.6	5.6
2621	Paper Mills	61	4.2	4.2	61	4.2	4.2
2631	Paperboard Mills	64	6.0	6.0	64	7.3	7.3
26	Balance of Paper and Allied Products	240	10.5	24.6	240	10.0	23.9
27	Printing and Publishing	612	9.9	35.2	612	8.7	32.9
2812	Alkalies and Chlorine	18	24.8	24.8	18	33.2	33.2
2813	Industrial Gases	24	9.4	11.8	24	8.8	10.8
2816	Inorganic Pigments	33	12.0	12.0	33	11.3	11.3
2819	Industrial Inorganic Chemicals, nec.	42	6.6	13.6	42	3.6	9.7
2821	Plastics Materials and Resins	22	4.8	5.2	22	3.8	4.4
2822	Synthetic Rubber	15	6.6	6.6	15	6.1	6.1
2823	Cellulosic Manmade Fibers	2	W	W	2	W	W
2824	Organic Fibers, Noncellulosic	16	3.3	3.3	16	2.8	2.8
2861	Gum and Wood Chemicals	19	12.9	12.9	19	12.8	12.8
2865	Cyclic Crudes and Intermediates	17	7.9	10.2	17	9.2	10.8
2869	Industrial Organic Chemicals, nec.	46	6.1	8.7	46	6.9	9.9
2873	Nitrogenous Fertilizers	54	19.9	19.9	54	17.2	17.2
2874	Phosphatic Fertilizers	27	17.5	17.5	27	3.5	3.5
287	Balance of Agricultural Chemicals	9	1.9	19.4	9	1.0	7.6
2895	Carbon Black	7	W	W	7	W	W
28	Balance of Chemicals and Allied Products	114	2.1	11.8	114	1.6	9.5
2911	Petroleum Refining	46	3.0	3.0	46	3.9	3.9
29	Balance of Petroleum and Coal Products	158	22.1	29.3	159	24.1	34.1
3011	Tires and Inner Tubes	1	W	W	1	W	W
308	Miscellaneous Plastics Products, nec.	353	8.8	23.8	353	8.5	24.0
30	Balance of Rubber and Misc. Plastics Products	135	15.0	39.6	135	13.8	37.4
31	Leather and Leather Products	48	9.1	29.9	48	9.8	31.5
3211	Flat Glass	11	1.9	1.9	11	2.3	2.3
3221	Glass Containers	2	W	W	2	W	W
3229	Pressed and Blown Glass, nec.	4	0.9	3.3	4	1.0	3.6
3231	Glass Products Made from Purchased Glass	28	5.4	15.0	28	4.7	5.3
3241	Cement, Hydraulic	23	16.3	17.6	23	14.5	15.7
3274	Lime	57	77.1	77.1	57	77.4	77.4
3296	Mineral Wool	2	W	W	2	W	W
32	Balance of Stone, Clay, and Glass Products	384	19.4	44.8	384	18.7	46.6
3312	Blast Furnaces and Steel Mills	59	2.7	2.7	59	2.0	2.0
3313	Electrometallurgical Products	17	61.6	61.6	17	73.5	73.5
331	Balance of Blast Furnace and Basic Steel Products	49	12.5	35.0	49	14.3	42.3
3321	Gray and Ductile Iron Foundries	34	7.0	17.5	34	7.1	18.3

See footnotes at end of table.

Table C2. Number of Establishments and Weighted and Unweighted Percentages of the Imputed Value of Shipments and Value Added (Continued)

SIC Code	Industry Groups and Industry	Value of Shipments			Value Added		
		Number of Establishments	Percent	Weighted Percent	Number of Establishments	Percent	Weighted Percent
3331	Primary Copper	3	W	W	3	W	W
3334	Primary Aluminum	3	W	W	3	W	W
3339	Primary Nonferrous Metals, nec	38	16.2	16.7	38	13.9	13.3
3353	Aluminum Sheet, Plate, and Foil	12	2.5	2.5	12	2.4	2.4
33	Primary Metal Industries	218	11.0	23.5	218	10.7	25.7
34	Fabricated Metal Products	529	8.4	30.7	529	8.9	32.8
357	Computer and Office Equipment	9	0.2	5.2	9	0.2	7.1
35	Balance of Industrial Machinery and Equipment	545	5.0	27.2	545	5.6	28.9
36	Electronic and Other Electric Equipment	141	1.5	14.9	141	1.5	15.5
3711	Motor Vehicles and Car Bodies	2	W	W	2	W	W
3714	Motor Vehicle Parts and Accessories	36	1.0	8.8	36	1.2	10.1
37	Balance of Transportation Equipment	76	1.1	11.2	76	1.2	12.9
3841	Surgical and Medical Instruments	20	1.7	12.3	20	1.4	10.6
38	Balance of Instruments and Related Products	102	2.4	16.2	102	2.1	16.3
39	Miscellaneous Manufacturing Industries	141	10.2	44.2	141	9.5	43.8
	Total	6,284	4.8	17.8	6,284	4.7	19.5

W = Withheld to avoid disclosing data for individual establishments.
Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."

Comparability of MECS Estimates with Other Series

The Energy Information Administration (EIA) collects data from two distinct sources that, in their entirety, provide a comprehensive picture of energy production, marketing, and consumption in the United States.[50] One set of surveys is directed to the suppliers and marketers of specific fuels (including electricity). The second group of surveys collects comprehensive energy consumption and related data directly from end-use consumers. The MECS is a member of the latter group.

Because there is a seeming correspondence between energy supplied and energy consumed, it is tempting to compare or merge their results. However, there are important differences between the supplier and end-user surveys that need to be taken into account in doing such comparisons or other analyses.

An Overview of EIA Surveys

The End-User Surveys

The overall purpose of the end-user surveys is to provide comprehensive baseline data on energy consumption and related characteristics for major sectors of the U.S. economy. Accordingly, the end-user surveys are conducted for the manufacturing sector, commercial buildings, residential households, and residential transportation. These surveys collect data directly from samples of the energy-consuming units comprising those sectors. The results of these end-user surveys are available in a variety of EIA publications.

[50]Descriptions of all EIA data collection activities are included in Energy Information Administration, *Directory of Energy Data Collection Forms*, DOE/EIA-0449(90) (Washington, DC, January 1991).

The Supplier Surveys

The EIA conducts numerous supplier surveys. The overall purpose of these surveys is to measure the quantity of a specific fuel produced and/or supplied to the market, along with other information related to the fuel's production and supply. The results of these surveys are published in several EIA reports.[51]

Combined Results of the Supplier Surveys

In addition to supporting fuel-specific publications of EIA, the results of the supplier surveys are combined to produce estimates of total energy consumption by consuming sector. The consuming sectors consist of the commercial, residential, industrial, transportation, and electric utilities sectors. The resulting combined estimates are published by EIA in the *Monthly Energy Review* (MER), the *State Energy Data Report* (SEDR), and the *Annual Energy Review* (AER).

Defining the Industrial Sector

In general, the "industrial sector" is defined as consisting of manufacturing, mining, construction, agriculture, fisheries, and forestry. The approximate SIC equivalent of the industrial sector includes major group codes 01 through 39.[52] There are a few definitional irregularities, however, that preclude a perfect mapping of the supplier surveys to that range of SIC codes. As pointed out in the MER,

> . . . although end-use allocations are made according to [the sector definitions] as closely as possible, some data are collected by using different classifications. For example, data on agricultural use of natural gas are collected and reported in the commercial sector rather than the industrial sector. Since agricultural use of natural gas cannot be identified separately, it is included in the commercial sector....[rather than the industrial sector.][53]

Comparing the MECS and Industrial Sector Estimates

The MECS produces four separate estimates of manufacturing energy consumption, which are: (1) Total First Use of Energy for All Purposes (Table A1), (2) Total First Use of Energy for Nonfuel Purposes (Table A3), (3) Total Inputs of Energy for Heat, Power, and Electricity Generation (Table A4), and (4) Total Consumption of Offsite-Produced Energy for Heat, Power, and Electricity Generation (Table A5). The differences among those estimates are discussed in detail elsewhere in Appendix B of this report.

The combined estimates for the industrial sector published in SEDR are conceptually similar to the MECS estimates of Total First Use of Energy For All Purposes, because both series measure energy consumption as a fuel and as a raw material or feedstock.

A Final Observation

Many of the substantial differences between the MECS estimates of first use of energy and the combined estimates resulting from the supplier surveys can be reconciled by carefully reviewing the coverage and definitions of the data series involved. It should be emphasized that the differences are not an indication of the relative strengths or weaknesses of either series. Rather, the differences in the estimates simply reflect the differences in the *intents* of the end-user surveys and the supplier surveys. The overall purpose of the end-user surveys is to provide baseline energy consumption and related characteristics data for various groups of end users (manufacturers, residential housing and transportation, and commercial buildings). The overall purpose of the supplier surveys, on the other hand, is to provide baseline data on the production and supply of various fuels. To reiterate, data users should be extremely wary of attempting to compare or combine the results of the end-user and supplier surveys without careful attention to the origins and purposes of the different estimates. The details of a study comparing the 1991 MECS and Industrial Sector estimates can be

[51]For a complete list of publications, see Energy Information Administration, *EIA Publications Directory 1996*, DOE/EIA-0149(96) (Washington, DC, May 1997).

[52]See Office of Management and Budget, *Standard Industrial Classification Manual 1987* (Washington, DC, 1987).

[53]Energy Information Administration, *Monthly Energy Review, September 1993*, p. 40.

found in Appendix D in *Manufacturing Energy Consumption Survey, 1991 (DOE/EIA-0512(91))*. The values are somewhat different in 1994 than in 1991, but the major relationships and their explanations remain appropriate.

Appendix D

Manufacturing Energy Consumption Survey Forms

Appendix D

1994 Manufacturing Energy Consumption Survey Form EIA-846A

OMB No. 1905-0169: Approval Expires 04/30/98

Form **EIA-846A**
(4-6-95)

U.S. Department of Commerce
Bureau of the Census
Acting as Collecting and
Compiling Agent For

UNITED STATES DEPARTMENT
OF ENERGY
ENERGY INFORMATION
ADMINISTRATION

1994
MANUFACTURING
ENERGY
CONSUMPTION
SURVEY

Public reporting burden for this collection of information is estimated to average 9 hours per response, including the time of reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Energy Information Administration, Office of Statistical Standards, EI-73, 1707 H Street, NW, Washington, DC 20585; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

In correspondence pertaining to this report, please refer to this Census File Number (CFN).

Please correct errors in name, address, and ZIP Code. ENTER street and number if not shown.

PLEASE COMPLETE THIS FORM AND RETURN TO
BUREAU OF THE CENSUS
1201 East 10th Street
Jeffersonville, IN 47132-0001

DUE DATE:

If you cannot file by the due date, a time extension request should be sent to the above address. Please include your 11-digit Census File Number (CFN).

NOTE

Please read the enclosed instructions before filling out this form. Complete each item. If you have any questions, call 1-800-866-6327.

The Manufacturing Energy Consumption Survey – The Manufacturing Energy Consumption Survey (MECS) was designed, and is being sponsored, by the Energy Information Administration (EIA) of the U.S. Department of Energy (DOE). The survey is administered and compiled by the U.S. Bureau of the Census for the EIA. The previous MECS was conducted covering the year 1991.

Mandatory Requirement – This survey is **mandatory** under the Federal Energy Administration Act of 1974, Pub. L. No. 93-275, and under Title 3, Subtitle B, of the Omnibus Budget Reconciliation Act of 1986, Pub. L. No. 99-509, as amended by Title 1, Subtitle G, of the Energy Policy Act of 1992, Pub. L. No. 102-486. Failure to respond may result in criminal fines, civil penalties, and other sanctions as provided by law. Response is required by law from establishments included in the MECS sample and receiving the MECS form.

Confidentiality of Data – Under Section 9 of Title 13, U.S. Code, your report to the Census Bureau is **confidential**. It may be seen only by sworn Census Bureau employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Purpose of This Survey – The MECS will collect data on energy consumption and usage patterns for the manufacturing sector of the U.S. economy. In addition, it will measure the short-term (within 30 days) capability of your establishment to substitute fuels in place of those actually consumed in 1994. The information obtained from the MECS forms will be used to publish aggregate statistics on the following: consumption of energy for fuel and nonfuel uses, energy characteristics of buildings in the manufacturing sector, energy consumption by end use, technologies currently in use by U.S. manufacturers, energy prices, electricity generation onsite, fuel-switching capabilities, and participation in energy-management activities. This information will be used by the DOE to implement policy plans effectively as well as to assist utilities in more accurate demand forecasting and resource planning.

Form EIA-846A – This form is addressed to establishments operating primarily in the manufacturing sector in industries as defined by the 1987 Standard Industrial Classification (SIC) Manual. Industries sampled for this form are in SIC 20 through 39, except for SIC 24, 26, 28, 29, 3312, 3321, 3331, and 3339. Establishments in SIC 22 (apparel/jobbers) and SIC 27 (printing/publishing) are manufacturers by definition and should complete this form. **Government-owned establishments that are privately operated are NOT exempt from completing this survey.**

Due Date – The questionnaire should be returned no later than the due date specified above. If you need additional time, please call our processing office on 1–800–528–3049. Please use the enclosed return envelope. If the envelope has been misplaced, return the completed questionnaire to us at the above address.

1994 Manufacturing Energy Consumption Survey
Form EIA-846A

A. General Instructions

1. No entries are required in the shaded areas. All shaded areas are to be left blank.

2. Use the indicated units specified on the questionnaire for reporting all quantities. For example:

Electricity – Thousands of kilowatthours (1,000 kWh)
Steam – Millions of British thermal units (Million Btu)
Industrial hot water – Millions of Btu (Million Btu)
Coal – Short Tons
Natural gas – Thousands of cubic feet (1,000 cu. ft.)
Hydrogen – Millions of Btu (Million Btu)
Diesel fuel and distillate fuel oil – Barrels

If you need conversion factors in order to report in the specified units, refer to the detailed instructions for Sections I and II.

3. Do not consolidate establishments. The reporting boundaries for your establishment should correspond to those used in the Annual Survey of Manufactures and/or the Census of Manufactures.

4. If you do not maintain book records for particular items, please use carefully prepared estimates.

5. Please refer to the accompanying instruction guide as you answer the questions.

B. Operational Status

IF FORM MA-1000 (ANNUAL SURVEY OF MANUFACTURES) WAS COMPLETED FOR THIS ESTABLISHMENT IN 1994, SKIP THIS ITEM AND GO TO SECTION I – NONCOMBUSTIBLE ENERGY SOURCES. Otherwise, please **complete this item** fully to avoid unnecessary correspondence. Mark the box (1–5) that is applicable to the operation of this establishment at the end of 1994. If you check box 3, 4, or 5, please fill in the month, day, and year (numbers only, please) that the action became effective. If box 4 or 5 is checked, also supply the name and address (or location) of the new or former owner or operating company.

If the ownership of this establishment changed in 1994, please make certain that the date of the change in ownership is recorded in this item.

1. **If you sold the establishment during the year,** complete all sections of the report form for activities that occurred in 1994 **prior** to the sale.

2. **If you bought the establishment during the year,** complete all sections of the report form for activities that occurred in 1994 **after** the sale.

Mark (X) only ONE box which best describes this establishment at the end of 1994. If this establishment was not in operation for the full year during 1994, please complete this form for the part of the year that you were in operation.

		Date (Numbers Only)		
		Month	Day	Year
0001	1 ☐ In operation			
	2 ☐ Temporarily or seasonally inactive			
	3 ☐ Ceased operation *(Provide date at right)*			
	4 ☐ Sold or leased TO another operator *(Provide date at right AND enter name, etc., below)*			
	5 ☐ Acquired or leased FROM another operator *(Provide date at right AND enter name, etc., below)*			

Name of new/former owner or operator	Employer Identification (EI) Number (9 digits)		
Number and street	City	State	ZIP Code

CONTINUE WITH SECTION I ON PAGE 3

1994 Manufacturing Energy Consumption Survey
Form EIA-846A

Section I – NONCOMBUSTIBLE ENERGY SOURCES

Item Description (1)	IF ZERO, PLEASE ENTER ZERO (0) IN EACH BOX		
	Electricity 10 (2)	Steam 11 (3)	Industrial Hot Water 12 (4)
1a. During 1994, what amount of each energy source was **purchased from utilities** by this establishment and delivered to this establishment site? *(DO NOT include purchases by a central purchasing agent, quantities delivered from other establishments of your company, or quantities for which payment was made in-kind.)* 01	Kilowatthours: Mil / Thou / kWh	Million Btu	Million Btu
1b. What was the total expenditure, including all applicable taxes, for the purchased energy source(s) reported on line 1a? 02	Dollars: Mil / Thou / Dol	Dollars: Mil / Thou / Dol	Dollars: Mil / Thou / Dol
2a. During 1994, what amount of electricity and steam was **purchased from nonutility suppliers** by this establishment and delivered to this establishment site? 03	Kilowatthours: Mil / Thou / kWh	Million Btu	
2b. What was the total expenditure, including all applicable taxes, for the purchased energy source(s) reported on line 2a? 04	Dollars: Mil / Thou / Dol	Dollars: Mil / Thou / Dol	
3. During 1994, what amount of each energy source was **transferred** from outside establishments and delivered to this establishment site? *(DO NOT include the purchases reported in lines 1a and 2a. DO include quantities received from a central purchasing agent, quantities delivered from other establishments of your company, and quantities for which payment was made in-kind.)* 05	Kilowatthours: Mil / Thou / kWh	Million Btu	Million Btu
4. **TOTAL QUANTITIES OF ELECTRICITY RECEIVED ONSITE** *(Sum of lines 1a, 2a, and 3.)* **NOTE** – Copy this quantity for electricity to Section III – FUEL SWITCHING, part A, line 1a, column (2) on page 6. 06			
5. During 1994, how much electricity was generated on this establishment site by cogeneration? *(Include ALL cogeneration facilities at this establishment site.)* 07			
6. During 1994, how much of each energy source was generated onsite from each of the following:		Million Btu	Million Btu
a. Solar power 081			
b. Wind power 082			
c. Hydropower 083			
d. Geothermal power 084			
7. During 1994, how much electricity was generated onsite by processes other than those covered on lines 5, 6a, 6b, 6c, and 6d? 09			
8. **TOTAL ONSITE GENERATION OF ELECTRICITY** *(Sum of lines 5, 6a, 6b, 6c, 6d, and 7.)* 10			
9. During 1994, how much electricity was sold or transferred to utilities? 11			
10. During 1994, how much of each energy source was sold or transferred to any establishments other than utilities? 12		Million Btu	Million Btu
11. **TOTAL ELECTRICITY SALES AND TRANSFERS OFFSITE** *(Line 9 plus line 10.)* 13			
12. **TOTAL ONSITE CONSUMPTION OF ELECTRICITY.** *(Line 4 plus line 8 minus line 11.)* **NOTE** – Copy this quantity for electricity consumption to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, line 1, column (2) on page 9. 14			

FORM EIA-846A (4-6-95)

Page 3

1994 Manufacturing Energy Consumption Survey
Form EIA-846A

Section II – COMBUSTIBLE ENERGY SOURCES

Energy Sources	Census Use Only	Units used for reporting quantities	Energy sources **received** onsite in 1994: Quantity purchased by and delivered to this establishment	Total expenditures, including taxes and delivery charges, of the quantity in column (4) (5) Mil	Thou	Dol	Total quantity of transfers in and central purchases
(1)	(2)	(3)	01 (4)	02			03 (6)
A. SOLIDS							
1. Anthracite	40	Short Tons					
2. Bituminous and subbituminous coal	41	Short Tons					
3. Lignite	42	Short Tons					
4. **Total coal** *(Sum of lines A1, A2, and A3)*	46	Short Tons					
5. Breeze	44	Short Tons					
6. Coal coke	43	Short Tons					
7. Petroleum coke	70	Barrels					
8. Agricultural waste (e.g., bagasse, rice hulls, nut shells, orchard prunings)	90	Million Btu					
9. Wood harvested directly from trees (e.g., roundwood, wood chips, tree bark)	83	Million Btu					
10. Wood residues and byproducts from mill processing (e.g., sawdust, shavings, slabs, bark)	84	Million Btu					
11. Wood/paper-related refuse (e.g., scrap, wastepaper, wood pallets, packing materials)	72	Million Btu					
12. Other solids *(Specify solid. Specify units, if **not** million Btu)*							
9198	91	Million Btu					
B. GASES (exclude oxygen, nitrogen, and inert gases)							*See Pg. 10, Part B.*
1. **Total natural gas** *(Include well production onsite in column (7))*	30	1,000 cu. ft.					
In the following parts 1a–1e, please classify natural gas purchases which are reported in line 1.							
UTILITY/LDC							
1a. Natural gas purchased directly from your utilities/local distribution companies (LDC) at a **firm** service rate	48	1,000 cu. ft.					
1b. Natural gas purchased directly from LDC at an **interruptible** service rate	49	1,000 cu. ft.					
1c. Natural gas purchased directly from LDC at **other** service rates *(Specify type of service rate)*							
5098	50	1,000 cu. ft.					
Did this establishment purchase natural gas in 1994 from sources other than utilities/LDC?							
50981 1 ☐ Yes – *Go to Line 1d.*							
2 ☐ No – *Skip to line 2, Acetylene, on this page.*							
NONUTILITY/NON-LDC							
1d. Natural gas purchased from non-LDC sources (e.g., producers, brokers, marketers, and other non-LDC sources including fees for transportation and storage)	51	1,000 cu. ft.					
1e. Of the expenditures given in line 1d, please provide the following: *(Please note that the sum of lines e(1), e(2), and e(3) should equal line 1d.)*							
(1) Cost of supplies *(Include brokers' fees, suppliers' fees)*	52						
(2) Cost of transportation – ***Please mark (X) all the service rates that apply.***							
53021 1 ☐ Firm (e.g., no-notice, bundled firm)							
53022 1 ☐ Interruptible							
53023 1 ☐ Don't know							
53024 1 ☐ Other/Released capacity *(Specify type of service rate)*							
5398	53						
(3) Other costs (e.g., storage) *(Specify)*							
5498	54						
2. Acetylene	64	Cu. Ft.					
3. Hydrogen	63	Million Btu					
4. Waste and byproduct gases (e.g., refinery gas, vent gas, plant gas, still gas)	62	Million Btu					
5. Other gases *(Specify gas. Specify units, if **not** million Btu)*							
9398	93	Million Btu					

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Section II – COMBUSTIBLE ENERGY SOURCES – Continued

Energy sources **produced** onsite in 1994		Energy sources **consumed** onsite in 1994			
Quantity produced onsite	**Does the entry in column (7) represent the product or byproduct of another energy source consumed onsite?**	**Quantity consumed as a fuel**	**Quantity consumed for all nonfuel purposes**	**Total design storage capacity located onsite as of 12/31/94**	**Energy Sources**
04 (7)	05 (8)	06 (9)	07 (10)	09 (11)	(12)
					A. SOLIDS Anthracite
					Bituminous and subbituminous coal
					Lignite
		Copy to Pg. 8, line 1a & Pg. 9, line 1			**Total coal** *(Sum of lines A1, A2, and A3)*
	1 ☐ Yes 2 ☐ No				Breeze
	1 ☐ Yes 2 ☐ No				Coal coke
	1 ☐ Yes 2 ☐ No				Petroleum coke
					Agricultural waste
					Wood harvested from trees
					Wood residues and byproducts from mills
					Wood/paper-related refuse
	1 ☐ Yes 2 ☐ No				Other solids
		Copy to Pg. 7, line 1a & Pg. 9, line 1			**B. GASES** **Total natural gas**
					Natural gas purchased from *utilities/LDC at a firm rate*
					Natural gas purchased from *LDC at an interruptible rate*
					Natural gas purchased *from LDC at other rates*
					Natural gas purchased from non-LDC sources
					Cost of supplies
					Cost of transportation
					Other costs
					Acetylene
	1 ☐ Yes 2 ☐ No				Hydrogen
	1 ☐ Yes 2 ☐ No				Waste and byproduct gases
	1 ☐ Yes 2 ☐ No				Other gases

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Section II – COMBUSTIBLE ENERGY SOURCES – Continued

Energy Sources	Census Use Only	Units used for reporting quantities	Energy sources **received** onsite in 1994: Quantity purchased by and delivered to this establishment	Total expenditures, including taxes and delivery charges, of the quantity in column (4) (5) Mil	Thou	Dol	Total quantity of transfers in and central purchases
(1)	(2)	(3)	01 (4)				03 (6)
C. LIQUIDS *(42 gallons = 1 barrel)*							
1. Diesel fuel, excluding highway usage	28	Barrels					
2. Distillate fuel oil (numbers 1, 2, and 4 fuel oils – ***exclude** diesel fuel reported on line C1 above.)*	29	Barrels					
3. **Total diesel fuel and distillate fuel oil** *(Sum of lines C1 and C2)*	22	Barrels					
4. LPG (liquid petroleum gas) (e.g., butane, ethane, propane, butylene, ethylene, propylene, and mixtures)	24	Gallons					
5. Kerosene	27	Barrels					
6. Motor gasoline, excluding highway usage	23	Gallons					
7. Residual fuel oil (numbers 5, 6, Navy Special, and Bunker C)	21	Barrels					
8. Waste oils and tars	71	Million Btu					
9. Other liquids *(Specify liquid. Specify units, if not million Btu)* 9598	95	Million Btu					

Section III – FUEL SWITCHING

A. BASIC CAPABILITY

The purpose of this part is to determine this establishment's potential to switch from one type of fuel to another, regardless of whether or not any fuel switching was actually done.

Item Description	Total Electricity Received 10 (2)	Total Coal Excluding Coal Coke and Breeze 46 (3)
(1)	*Copy from Section I, line 4, column (2)*	*Copy from Section II, part A, line 4, column (9)*
	1,000 Kilowatthours	Short Tons
1a. Quantity Consumed – Copy data into line 1a as instructed in the column headings. 50		
1b. Does line 1a contain any nonzero entries? 10501 1 ☐ Yes – *Answer lines 2 and 3 for that column.* 2 ☐ No – *Skip to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, on page 9.*		
Do not consider differences in energy prices when estimating amounts.	1,000 Kilowatthours	Short Tons
2. Quantity Nonswitchable – Enter the amount of the quantity in line 1a that could NOT have been replaced within 30 days by another energy source in 1994. 51		
3a. Quantity Switchable – Subtract line 2 from line 1a and enter the results. This represents the total quantity of energy consumption that COULD HAVE BEEN replaced within 30 days by one or more alternative energy sources in 1994. 52	1,000 Kilowatthours	Short Tons
3b. Does line 3a contain any nonzero entries? 10521 1 ☐ Yes – *Answer lines 4 through 11, as appropriate, for that column.* 2 ☐ No – *Skip to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, on page 9.*		
PLEASE COMPLETE ONE COLUMN BEFORE STARTING ANOTHER		
		Short Tons
4. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by electricity? 53		
	1,000 Kilowatthours	
5. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by coal, excluding coal coke and breeze? 67		
	1,000 Kilowatthours	
6. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by total coal coke and breeze, excluding coal included in line 5 above? 69		
	1,000 Kilowatthours	Short Tons
7. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by natural gas from any supplier(s)? 57		
	1,000 Kilowatthours	Short Tons
8. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by total diesel fuel and distillate fuel oil? 59		
	1,000 Kilowatthours	Short Tons
9. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by LPG? 61		
	1,000 Kilowatthours	Short Tons
10. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by residual fuel oil? 63		
	1,000 Kilowatthours	Short Tons
11. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by any other energy source? *(Specify the energy source)* 1099 65		

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Section II – COMBUSTIBLE ENERGY SOURCES – Continued

Energy sources **produced** onsite in 1994		Energy sources **consumed** onsite in 1994		**Total design storage capacity located onsite as of 12/31/94**	**Energy Sources**
Quantity produced onsite	**Does the entry in column (7) represent the product or byproduct of another energy source consumed onsite?**	**Quantity consumed as a fuel**	**Quantity consumed for all nonfuel purposes**		
04 (7)	05 (8)	06 (9)	07 (10)	09 (11)	(12)
				Barrels	**C. LIQUIDS** Diesel fuel
				Barrels	Distillate fuel oil
		Copy to line 1a below & on pg. 9			**Total diesel fuel and distillate fuel oil** *(Sum of lines C1 and C2)*
		Copy to line 1a below & on pg. 9			LPG
	1 ☐ Yes 2 ☐ No				Kerosene
				Gallons	Motor gasoline
		Copy to line 1a below & on pg. 9		Barrels	Residual fuel oil
	1 ☐ Yes 2 ☐ No				Waste oils and tars
					Other liquids

Section III – FUEL SWITCHING – Continued

Total Natural Gas	**Total Diesel Fuel and Distillate Fuel Oil**	**LPG**	**Residual Fuel Oil**
30 (4)	22 (5)	24 (6)	21 (7)
Copy from Section II, part B, line 1, column (9)	*Copy from Section II, part C, line 3, column (9)*	*Copy from Section II, part C, line 4, column (9)*	*Copy from Section II, part C, line 7, column (9)*
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
PLEASE COMPLETE ONE COLUMN BEFORE STARTING ANOTHER			
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
	Barrels	Gallons	*Copy to line 1a on page 8* Barrels
1,000 cu. ft.		Gallons	Barrels
1,000 cu. ft.	Barrels		Barrels
Copy to line 1a on page 8 1,000 cu. ft.	Barrels	Gallons	
1,000 cu. ft.	Barrels	Gallons	Barrels

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Section III – FUEL SWITCHING – Continued

B. SWITCHING BETWEEN NATURAL GAS AND RESIDUAL FUEL OIL

The purpose of this part is to determine, for this establishment, if any actual switching took place between two specific fuels, namely natural gas and residual fuel oil; if so, the primary reasons for the switching and at what price difference would switching be a viable option.

Item Description (1)	Total Natural Gas 30 (2)	Residual Fuel Oil 21 (3)
	Copy from Section III, part A, line 10, column (4) 1,000 cu. ft.	*Copy from Section III, part A, line 7, column (7)* Barrels
1a. Replaceable amount – Copy data into line 1a as instructed in the column headings. 90		
1b. Does line 1a contain any nonzero entries?		
1501 1 ☐ Yes – *Answer lines 2a, 2b, and 2c, as appropriate, for that column.* 2 ☐ No – *Skip to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, on page 9.*		
2. At any time during the full year 1994, did this establishment . . .		
2a. SWITCH FROM natural gas TO residual fuel oil?		
1502 1 ☐ Yes 2 ☐ No		
2b. SWITCH FROM residual fuel oil TO natural gas?		
1503 1 ☐ Yes 2 ☐ No		
2c. Do lines 2a or 2b contain any "YES" responses?		
1504 1 ☐ Yes – *Answer lines 3 and 4, as appropriate, for that column.* 2 ☐ No – *Skip to line 4 on this page.*		

3. What is the primary reason(s) that this establishment SWITCHED FROM this fuel TO the other fuel?	Total Natural Gas *Mark (X) all that apply*	Residual Fuel Oil *Mark (X) all that apply*
a. Supply shortage or curtailment of this fuel	1505 1 ☐	1506 1 ☐
b. Down-time caused by maintenance	1507 1 ☐	1508 1 ☐
c. Less expensive substitute	1509 1 ☐	1510 1 ☐
d. Environmental restriction on emissions or waste	1511 1 ☐	1512 1 ☐
e. Other *(Specify and mark appropriate box(es))*		
15121 (1) _____	1513 1 ☐	1514 1 ☐
15122 (2) _____	1515 1 ☐	1516 1 ☐

Please answer line 4 as appropriate for the columns with nonzero entries in line 1a. **4.** Regardless of whether or not your establishment actually SWITCHED FROM this fuel during 1994, or did so because of a less expensive substitute, is there a LOWEST PERCENTAGE of price difference of the less expensive substitute that would cause your establishment to SWITCH FROM this fuel? The formula for percentage of price difference is: Percentage of Price Difference = (PC – PA) / PC X 100% Where PC = Price per British thermal unit of current fuel, PA = Price per British thermal unit of alternative fuel	Total Natural Gas *Mark (X) only one box* 1517	Residual Fuel Oil *Mark (X) only one box* 1518
a. Would not switch regardless of percentage of price difference	1 ☐	1 ☐
b. Would switch at price difference of 1 – 5 percent	2 ☐	2 ☐
c. Would switch at price difference of 6 – 10 percent	3 ☐	3 ☐
d. Would switch at price difference of 11 – 15 percent	4 ☐	4 ☐
e. Would switch at price difference of 16 – 20 percent	5 ☐	5 ☐
f. Would switch at price difference of 21 – 30 percent	6 ☐	6 ☐
g. Would switch at price difference of 31 – 40 percent	7 ☐	7 ☐
h. Would switch at price difference of 41 – 50 percent	8 ☐	8 ☐
i. Would switch at price difference over 50 percent	9 ☐	9 ☐
j. Reasonable estimate cannot be provided	10 ☐	10 ☐
k. Would switch to the **more expensive substitute** if price premium were reasonable	11 ☐	11 ☐

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Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE

End Uses (1)	Total Electricity Consumption 10 (2)	Total Coal Excluding Coal Coke and Breeze 46 (3)	Total Natural Gas 30 (4)	Total Diesel Fuel and Distillate Fuel Oil 22 (5)	LPG 24 (6)	Residual Fuel Oil 21 (7)
	Copy from Section I, line 12, column (2)	*Copy from Section II, part A, line 4, column (9)*	*Copy from Section II, part B, line 1, column (9)*	*Copy from Section II, part C, line 3, column (9)*	*Copy from Section II, part C, line 4, column (9)*	*Copy from Section II, part C, line 7, column (9)*
	1,000 kWh	Short Tons	1,000 cu. ft.	Barrels	Gallons	Barrels
1. Quantity consumed – Copy data into line 1 as instructed in the column headings. 70						

Energy sources can be consumed in three major end-use classes: indirect use (boiler fuel), direct process use, and direct nonprocess use. ***Indirect use is the transformation of energy to another usable energy source, as in a boiler for example.*** Direct process use includes usage in motors, ovens, kilns, and strip heaters. Direct nonprocess use includes usage for facility lighting and conditioning equipment.

For each energy source, the sum of the elements in these three classes equals 100 percent.

For columns with nonzero entries in line 1 above, please report the approximate percentage of each energy source used for the purposes listed below.

PLEASE COMPLETE ONE COLUMN BEFORE STARTING ANOTHER.
REASONABLE APPROXIMATIONS ARE ACCEPTABLE – SEE INSTRUCTIONS.

End Uses (1)	Total Electricity Consumption 10 (2)	Total Coal Excluding Coal Coke and Breeze 46 (3)	Total Natural Gas 30 (4)	Total Diesel Fuel and Distillate Fuel Oil 22 (5)	LPG 24 (6)	Residual Fuel Oil 21 (7)
INDIRECT USES – BOILERS						
2. Boiler fuel (e.g., fuel for boilers, gas turbines) 71	%	%	%	%	%	%
DIRECT USES – PROCESS						
3. Process heating (e.g., kilns, furnaces, ovens, strip heaters) 72	%	%	%	%	%	%
4. Process cooling and refrigeration 73	%	%	%	%	%	%
5. Machine drive (e.g., motors, pumps, etc. associated with manufacturing process equipment) 74	%	%	%	%	%	%
6. Electro-chemical processes (e.g., reduction process) 75	%					
7. Other *(Please specify any other uses of energy)* 10761 76	%	%	%	%	%	%
DIRECT USES – NONPROCESS						
8. Facility heating, ventilation, and air conditioning 77	%	%	%	%	%	%
9. Facility lighting 78	%					
10. Facility support other than lines 8 and 9 above (e.g., cooking, water heating, office equipment) 79	%	%	%	%	%	%
11. Onsite transportation, excluding highway usage 80	%		%	%	%	
12. Conventional electricity generation 81		%	%	%	%	%
13. Other *(Please specify any other uses of energy)* 10821 82	%	%	%	%	%	%
TOTAL for all purposes	100%	100%	100%	100%	100%	100%

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Section V – ESTABLISHMENT CHECKLIST

This section is divided into eight parts. All establishments are to complete Parts A, B, C1, C2, and C3.

Part A – ESTIMATED SQUARE FOOTAGE OF BUILDINGS

1. What was the **approximate** total enclosed square footage of the buildings located on this establishment site as of December 31, 1994?

1301

Square Feet		
Mil	Thou	Feet

2. Of the square footage indicated above, what percentage had controlled heating or cooling, using equipment designed to modify the internal building temperature, during 1994?

Please provide the approximate percentage to the nearest multiple of 5 percent.

1302 _____ %

Part B – ENERGY PURCHASING AND ENERGY-MANAGEMENT ACTIVITIES

1. Please refer to Section II, Part B, line 1, column (6) on page 4 for the quantity of **total natural gas that was transferred in and centrally purchased.**

Does column (6) of line B1 on page 4 contain a nonzero entry?

30031
1 ☐ Yes – *Answer lines 1a and 1b below.*
2 ☐ No – *Skip to line 2 below.*

1a. Enter the total expenditures, including all applicable taxes and delivery charges, for the quantity of **total natural gas that was transferred in and centrally purchased.**

If no expenditure was made, please enter zero.

30032

Mil	Thou	Dol

1b. What is the best description of the expenditure amount in line 1a above?

Mark (X) only one box.

30033
1 ☐ Market price
2 ☐ Internal price based on this establishment's accounting principles
3 ☐ Don't know
4 ☐ Other *(Specify)*

30034 _____

2. At any time between January 1, 1992 and December 31, 1994, did your **electric utility** sponsor any type of programs designed for the purposes listed below, regardless of whether or not your establishment participated:

- to lower your energy consumption or costs, or
- to shift the timing of your electricity demand, or
- to promote your use of electricity instead of another energy source?

(Often these programs are referred to as Demand-Side Management (DSM))

Mark (X) only one box.

1303
1 ☐ Yes
2 ☐ No
3 ☐ Don't know

3. At any time between January 1, 1992 and December 31, 1994, did your **natural gas utility** sponsor any type of programs designed for the purposes listed below, regardless of whether or not your establishment participated:

- to lower your energy consumption or costs, or
- to shift the timing of your natural gas demand, or
- to promote your use of natural gas instead of another energy source?

(Often these programs are referred to as Demand-Side Management (DSM))

Mark (X) only one box.

1304
1 ☐ Yes
2 ☐ No
3 ☐ Don't know

4a. For the period between January 1, 1992 and December 31, 1994, was the natural gas utility/local distribution company (LDC) for your establishment the **same entity** as your electric utility?

Mark (X) only one box.

1305
1 ☐ Yes
2 ☐ No
3 ☐ Don't know

4b. At any time between January 1, 1992 and December 31, 1994, was your establishment involved in any type of energy-management activity?

13051
1 ☐ Yes – *Go to line 5 on page 11.*
2 ☐ No – *Skip to Part C1 on page 11.*

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Section V – ESTABLISHMENT CHECKLIST – Continued

Part B – ENERGY PURCHASING AND ENERGY-MANAGEMENT ACTIVITIES – Continued

5. In what type(s) of energy-management activity(ies) was your establishment involved between January 1, 1992 and December 31, 1994?
Mark (X) all that apply. *Note that it is possible to have marks in all four columns for any of the activities listed.*

Energy-Management Activities (1)	Involvement Through **Electric Utility** Sponsorship (2)	Involvement Through Self-Sponsorship (3)	Involvement Through Federal, State, Local Government Sponsorship, Excluding Utilities (4)	Involvement Through Other (3rd Party) Sponsorship (5)
a. *Energy audits*	1306 1☐	13071 1☐	13072 1☐	13073 1☐
b. Electricity load control	1308 1☐	13091 1☐	13092 1☐	13093 1☐
c. Special rate schedule (e.g., interruptible or time-of-use)	1310 1☐			
d. Standby generation program	1326 1☐	13271 1☐	13272 1☐	13273 1☐
e. Equipment rebates	1328 1☐	13291 1☐	13292 1☐	13293 1☐
f. Power factor correction or improvement	1338 1☐	1339 1☐	1340 1☐	1341 1☐
g. U.S. Environmental Protection Agency's Energy Star Program			1342 1☐	
h. U.S. Environmental Protection Agency's Green Lights Program			1343 1☐	
i. U.S. Department of Energy's Motor Challenge Program			1344 1☐	
j. *Equipment installation or retrofit for the* ***primary*** *purpose of improving energy efficiency affecting:*				
(1) Steam production (e.g., boilers, burners)	1312 1☐	13131 1☐	13132 1☐	13133 1☐
(2) *Direct/indirect process heating*	1314 1☐	13151 1☐	13152 1☐	13153 1☐
(3) Direct process cooling, refrigeration	1316 1☐	13171 1☐	13172 1☐	13173 1☐
(4) Direct machine drive (e.g., adjustable-speed drives, motors, *pumps) excluding Motor Challenge Program*	1318 1☐	13191 1☐	13192 1☐	13193 1☐
(5) Facility heating, ventilation, and air conditioning, excluding Energy Star Program	1320 1☐	13211 1☐	13212 1☐	13213 1☐
(6) *Facility lighting, excluding Green Lights Program*	1322 1☐	13231 1☐	13232 1☐	13233 1☐
k. Equipment installation or retrofit for the **primary** purpose of using a different energy source (e.g., electrification). *(Exclude modifications made principally for energy efficiency)*	1324 1☐	13251 1☐	13252 1☐	13253 1☐
l. Other, including other government programs *(Specify)*				
1396 (1) _____	1330 1☐	1331 1☐	1332 1☐	1333 1☐
1397 (2) _____	1334 1☐	1335 1☐	1336 1☐	1337 1☐

All establishments are to complete Parts C1, C2, and C3.

Part C1 – GENERAL TECHNOLOGIES

Mark (X) all technologies that were in place at your establishment during 1994.

1401 1☐ Computer control of building environment (e.g., space-heating equipment, cooling equipment, lights)

1402 1☐ Computer control of processes or major energy-using equipment (e.g., boilers, furnaces, conveyers) used in the manufacturing process

1403 1☐ Waste heat recovery

1404 1☐ Adjustable-speed motors

14041 1☐ None of the above

Part C2 – COGENERATION TECHNOLOGIES

Mark (X) all technologies that were in place at your establishment during 1994.

14042 1☐ Steam turbines supplied by either conventional or fluidized bed boilers

14043 1☐ Conventional combustion turbines with heat recovery

14044 1☐ Combined-cycle combustion turbines

14045 1☐ Internal combustion engines with heat recovery

14046 1☐ Steam turbines supplied by heat recovered from high-temperature processes

14047 1☐ None of the above

Part C3 – ONE-TIME COLLECTION OF ESTABLISHMENT ACTIVITIES

Your CORPORATE energy manager has the option of completing this part for EACH individual establishment site. Otherwise, your energy manager at the establishment site is the best source for this information. Please respond using best-guess estimates from respondents' own knowledge. A search for these items is not necessary.

1. What is your establishment's most commonly used method of evaluation for purchases of, and modifications to, electric motor systems?
Mark (X) only one box.

1601 1☐ *An evaluation is based primarily on all expected costs* over the projected lifetime of the system.

2☐ An evaluation is based primarily on initial purchase prices of competing systems.

3☐ Another type of evaluation is used.

4☐ *An evaluation is done but not certain* ***how*** *it is done.*

5☐ No evaluation is done.

6☐ Not certain **if** any type of evaluation is done.

2. What kind of listing do you keep regarding your operating electric motors at this establishment?
Mark (X) only one box.

1602 1☐ A listing is kept of **all** operating electric motors at this establishment – *Go to line 3 below.*

2☐ A listing is kept of **some** operating electric motors at this establishment – *Go to line 3 below.*

3☐ No listing at all is kept – *Skip to page 12.*

4☐ The existence of a listing is not known – *Skip to page 12.*

3. Does your listing contain information on age of your motors? ***Mark (X) only one box.***

1603 1☐ Yes 2☐ No 3☐ Don't know

4. *Does your listing contain information on horsepower (wattage) of your motors?* ***Mark (X) only one box.***

1604 1☐ Yes 2☐ No 3☐ Don't know

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Section V – ESTABLISHMENT CHECKLIST – Continued

There is one additional part to complete for specific SIC codes. This establishment's four-digit SIC code is included as part of the address mailing label on page 1 of this survey.

If the first two digits of your establishment's SIC code are:

"20" (food industries), then complete Part D.
or "22" (textile industries), then complete Part E.
or "32" (stone, clay, and glass industries), then complete Part F.

Otherwise, skip to Section VI – REMARKS.

Part D – SPECIFIC TECHNOLOGIES FOR FOOD INDUSTRIES (SIC 20 ONLY)

Mark (X) all technologies that were in place at your establishment during 1994.

1405 1☐ Infrared heating
1406 1☐ Microwave drying
1407 1☐ Closed-cycle heat pump system used to recover heat
1408 1☐ Open-cycle heat pump system used to produce steam
1409 1☐ Gas-driven rotary engines and/or turbines
1410 1☐ Membrane separation
1411 1☐ Irradiation
1412 1☐ Freeze concentration
14121 1☐ None of the above

Part E – SPECIFIC TECHNOLOGIES FOR TEXTILE INDUSTRIES (SIC 22 ONLY)

Mark (X) all technologies that were in place at your establishment during 1994.

1413 1☐ Open-end spinning
1414 1☐ Water-jet weaving
1415 1☐ Projectile weaving
1416 1☐ Wet-on-wet dyeing and finishing
1417 1☐ Indirect steam heating of dye
1418 1☐ Dye bath reuse
1419 1☐ Foam dyeing
1420 1☐ Foam printing
1421 1☐ Foam finishing
1422 1☐ Low-add-on finishing
14221 1☐ None of the above

Part F – SPECIFIC TECHNOLOGIES FOR STONE, CLAY, AND GLASS INDUSTRIES (SIC 32 ONLY)

Mark (X) all technologies that were in place at your establishment during 1994.

Glass Related

1423 1☐ Oxygen-enriched combustion air
1424 1☐ Forehearth designed for independently applied heating and cooling operations and minimal energy use
1425 1☐ Forehearth designed to eliminate side-to-middle temperature gradients with improved temperature stability
1426 1☐ Batch preheaters
1428 1☐ Advanced glass refiner
14281 1☐ None of the above

Cement Related

1429 1☐ High-efficiency classifiers in closed-circuit grinding plants
1430 1☐ Improved grinding media and linings, wear-resistant materials such as high-chrome alloys, and classifying liners
1431 1☐ Waste heat drying
1432 1☐ Dry-suspension preheater kilns
1433 1☐ Dry-precalciner kilns
1434 1☐ Kiln combustion system improvements such as semi-direct/indirect coal firing, optimal oxygen levels and advanced burners matched to the kiln/cooler design flame control
1435 1☐ Controlled particle size cement
14351 1☐ None of the above

Section VI – REMARKS

Please use this space or attach a separate sheet for any explanations that may be essential in understanding your reported data.

1599

Section VII – CERTIFICATION

Name of person to contact regarding this report – *(Print or type)*		Telephone number →	Area code	Number	Extension
Address – Number and street	City		State	ZIP Code	

Period covered by this report: →	From			To		
	Month	Day	Year	Month	Day	Year

Signature of authorized person	Internet number or E-Mail (if available)	Date
	_____ @ _____	

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PLEASE PHOTOCOPY THIS FORM FOR YOUR RECORDS

FORM EIA-846A (4-6-95)

1994 Manufacturing Energy Consumption Survey
Form EIA-846B
Petroleum Refineries

OMB No. 1905-0169: Approval Expires 04/30/98

Form **EIA-846B** (4-13-95)

U.S. Department of Commerce
Bureau of the Census
Acting as Collecting and Compiling Agent For

UNITED STATES DEPARTMENT OF ENERGY
ENERGY INFORMATION ADMINISTRATION

Petroleum Refineries 1994 MANUFACTURING ENERGY CONSUMPTION SURVEY

In correspondence pertaining to this report, please refer to this Census File Number (CFN).

Please correct errors in name, address, and ZIP Code. ENTER street and number if not shown.

PLEASE COMPLETE THIS FORM AND RETURN TO: BUREAU OF THE CENSUS
1201 East 10th Street
Jeffersonville, IN 47132-0001

DUE DATE:

If you cannot file by the due date, a time extension request should be sent to the above address. Please include your 11-digit Census File Number (CFN).

NOTE

Please read the enclosed instructions before filling out this form. Complete each item. If you have any questions, call 1-800-866-6327.

The Manufacturing Energy Consumption Survey – The Manufacturing Energy Consumption Survey (MECS) was designed, and is being sponsored, by the Energy Information Administration (EIA) of the U.S. Department of Energy (DOE). The survey is administered and compiled by the U.S. Bureau of the Census for the EIA. The previous MECS was conducted covering the year 1991.

Mandatory Requirement – This survey is **mandatory** under the Federal Energy Administration Act of 1974, Pub. L. No. 93-275, and under Title 3, Subtitle B, of the Omnibus Budget Reconciliation Act of 1986, Pub. L. No. 99-509, as amended by Title 1, Subtitle G, of the Energy Policy Act of 1992, Pub. L. No. 102-486. Failure to respond may result in criminal fines, civil penalties, and other sanctions as provided by law. Response is required by law from establishments included in the MECS sample and receiving the MECS form.

Confidentiality of Data – Under Section 9 of Title 13, U.S. Code, your report to the Census Bureau is **confidential**. It may be seen only by sworn Census Bureau employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Purpose of This Survey – The MECS will collect data on energy consumption and usage patterns for the manufacturing sector of the U.S. economy. In addition, it will measure the short-term (within 30 days) capability of your establishment to substitute fuels in place of those actually consumed in 1994. The information obtained from the MECS forms will be used to publish aggregate statistics on the following: consumption of energy for fuel and nonfuel uses, energy characteristics of buildings in the manufacturing sector, energy consumption by end use, technologies currently in use by U.S. manufacturers, energy prices, electricity generation onsite, fuel-switching capabilities, and participation in energy-management activities. This information will be used by the DOE to implement policy plans effectively as well as to assist utilities in more accurate demand forecasting and resource planning.

Form EIA-846B – This form is addressed to establishments operating primarily in the manufacturing sector in industries as defined by the 1987 Standard Industrial Classification (SIC) Manual. Form EIA-846B is addressed to establishments operating primarily in the Petroleum Refining Industry (SIC 2911). If your establishment has received form EIA-846B but is not a petroleum refinery, call the Census Bureau, MECS staff, on 1-800-866-6327 to report this information. Government-owned establishments that are privately operated are NOT exempt from completing this survey.

Due Date – The questionnaire should be returned no later than the due date specified above. If you need additional time, please call our processing office on 1-800-528-3049. Please use the enclosed return envelope. If the envelope has been misplaced, return the completed questionnaire to us at the above address.

1994 Manufacturing Energy Consumption Survey
Form EIA-846B
Petroleum Refineries

A. General Instructions

1. **No entries are required in the shaded areas.** All shaded areas are to be left blank.
2. Use the indicated units specified on the questionnaire for reporting all quantities. For example:
   Electricity – Thousands of kilowatthours (1,000 kWh)
   Steam – Millions of British thermal units (Million Btu)
   Industrial hot water – Millions of Btu (Million Btu)
   Coal – Short Tons
   Natural gas – Thousands of cubic feet (1,000 cu. ft.)
   Hydrogen – Millions of Btu (Million Btu)
   Diesel fuel and distillate fuel oil – Barrels
   Liquid petroleum gas – Gallons
   Natural gas liquids – Gallons

   If you need conversion factors in order to report in the specified units, refer to the detailed instructions for Sections I and II.
3. **Do not consolidate establishments.** The reporting boundaries for your establishment should correspond to those used in the Annual Survey of Manufactures and/or the Census of Manufactures.
4. Be sure to mark (X) the appropriate box at the top of page 4 to classify your establishment. If the establishment consists of **refinery operations only**, do not make any entries in Section II, columns (9) and (10).
5. If you do not maintain book records for particular items, please use carefully prepared estimates.
6. Please refer to the accompanying instruction guide as you answer the questions.

B. Operational Status

IF FORM MA-1000 (ANNUAL SURVEY OF MANUFACTURES) WAS COMPLETED FOR THIS ESTABLISHMENT IN 1994, SKIP THIS ITEM AND GO TO SECTION I – NONCOMBUSTIBLE ENERGY SOURCES. Otherwise, please **complete this item** fully to avoid unnecessary correspondence. Mark the box (1–5) that is applicable to the operation of this establishment at the end of 1994. If you check box 3, 4, or 5, please fill in the month, day, and year (numbers only, please) that the action became effective. If box 4 or 5 is checked, also supply the name and address (or location) of the new or former owner or operating company.

If the ownership of this establishment changed in 1994, please make certain that the date of the change in ownership is recorded in this item.

1. **If you sold the establishment during the year,** complete all sections of the report form for activities that occurred in 1994 **prior** to the sale.
2. **If you bought the establishment during the year,** complete all sections of the report form for activities that occurred in 1994 **after** the sale.

Mark (X) only ONE box which best describes this establishment at the end of 1994. If this establishment was not in operation for the full year during 1994, please complete this form for the part of the year that you were in operation.

		Date (Numbers Only)		
		Month	Day	Year
0001	1 ☐ In operation			
	2 ☐ Temporarily or seasonally inactive			
	3 ☐ Ceased operation *(Provide date at right)*			
	4 ☐ Sold or leased TO another operator *(Provide date at right AND enter name, etc., below)*			
	5 ☐ Acquired or leased FROM another operator *(Provide date at right AND enter name, etc., below)*			

Name of new/former owner or operator	Employer Identification (EI) Number (9 digits)

Number and street	City	State	ZIP Code

CONTINUE WITH SECTION I ON PAGE 3

1994 Manufacturing Energy Consumption Survey
Form EIA-846B
Petroleum Refineries

Section I – NONCOMBUSTIBLE ENERGY SOURCES

Item Description (1)	IF ZERO, PLEASE ENTER ZERO (0) IN EACH BOX											
	Electricity				Steam				Industrial Hot Water			
	10 (2)				11 (3)				12 (4)			
1a. During 1994, what amount of each energy source was **purchased from utilities** by this establishment and delivered to this establishment site? *(DO NOT include purchases by a central purchasing agent, quantities delivered from other establishments of your company, or quantities for which payment was made in-kind.)* 01	Kilowatthours				Million Btu				Million Btu			
	Mil	Thou	kWh									
1b. What was the total expenditure, including all applicable taxes, for the purchased energy source(s) reported on line 1a? 02	Dollars				Dollars				Dollars			
	Mil	Thou	Dol		Mil	Thou	Dol		Mil	Thou	Dol	
2a. During 1994, what amount of electricity and steam was **purchased from nonutility suppliers** by this establishment and delivered to this establishment site? 03	Kilowatthours				Million Btu							
	Mil	Thou	kWh									
2b. What was the total expenditure, including all applicable taxes, for the purchased energy source(s) reported on line 2a? 04	Dollars				Dollars							
	Mil	Thou	Dol		Mil	Thou	Dol					
3. During 1994, what amount of each energy source was **transferred** from outside establishments and delivered to this establishment site? *(DO NOT include the purchases reported in lines 1a and 2a. DO include quantities received from a central purchasing agent, quantities delivered from other establishments of your company, and quantities for which payment was made in-kind.)* 05	Kilowatthours				Million Btu				Million Btu			
	Mil	Thou	kWh									
4. **TOTAL QUANTITIES OF ELECTRICITY RECEIVED ONSITE** *(Sum of lines 1a, 2a, and 3.)* **NOTE** – Copy this quantity for electricity to Section III – FUEL SWITCHING, part A, line 1a, column (2) on page 6. 06												
5. During 1994, how much electricity was generated on this establishment site by cogeneration? *(Include ALL cogeneration facilities at this establishment site.)* 07												
6. During 1994, how much of each energy source was generated onsite from each of the following:					Million Btu				Million Btu			
a. Solar power 081												
b. Wind power 082												
c. Hydropower 083												
d. Geothermal power 084												
7. During 1994, how much electricity was generated onsite by processes other than those covered on lines 5, 6a, 6b, 6c, and 6d? 09												
8. **TOTAL ONSITE GENERATION OF ELECTRICITY** *(Sum of lines 5, 6a, 6b, 6c, 6d, and 7.)* 10												
9. During 1994, how much electricity was sold or transferred to utilities? 11												
10. During 1994, how much of each energy source was sold or transferred to any establishments other than utilities? 12					Million Btu				Million Btu			
11. **TOTAL ELECTRICITY SALES AND TRANSFERS OFFSITE** *(Line 9 plus line 10.)* 13												
12. **TOTAL ONSITE CONSUMPTION OF ELECTRICITY.** *(Line 4 plus line 8 minus line 11.)* **NOTE** – Copy this quantity for electricity consumption to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, line 1, column (2) on page 9. 14												

FORM EIA-846B (4-13-95) Page 3

1994 Manufacturing Energy Consumption Survey
Form EIA-846B
Petoleum Refineries

Section II – COMBUSTIBLE ENERGY SOURCES

IMPORTANT – HOW TO REPORT

Mark (X) the box next to the correct description of the establishment identified on the address label. Then supply data for Section II according to the instructions for that description.

1801

1 ☐ Establishment consists of REFINERY operations ONLY. (There may be nonrefinery (petrochemical) operations collocated, but those operations are identified as a separate establishment for purposes of the Annual Survey of Manufactures, Census Form MA-1000.) – ***Complete Section II but do NOT make any entries in columns (5) and (10).***

2 ☐ Establishment consists of both REFINERY and NONREFINERY operations. – ***Complete Section II including columns (5) and (10).***

3 ☐ None of the above – Call the MECS staff on 1-800-866-6327 IF NOT A REFINERY.

Energy Sources	Census Use Only	Units used for reporting quantities	Energy sources **received** onsite in 1994					
			Quantity purchased by and delivered to this establishment	**Total expenditures, including taxes and delivery charges, of the quantity in column (4)**			**Total quantity of transfers in and central purchases**	
			01	02	Mil	Thou	Dol	03
(1)	(2)	(3)	(4)			(5)		(6)
A. PETROLEUM BASED								
1. Butane as liquid petroleum gas (LPG) or natural gas liquids (NGL)	36	Gallons						
2. Ethane as liquid petroleum gas (LPG) or natural gas liquids (NGL)	37	Gallons						
3. Propane as liquid petroleum gas (LPG) or natural gas liquids (NGL)	38	Gallons						
4. Mixtures of ethane, butane, and propane	34	Gallons						
5. Other LPG and NGL (e.g., butylene, ethylene, propylene)	35	Gallons						
6. **Total LPG and NGL** *(Sum of lines A1, A2, A3, A4 and A5)*	24	Gallons						
7. Diesel fuel, excluding highway usage	28	Barrels						
8. Distillate fuel oil (numbers 1, 2, and 4 fuel oils)	29	Barrels						
9. **Total diesel fuel and distillate fuel oil** *(Sum of lines A7 and A8)*	22	Barrels						
10. Crude oil/lease condensate	20	Barrels						
11. Motor gasoline, excluding highway usage	23	Gallons						
12. Residual fuel oil (numbers 5, 6, Navy Special, and Bunker C)	21	Barrels						
13. Waste and byproduct gases (e.g., refinery offgas, vent gas, plant gas, still gas)	62	Million Btu						
14. Fluid catalytic cracking unit coke	77	Barrels						
15. Marketable petroleum coke – unrefined or green	78	Barrels						
16. Marketable petroleum coke – calcined	79	Barrels						
17. Waste oils and tars	71	Barrels						
18. Other *(Specify. Specify units, if not million Btu)*								
9598 (1)	95	Million Btu						
9698 (2)	96	Million Btu						
B. NONPETROLEUM BASED								
1. Anthracite	40	Short Tons						
2. Bituminous and subbituminous coal	41	Short Tons						
3. Lignite	42	Short Tons						
4. **Total coal** *(Sum of lines B1, B2, and B3)*	46	Short Tons						
5. Coal coke	43	Short Tons						
6. Breeze	44	Short Tons						
7. **Total natural gas** *(Include well production onsite in column (7))*	30	1,000 cu. ft.						*See Pg. 10, Part B*
In the following parts 7a–7e please classify natural gas purchases which are reported in line 7.								
UTILITY/LDC								
7a. Natural gas purchased directly from your utilities/local distribution companies (LDC) at a **firm** service rate	48	1,000 cu. ft.						
7b. Natural gas purchased directly from LDC at an **interruptible** service rate	49	1,000 cu. ft.						
7c. Natural gas purchased directly from LDC at **other** service rates *(Specify type of service rate)*								
5098	50	1,000 cu. ft.						
Did this establishment purchase natural gas in 1994 from sources other than utilities/LDC?								
50981 1 ☐ YES – *Go to line 7d on page 6*								
2 ☐ NO – *Skip to line B8, Hydrogen, on page 6*								

1994 Manufacturing Energy Consumption Survey
Form EIA-846B
Petroleum Refineries

Section II – COMBUSTIBLE ENERGY SOURCES – Continued

Enter amounts for **entire establishment**		Enter amounts for **nonrefinery operations only.** Complete if box 2 at top of page 4 is marked (X).		
Quantity produced onsite	**Quantity consumed as a fuel**	**Quantity consumed for all nonfuel purposes**	**Quantity shipped offsite to other establishments in 1994**	**Energy Sources**
04 (7)	06 (8)	07 (9)	08 (10)	(11)
				A. PETROLEUM BASED
				1. Butane as liquid petroleum gas (LPG) or natural gas liquids (NGL)
				2. Ethane as liquid petroleum gas (LPG) or natural gas liquids (NGL)
				3. Propane as liquid petroleum gas (LPG) or natural gas liquids (NGL)
				4. Mixtures of ethane, butane, and propane
				5. Other LPG and NGL (e.g., butylene, ethylene, propylene)
	Copy to Pg. 7, line 1a & Pg. 9, line 1			**6. Total LPG and NGL** *(Sum of lines A1, A2, A3, A4 and A5)*
				7. Diesel fuel, excluding highway usage
				8. Distillate fuel oil (numbers 1, 2, and 4 fuel oils)
	Copy to Pg. 7, line 1a & Pg. 9, line 1			**9. Total diesel fuel and distillate fuel oil** *(Sum of lines A7 and A8)*
				10. Crude oil/lease condensate
				11. Motor gasoline, excluding highway usage
	Copy to Pg. 7, line 1a & Pg. 9, line 1			**12.** Residual fuel oil (numbers 5, 6, Navy Special, and Bunker C)
				13. Waste and byproduct gases (e.g., refinery offgas, vent gas, plant gas, still gas)
				14. Fluid catalytic cracking unit coke
				15. Marketable petroleum coke – unrefined or green
				16. Marketable petroleum coke – calcined
				17. Waste oils and tars
				18. Other *(Specify)* (1)
				(2)
				B. NONPETROLEUM BASED
				1. Anthracite
				2. Bituminous and subbituminous coal
				3. Lignite
	Copy to Pg. 6, line 1a & Pg. 9, line 1			**4. Total coal** *(Sum of lines B1, B2, and B3)*
				5. Coal coke
				6. Breeze
	Copy to Pg. 7, line 1a & Pg. 9, line 1			**7. Total natural gas**
				7a. Natural gas purchased from utilities/ LDC at a **firm** service rate
				7b. Natural gas purchased from LDC at an ***interruptible*** *service rate*
				7c. Natural gas purchased from LDC at **other service** rates

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1994 Manufacturing Energy Consumption Survey
Form EIA-846B
Petroleum Refineries

Section II – COMBUSTIBLE ENERGY SOURCES – Continued

Energy Sources (1)	Census Use Only (2)	Units used for reporting quantities (3)	Energy sources received onsite in 1994: Quantity purchased by and delivered to this establishment 01 (4)	Total expenditures, including taxes and delivery charges, of the quantity in column (4) 02 (5) Mil	Thou	Dol	Total quantity of transfers in and central purchases 03 (6)
B. NONPETROLEUM BASED – Continued NONUTILITY/NON-LDC							
7d. Natural gas purchased from non-LDC sources (e.g., producers, brokers, marketers, and other non-LDC sources including fees for transportation and storage)	51	1,000 cu. ft.					
7e. Of the expenditures given in line 7d, please provide the following: *(Please note that the sum of lines e(1), e(2), and e(3) should equal line 7d.)* (1) Cost of supplies *(Include brokers' fees, suppliers' fees)*	52						
(2) Cost of transportation – ***Please mark (X) all the service rates that apply.***							
53021 1 ☐ Firm (e.g., no-notice, bundled firm)							
53022 1 ☐ Interruptible							
53023 1 ☐ Don't know							
53024 1 ☐ Other/Released capacity *(Specify type of service rate)* 5396	53						
(3) Other costs (e.g., storage) *(Specify)* 5498	54						
8. Hydrogen	63	Million Btu					
9. Wood fuel and wood/paper refuse (e.g., packing materials, roundwood, wood chips, pallets)	72	Million Btu					
10. Other *(Specify. Specify units, if not million Btu.)*							
9798 (1)	97	Million Btu					
9898 (2)	98	Million Btu					

Section III – FUEL SWITCHING

A. BASIC CAPABILITY – The purpose of this part is to determine this establishment's potential to switch from one type of fuel to another, regardless of whether or not any fuel switching was actually done.

Item Description (1)	Total Electricity Received 10 (2)	Total Coal Excluding Coal Coke and Breeze 46 (3)
	Copy from Section I, line 4, column (2)	*Copy from Section II, part B, line 4, column (8)*
	1,000 Kilowatthours	Short Tons
1a. Quantity Consumed – Copy data into line 1a as instructed in the column headings. 50		
1b. Does line 1a contain any nonzero entries?		
10501 1 ☐ Yes – *Answer lines 2 and 3 for that column.*		
2 ☐ No – *Skip to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, on page 9.*		
Do not consider differences in energy prices when estimating amounts.	1,000 Kilowatthours	Short Tons
2. Quantity Nonswitchable – Enter the amount of the quantity in line 1a that could NOT have been replaced within 30 days by another energy source in 1994. 51		
3a. Quantity Switchable – Subtract line 2 from line 1a and enter the results. This represents the total quantity of energy consumption that COULD HAVE BEEN replaced within 30 days by one or more alternative energy sources in 1994. 52	1,000 Kilowatthours	Short Tons
3b. Does line 3a contain any nonzero entries?		
10521 1 ☐ Yes – *Answer lines 4 through 11, as appropriate, for that column.*		
2 ☐ No – *Skip to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, on page 9.*		
PLEASE COMPLETE ONE COLUMN BEFORE STARTING ANOTHER		
4. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by electricity? 53		Short Tons
5. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by coal, excluding coal coke and breeze? 67	1,000 Kilowatthours	
6. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by total coal coke and breeze, excluding coal included in line 5 above? 69	1,000 Kilowatthours	
7. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by natural gas from any supplier(s)? 57	1,000 Kilowatthours	Short Tons
8. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by total diesel fuel and distillate fuel oil? 59	1,000 Kilowatthours	Short Tons
9. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by total LPG and NGL? 61	1,000 Kilowatthours	Short Tons
10. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by residual fuel oil? 63	1,000 Kilowatthours	Short Tons
11. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by any other energy source? *(Specify the energy source)* 1099 65	1,000 Kilowatthours	Short Tons

1994 Manufacturing Energy Consumption Survey
Form EIA-846B
Petroleum Refineries

Section II – COMBUSTIBLE ENERGY SOURCES – Continued

Enter amounts for **entire establishment**		Enter amounts for **nonrefinery operations only.** Complete if box 2 at top of page 4 is marked (X).		
Quantity produced onsite	**Quantity consumed as a fuel**	**Quantity consumed for all nonfuel purposes**	**Quantity shipped offsite to other establishments in 1994**	**Energy Sources**
04 (7)	06 (8)	07 (9)	08 (10)	(11)
				7d. Natural gas purchased from non-LDC sources
				7e(1). Cost of supplies
				7e(2). Cost of transportation
				7e(3). Other costs
				8. Hydrogen
				9. Wood fuel and wood/paper refuse
				10. Other *(Specify)*
				(1)
				(2)

Section III – FUEL SWITCHING – Continued

Total Natural Gas	**Total Diesel Fuel and Distillate Fuel Oil**	**Total LPG and NGL**	**Residual Fuel Oil**
30 (4)	22 (5)	24 (6)	21 (7)
Copy from Section II, part B, line 7, column (8)	*Copy from Section II, part A, line 9, column (8)*	*Copy from Section II, part A, line 6, column (8)*	*Copy from Section II, part A, line 12, column (8)*
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
PLEASE COMPLETE ONE COLUMN BEFORE STARTING ANOTHER			
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
	Barrels	Gallons	*Copy to line 1a on page 8* Barrels
1,000 cu. ft.		Gallons	Barrels
1,000 cu. ft.	Barrels		Barrels
Copy to line 1a on page 8 1,000 cu. ft.	Barrels	Gallons	
1,000 cu. ft.	Barrels	Gallons	Barrels

1994 Manufacturing Energy Consumption Survey
Form EIA-846B
Petroleum Refineries

Section III – FUEL SWITCHING – Continued

B. SWITCHING BETWEEN NATURAL GAS AND RESIDUAL FUEL OIL

The purpose of this part is to determine, for this establishment, if any actual switching took place between two specific fuels, namely natural gas and residual fuel oil; if so, the primary reasons for the switching and at what price difference would switching be a viable option.

Item Description (1)	Total Natural Gas 30 (2)	Residual Fuel Oil 21 (3)
	Copy from Section III, part A, line 10, column (4) 1,000 cu ft.	*Copy from Section III, part A, line 7, column (7)* Barrels
1a. Replaceable amount – Copy data into line 1a as instructed in the column headings. 90		
1b. Does line 1a contain any nonzero entries? 1501 1 ☐ Yes – *Answer lines 2a, 2b, and 2c, as appropriate, for that column.* 2 ☐ No – *Skip to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, on page 9.*		
2. At any time during the full year 1994, did this establishment . . .		
2a. SWITCH FROM natural gas TO residual fuel oil? 1502 1 ☐ Yes 2 ☐ No		
2b. SWITCH FROM residual fuel oil TO natural gas? 1503 1 ☐ Yes 2 ☐ No		
2c. Do lines 2a or 2b contain any "YES" responses? 1504 1 ☐ Yes – *Answer lines 3 and 4, as appropriate, for that column.* 2 ☐ No – *Skip to line 4 on this page.*		

3. What is the primary reason(s) that this establishment SWITCHED FROM this fuel TO the other fuel?	Total Natural Gas *Mark (X) all that apply*	Residual Fuel Oil *Mark (X) all that apply*
a. Supply shortage or curtailment of this fuel	1505 1 ☐	1506 1 ☐
b. Down-time caused by maintenance	1507 1 ☐	1508 1 ☐
c. Less expensive substitute	1509 1 ☐	1510 1 ☐
d. Environmental restriction on emissions or waste	1511 1 ☐	1512 1 ☐
e. Other *(Specify and mark appropriate box(es))*		
15121 (1) _____	1513 1 ☐	1514 1 ☐
15122 (2) _____	1515 1 ☐	1516 1 ☐

Please answer line 4 as appropriate for the columns with nonzero entries in line 1a. **4.** Regardless of whether or not your establishment actually SWITCHED FROM this fuel during 1994, or did so because of a less expensive substitute, is there a LOWEST PERCENTAGE of price difference of the less expensive substitute that would cause your establishment to SWITCH FROM this fuel? The formula for percentage of price difference is: Percentage of Price Difference = (PC – PA) / PC X 100% Where PC = Price per British thermal unit of current fuel, PA = Price per British thermal unit of alternative fuel	Total Natural Gas *Mark (X) only one box* 1517	Residual Fuel Oil *Mark (X) only one box* 1518
a. Would not switch regardless of percentage of price difference	1 ☐	1 ☐
b. Would switch at price difference of 1 – 5 percent	2 ☐	2 ☐
c. Would switch at price difference of 6 – 10 percent	3 ☐	3 ☐
d. Would switch at price difference of 11 – 15 percent	4 ☐	4 ☐
e. Would switch at price difference of 16 – 20 percent	5 ☐	5 ☐
f. Would switch at price difference of 21 – 30 percent	6 ☐	6 ☐
g. Would switch at price difference of 31 – 40 percent	7 ☐	7 ☐
h. Would switch at price difference of 41 – 50 percent	8 ☐	8 ☐
i. Would switch at price difference over 50 percent	9 ☐	9 ☐
j. Reasonable estimate cannot be provided	10 ☐	10 ☐
k. Would switch to the **more expensive substitute** if price premium were reasonable	11 ☐	11 ☐

1994 Manufacturing Energy Consumption Survey
Form EIA-846B
Petroleum Refineries

Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE

End Uses (1)	Total Electricity Consumption 10 (2)	Total Coal Excluding Coal Coke and Breeze 46 (3)	Total Natural Gas 30 (4)	Total Diesel Fuel and Distillate Fuel Oil 22 (5)	Total LPG and NGL 24 (6)	Residual Fuel Oil 21 (7)
	Copy from Section I, line 12, column (2)	*Copy from Section II, part B, line 4, column (8)*	*Copy from Section II, part B, line 7, column (8)*	*Copy from Section II, part A, line 9, column (8)*	*Copy from Section II, part A, line 6, column (8)*	*Copy from Section II, part A, line 12, column (8)*
	1,000 kWh	Short Tons	1,000 cu. ft.	Barrels	Gallons	Barrels
1. Quantity consumed – Copy data into line 1 as instructed in the column headings. 70						

Energy sources can be consumed in three major end-use classes: indirect use (boiler fuel), direct process use, and direct nonprocess use. **Indirect use is the transformation of energy to another usable energy source, as in a boiler for example.** Direct process use includes usage in motors, ovens, kilns, and strip heaters. Direct nonprocess use includes usage for facility lighting and conditioning equipment.

For each energy source, the sum of the elements in these three classes equals 100 percent.

For columns with nonzero entries in line 1 above, please report the approximate percentage of each energy source used for the purposes listed below.

PLEASE COMPLETE ONE COLUMN BEFORE STARTING ANOTHER.
REASONABLE APPROXIMATIONS ARE ACCEPTABLE – SEE INSTRUCTIONS.

End Uses (1)	Total Electricity Consumption 10 (2)	Total Coal Excluding Coal Coke and Breeze 46 (3)	Total Natural Gas 30 (4)	Total Diesel Fuel and Distillate Fuel Oil 22 (5)	Total LPG and NGL 24 (6)	Residual Fuel Oil 21 (7)
INDIRECT USES – BOILERS						
2. Boiler fuel (e.g., fuel for boilers, gas turbines) 71	%	%	%	%	%	%
DIRECT USES – PROCESS						
3. Process heating (e.g., kilns, furnaces, ovens, strip heaters) 72	%	%	%	%	%	%
4. Process cooling and refrigeration 73	%	%	%	%	%	%
5. Machine drive (e.g., motors, pumps, etc. associated with manufacturing process equipment) 74	%	%	%	%	%	%
6. Electro-chemical processes (e.g., reduction process) 75	%					
7. Other *(Please specify any other uses of energy)* 10761 76	%	%	%	%	%	%
DIRECT USES – NONPROCESS						
8. Facility heating, ventilation, and air conditioning 77	%	%	%	%	%	%
9. Facility lighting 78	%					
10. Facility support other than lines 8 and 9 above (e.g., cooking, water heating, office equipment) 79	%	%	%	%	%	%
11. Onsite transportation, excluding highway usage 80	%		%	%	%	
12. Conventional electricity generation 81		%	%	%	%	%
13. Other *(Please specify any other uses of energy)* 10821 82	%	%	%	%	%	%
TOTAL for all purposes	100%	100%	100%	100%	100%	100%

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Petroleum Refineries

Section V – ESTABLISHMENT CHECKLIST

This section is divided into five parts. All establishments are to complete Parts A, B, C1, C2, and C3.

Part A – ESTIMATED SQUARE FOOTAGE OF BUILDINGS

1. What was the **approximate** total enclosed square footage of the buildings located on this establishment site as of December 31, 1994?

1301

Square Feet		
Mil	Thou	Feet

2. Of the square footage indicated above, what percentage had controlled heating or cooling, using equipment designed to modify the internal building temperature, during 1994?

Please provide the approximate percentage to the nearest multiple of 5 percent.

1302 _____ %

Part B – ENERGY PURCHASING AND ENERGY-MANAGEMENT ACTIVITIES

1. Please refer to Section II, Part B, line 7, column (6) on page 4 for the quantity of **total natural gas that was transferred in and centrally purchased.**

Does column (6) of line B7 on page 4 contain a nonzero entry?

30031
1 ☐ Yes – *Answer lines 1a and 1b below.*
2 ☐ No – *Skip to line 2 below.*

1a. Enter the total expenditures, including all applicable taxes and delivery charges, for the quantity of **total natural gas that was transferred in and centrally purchased.**

If no expenditure was made, please enter zero.

30032

Mil	Thou	Dol

1b. What is the best description of the expenditure amount in line 1a above?
Mark (X) only one box.

30033
1 ☐ Market price
2 ☐ Internal price based on this establishment's accounting principles
3 ☐ Don't know
4 ☐ Other *(Specify)*

30034 _____

2. At any time between January 1, 1992 and December 31, 1994, did your **electric utility** sponsor any type of programs designed for the purposes listed below, regardless of whether or not your establishment participated:
- to lower your energy consumption or costs, or
- to shift the timing of your electricity demand, or
- to promote your use of electricity instead of another energy source?

(Often these programs are referred to as Demand-Side Management (DSM))
Mark (X) only one box.

1303
1 ☐ Yes
2 ☐ No
3 ☐ Don't know

3. At any time between January 1, 1992 and December 31, 1994, did your **natural gas utility** sponsor any type of programs designed for the purposes listed below, regardless of whether or not your establishment participated:
- to lower your energy consumption or costs, or
- to shift the timing of your natural gas demand, or
- to promote your use of natural gas instead of another energy source?

(Often these programs are referred to as Demand-Side Management (DSM))
Mark (X) only one box.

1304
1 ☐ Yes
2 ☐ No
3 ☐ Don't know

4a. For the period between January 1, 1992 and December 31, 1994, was the natural gas utility/local distribution company (LDC) for your establishment the **same entity** as your electric utility?
Mark (X) only one box.

1305
1 ☐ Yes
2 ☐ No
3 ☐ Don't know

4b. At any time between January 1, 1992 and December 31, 1994, was your establishment involved in any type of energy-management activity?

13051
1 ☐ Yes – *Go to line 5 on page 11.*
2 ☐ No – *Skip to Part C1 on page 11.*

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Section V – ESTABLISHMENT CHECKLIST – Continued

Part B – ENERGY PURCHASING AND ENERGY-MANAGEMENT ACTIVITIES – Continued

5. In what type(s) of energy-management activity(ies) was your establishment involved between January 1, 1992 and December 31, 1994?
Mark (X) all that apply. *Note that it is possible to have marks in all four columns for any of the activities listed.*

Energy-Management Activities (1)	Involvement Through Electric Utility Sponsorship (2)	Involvement Through Self-Sponsorship (3)	Involvement Through Federal, State, Local Government Sponsorship, Excluding Utilities (4)	Involvement Through Other (3rd Party) Sponsorship (5)
a. Energy audits	1306 1☐	13071 1☐	13072 1☐	13073 1☐
b. Electricity load control	1308 1☐	13091 1☐	13092 1☐	13093 1☐
c. Special rate schedule (e.g., interruptible or time-of-use)	1310 1☐			
d. Standby generation program	1326 1☐	13271 1☐	13272 1☐	13273 1☐
e. Equipment rebates	1328 1☐	13291 1☐	13292 1☐	13293 1☐
f. Power factor correction or improvement	1338 1☐	1339 1☐	1340 1☐	1341 1☐
g. U.S. Environmental Protection Agency's Energy Star Program			1342 1☐	
h. U.S. Environmental Protection Agency's Green Lights Program			1343 1☐	
i. U.S. Department of Energy's Motor Challenge Program			1344 1☐	
j. Equipment installation or retrofit for the **primary** purpose of improving energy efficiency affecting:				
(1) Steam production (e.g., boilers, burners)	1312 1☐	13131 1☐	13132 1☐	13133 1☐
(2) Direct/indirect process heating	1314 1☐	13151 1☐	13152 1☐	13153 1☐
(3) Direct process cooling, refrigeration	1316 1☐	13171 1☐	13172 1☐	13173 1☐
(4) Direct machine drive (e.g., adjustable-speed drives, motors, pumps) excluding Motor Challenge Program	1318 1☐	13191 1☐	13192 1☐	13193 1☐
(5) Facility heating, ventilation, and air conditioning, excluding Energy Star Program	1320 1☐	13211 1☐	13212 1☐	13213 1☐
(6) Facility lighting, excluding Green Lights Program	1322 1☐	13231 1☐	13232 1☐	13233 1☐
k. Equipment installation or retrofit for the **primary** purpose of using a different energy source (e.g., electrification). *(Exclude modifications made principally for energy efficiency)*	1324 1☐	13251 1☐	13252 1☐	13253 1☐
l. Other, including other government programs *(Specify)*				
1396 (1) _____	1330 1☐	1331 1☐	1332 1☐	1333 1☐
1397 (2) _____	1334 1☐	1335 1☐	1336 1☐	1337 1☐

All establishments are to complete Parts C1, C2, and C3.

Part C1 – GENERAL TECHNOLOGIES

Mark (X) all technologies that were in place at your establishment during 1994.

1401 1☐ Computer control of building environment (e.g., space-heating equipment, cooling equipment, lights)

1402 1☐ Computer control of processes or major energy-using equipment (e.g., boilers, furnaces, conveyers) used in the manufacturing process

1403 1☐ Waste heat recovery

1404 1☐ Adjustable-speed motors

14041 1☐ None of the above

Part C2 – COGENERATION TECHNOLOGIES

Mark (X) all technologies that were in place at your establishment during 1994.

14042 1☐ Steam turbines supplied by either conventional or fluidized bed boilers

14043 1☐ Conventional combustion turbines with heat recovery

14044 1☐ Combined-cycle combustion turbines

14045 1☐ Internal combustion engines with heat recovery

14046 1☐ Steam turbines supplied by heat recovered from high-temperature processes

14047 1☐ None of the above

Part C3 – ONE-TIME COLLECTION OF ESTABLISHMENT ACTIVITIES

Your CORPORATE energy manager has the option of completing this part for EACH individual establishment site. Otherwise, your energy manager at the establishment site is the best source for this information. Please respond using best-guess estimates from respondents' own knowledge. A search for these items is not necessary.

1. What is your establishment's most commonly used method of evaluation for purchases of, and modifications to, electric motor systems?
Mark (X) only one box.

1601 1☐ An evaluation is based primarily on all expected costs over the projected lifetime of the system.

2☐ An evaluation is based primarily on initial purchase prices of competing systems.

3☐ Another type of evaluation is used.

4☐ An evaluation is done but not certain **how** it is done.

5☐ No evaluation is done.

6☐ Not certain **if** any type of evaluation is done.

2. What kind of listing do you keep regarding your operating electric motors at this establishment?
Mark (X) only one box.

1602 1☐ A listing is kept of **all** operating electric motors at this establishment – *Go to line 3 below.*

2☐ A listing is kept of **some** operating electric motors at this establishment – *Go to line 3 below.*

3☐ No listing at all is kept – *Skip to page 12.*

4☐ The existence of a listing is not known – *Skip to page 12.*

3. Does your listing contain information on age of your motors? ***Mark (X) only one box.***

1603 1☐ Yes 2☐ No 3☐ Don't know

4. Does your listing contain information on horsepower (wattage) of your motors? ***Mark (X) only one box.***

1604 1☐ Yes 2☐ No 3☐ Don't know

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Section VI – REMARKS

Please use this space or attach a separate sheet for any explanations that may be essential in understanding your reported data.

1599

Section VII – CERTIFICATION

Name of person to contact regarding this report – *(Print or type)*		Telephone number →	Area code	Number	Extension
Address – Number and street	City		State	ZIP Code	

Period covered by this report: →	From			To		
	Month	Day	Year	Month	Day	Year

Signature of authorized person	Internet number or E-Mail (if available)	Date
	_____ @ _____	

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PLEASE PHOTOCOPY THIS FORM FOR YOUR RECORDS

FORM EIA-846B (4-13-95)

1994 Manufacturing Energy Consumption Survey
Form EIA-846C

OMB No. 1905-0169: Approval Expires 04/30/98

Form **EIA-846C**
(4-13-95)

U.S. Department of Commerce
Bureau of the Census
Acting as Collecting and
Compiling Agent For

UNITED STATES DEPARTMENT
OF ENERGY
ENERGY INFORMATION
ADMINISTRATION

Lumber and Wood Products; Paper and Allied Products; Chemicals and Allied Products; Petroleum and Coal products; Selected Primary Metal Industries

1994 MANUFACTURING ENERGY CONSUMPTION SURVEY

Public reporting burden for this collection of information is estimated to average 9 hours per response, including the time of reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Energy Information Administration, Office of Statistical Standards, EI-73, 1707 H-Street, NW, Washington, DC 20585; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

In correspondence pertaining to this report, please refer to this Census File Number (CFN).

Please correct errors in name, address, and ZIP Code. ENTER street and number if not shown.

PLEASE COMPLETE THIS FORM AND RETURN TO

BUREAU OF THE CENSUS
1201 East 10th Street
Jeffersonville, IN 47132-0001

DUE DATE:

If you cannot file by the due date, a time extension request should be sent to the above address. Please include your 11-digit Census File Number (CFN).

NOTE

Please read the enclosed instructions before filling out this form. Complete each item. If you have any questions, call 1-800-866-6327.

The Manufacturing Energy Consumption Survey – The Manufacturing Energy Consumption Survey (MECS) was designed, and is being sponsored, by the Energy Information Administration (EIA) of the U.S. Department of Energy (DOE). The survey is administered and compiled by the U.S. Bureau of the Census for the EIA. The previous MECS was conducted covering the year 1991.

Mandatory Requirement – This survey is **mandatory** under the Federal Energy Administration Act of 1974, Pub. L. No. 93-275, and under Title 3, Subtitle B, of the Omnibus Budget Reconciliation Act of 1986, Pub. L. No. 99-509, as amended by Title 1, Subtitle G, of the Energy Policy Act of 1992, Pub. L. No. 102-486. Failure to respond may result in criminal fines, civil penalties, and other sanctions as provided by law. Response is required by law from establishments included in the MECS sample and receiving the MECS form.

Confidentiality of Data – Under Section 9 of Title 13, U.S. Code, your report to the Census Bureau is **confidential**. It may be seen only by sworn Census Bureau employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Purpose of This Survey – The MECS will collect data on energy consumption and usage patterns for the manufacturing sector of the U.S. economy. In addition, it will measure the short-term (within 30 days) capability of your establishment to substitute fuels in place of those actually consumed in 1994. The information obtained from the MECS forms will be used to publish aggregate statistics on the following: consumption of energy for fuel and nonfuel uses, energy characteristics of buildings in the manufacturing sector, energy consumption by end use, technologies currently in use by U.S. manufacturers, energy prices, electricity generation onsite, fuel-switching capabilities, and participation in energy-management activities. This information will be used by the DOE to implement policy plans effectively as well as to assist utilities in more accurate demand forecasting and resource planning.

Form EIA-846C – This form is addressed to establishments operating primarily in the manufacturing sector in industries as defined by the 1987 Standard Industrial Classification (SIC) Manual. Industries sampled for this form are in SIC 24, 26, 28, 29, (excluding 2911), 3312, 3321, 3331, and 3339. **Government-owned establishments that are privately operated are NOT exempt from completing this survey.**

Due Date – The questionnaire should be returned no later than the due date specified above. If you need additional time, please call our processing office on 1-800-528-3049. Please use the enclosed return envelope. If the envelope has been misplaced, return the completed questionnaire to us at the above address.

1994 Manufacturing Energy Consumption Survey
Form EIA-846C

A. General Instructions

1. No entries are required in the shaded areas. All shaded areas are to be left blank.

2. Use the indicated units specified on the questionnaire for reporting all quantities. For example:

Electricity – Thousands of kilowatthours (1,000 kWh)
Steam – Millions of British thermal units (Million Btu)
Industrial hot water – Millions of Btu (Million Btu)
Coal – Short Tons
Natural gas – Thousands of cubic feet (1,000 cu. ft.)
Hydrogen – Millions of Btu (Million Btu)
Diesel fuel and distillate fuel oil – Barrels
Liquid petroleum gas – Gallons
Natural gas liquids – Gallons

If you need conversion factors in order to report in the specified units, refer to the detailed instructions for Sections I and II.

3. Do not consolidate establishments. The reporting boundaries for your establishment should correspond to those used in the Annual Survey of Manufactures and/or the Census of Manufactures.

4. If you do not maintain book records for particular items, please use carefully prepared estimates.

5. Please refer to the accompanying instruction guide as you answer the questions.

B. Operational Status

IF FORM MA-1000 (ANNUAL SURVEY OF MANUFACTURES) WAS COMPLETED FOR THIS ESTABLISHMENT IN 1994, SKIP THIS ITEM AND GO TO SECTION I – NONCOMBUSTIBLE ENERGY SOURCES. Otherwise, please **complete this item** fully to avoid unnecessary correspondence. Mark the box (1–5) that is applicable to the operation of this establishment at the end of 1994. If you check box 3, 4, or 5, please fill in the month, day, and year (numbers only, please) that the action became effective. If box 4 or 5 is checked, also supply the name and address (or location) of the new or former owner or operating company.

If the ownership of this establishment changed in 1994, please make certain that the date of the change in ownership is recorded in this item.

1. If you sold the establishment during the year, complete all sections of the report form for activities that occurred in 1994 **prior** to the sale.

2. If you bought the establishment during the year, complete all sections of the report form for activities that occurred in 1994 **after** the sale.

Mark (X) only ONE box which best describes this establishment at the end of 1994. If this establishment was not in operation for the full year during 1994, please complete this form for the part of the year that you were in operation.

		Date (Numbers Only)		
		Month	Day	Year
0001	1 ☐ In operation			
	2 ☐ Temporarily or seasonally inactive			
	3 ☐ Ceased operation *(Provide date at right)*			
	4 ☐ Sold or leased TO another operator *(Provide date at right AND enter name, etc., below)*			
	5 ☐ Acquired or leased FROM another operator *(Provide date at right AND enter name, etc., below)*			

Name of new/former owner or operator	Employer Identification (EI) Number (9 digits)

Number and street	City	State	ZIP Code

CONTINUE WITH SECTION I ON PAGE 3

1994 Manufacturing Energy Consumption Survey
Form EIA-846C

Section I – NONCOMBUSTIBLE ENERGY SOURCES

Item Description (1)	IF ZERO, PLEASE ENTER ZERO (0) IN EACH BOX		
	Electricity 10 (2)	Steam 11 (3)	Industrial Hot Water 12 (4)
1a. During 1994, what amount of each energy source was **purchased from utilities** by this establishment and delivered to this establishment site? *(DO NOT include purchases by a central purchasing agent, quantities delivered from other establishments of your company, or quantities for which payment was made in-kind.)* 01	Kilowatthours Mil Thou kWh	Million Btu	Million Btu
1b. What was the total expenditure, including all applicable taxes, for the purchased energy source(s) reported on line 1a? 02	Dollars Mil Thou Dol	Dollars Mil Thou Dol	Dollars Mil Thou Dol
2a. During 1994, what amount of electricity and steam was **purchased from nonutility suppliers** by this establishment and delivered to this establishment site? 03	Kilowatthours Mil Thou kWh	Million Btu	
2b. What was the total expenditure, including all applicable taxes, for the purchased energy source(s) reported on line 2a? 04	Dollars Mil Thou Dol	Dollars Mil Thou Dol	
3. During 1994, what amount of each energy source was **transferred** from outside establishments and delivered to this establishment site? *(DO NOT include the purchases reported in lines 1a and 2a. DO include quantities received from a central purchasing agent, quantities delivered from other establishments of your company, and quantities for which payment was made in-kind.)* 05	Kilowatthours Mil Thou kWh	Million Btu	Million Btu
4. **TOTAL QUANTITIES OF ELECTRICITY RECEIVED ONSITE** *(Sum of lines 1a, 2a, and 3.)* **NOTE** – Copy this quantity for electricity to Section III – FUEL SWITCHING, part A, line 1a, column (2) on page 6. 06			
5. During 1994, how much electricity was generated on this establishment site by cogeneration? *(Include ALL cogeneration facilities at this establishment site.)* 07			
6. During 1994, how much of each energy source was generated onsite from each of the following:		Million Btu	Million Btu
a. Solar power 081			
b. Wind power 082			
c. Hydropower 083			
d. Geothermal power 084			
7. During 1994, how much electricity was generated onsite by processes other than those covered on lines 5, 6a, 6b, 6c, and 6d? 09			
8. **TOTAL ONSITE GENERATION OF ELECTRICITY** *(Sum of lines 5, 6a, 6b, 6c, 6d, and 7.)* 10			
9. During 1994, how much electricity was sold or transferred to utilities? 11			
10. During 1994, how much of each energy source was sold or transferred to any establishments other than utilities? 12		Million Btu	Million Btu
11. **TOTAL ELECTRICITY SALES AND TRANSFERS OFFSITE** *(Line 9 plus line 10.)* 13			
12. **TOTAL ONSITE CONSUMPTION OF ELECTRICITY.** *(Line 4 plus line 8 minus line 11.)* **NOTE** – Copy this quantity for electricity consumption to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, line 1, column (2) *on page 9.* 14			

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Form EIA-846C

Section II – COMBUSTIBLE ENERGY SOURCES

Energy Sources	Census Use Only	Units used for reporting quantities	Energy sources **received** onsite in 1994: Quantity purchased by and delivered to this establishment	Total expenditures, including taxes and delivery charges, of the quantity in column (4)			Total quantity of transfers in and central purchases
				Mil	Thou	Dol	
(1)	(2)	(3)	01 (4)	02 (5)			03 (6)
A. SOLIDS							
1. Anthracite	40	Short Tons					
2. Bituminous and subbituminous coal	41	Short Tons					
3. Lignite	42	Short Tons					
4. Total coal *(Sum of lines A1, A2, and A3)*	46	Short Tons					
5. Breeze	44	Short Tons					
6. Coal coke	43	Short Tons					
7. Fluid catalytic cracking unit coke	77	Barrels					
8. Marketable petroleum coke – unrefined or green	78	Barrels					
9. Marketable petroleum coke – calcined	79	Barrels					
10. Agricultural waste (e.g., bagasse, rice hulls, nut shells, orchard prunings)	90	Million Btu					
11. Wood harvested directly from trees (e.g., roundwood, wood chips, tree bark)	83	Million Btu					
12. Wood residues and byproducts from mill processing (e.g., sawdust, shavings, slabs, bark)	84	Million Btu					
13. Wood/paper-related refuse (e.g., scrap, wastepaper, wood pallets, packing materials)	72	Million Btu					
14. Other solids *(Specify solid. Specify units, if **not** million Btu)* 9198	91	Million Btu					
B. GASES (exclude oxygen, nitrogen, and inert gases)							*See Pg. 10, Part B.*
1. Total natural gas *(Include well production onsite in col. (7))*	30	1,000 cu. ft.					
In the following parts 1a–1e, please classify natural gas purchases which are reported in line 1. **UTILITY/LDC** **1a.** Natural gas purchased directly from your utilities/local distribution companies (LDC) at a **firm** service rate	48	1,000 cu. ft.					
1b. Natural gas purchased directly from LDC at an **interruptible** service rate	49	1,000 cu. ft.					
1c. Natural gas purchased directly from LDC at **other** service rates *(Specify type of service rate)* 5098	50	1,000 cu. ft.					
Did this establishment purchase natural gas in 1994 from sources other than utilities/LDC? 50981 1 ☐ Yes – *Go to Line 1d.* 2 ☐ No – *Skip to line 2, Acetylene, on this page.* **NONUTILITY/NON-LDC** **1d.** Natural gas purchased from non-LDC sources (e.g., producers, brokers, marketers, and other non-LDC sources including fees for transportation and storage)	51	1,000 cu. ft.					
1e. Of the expenditures given in line 1d, please provide the following: *(Please note that the sum of lines e(1), e(2), and e(3) should equal line 1d.)* **(1)** Cost of supplies *(Include brokers' fees, suppliers' fees)*	52						
(2) Cost of transportation – ***Please mark (X) all the service rates that apply.*** 53021 1 ☐ Firm (e.g., no-notice, bundled firm) 53022 1 ☐ Interruptible 53023 1 ☐ Don't know 53024 1 ☐ Other/Released capacity *(Specify type of service rate)* 5398	53						
(3) Other costs (e.g., storage) *(Specify)* 5498	54						
2. Acetylene	64	Cu. Ft.					
3. Blast furnace gas	60	Million Btu					
4. Coke oven gas	61	Million Btu					
5. Hydrogen	63	Million Btu					
6. Waste and byproduct gases (e.g., refinery gas, vent gas, plant gas, still gas)	62	Million Btu					
7. Other gases *(Specify gas. Specify units, if **not** million Btu)* 9398	93	Million Btu					

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Section II – COMBUSTIBLE ENERGY SOURCES – Continued

Energy sources **produced** *onsite in 1994*		*Energy sources* **consumed** *onsite in 1994*				
Quantity produced onsite	**Does the entry in column (7) represent the product or byproduct of *another* energy source consumed onsite?**	**Quantity consumed as a fuel**	**Quantity consumed for *all nonfuel* purposes**	**Quantity shipped offsite to other *establishments* in 1994**	**Total design storage capacity located onsite as of 12/31/94**	**Census Use Only**
04 (7)	05 (8)	06 (9)	07 (10)	08 (11)	09 (12)	(13)
						40
						41
						42
		Copy to pg. 6, line 1a & pg. 9, line 1				46
	1 ☐ Yes 2 ☐ No					44
	1 ☐ Yes 2 ☐ No					43
						77
	1 ☐ Yes 2 ☐ No					78
	1 ☐ Yes 2 ☐ No					79
						90
						83
						84
						72
	1 ☐ Yes 2 ☐ No					91
		Copy to pg. 7, line 1a & pg. 9, line 1				30
						48
						49
						50
						51
						52
						53
						54
						64
						60
						61
	1 ☐ Yes 2 ☐ No					63
	1 ☐ Yes 2 ☐ No					62
	1 ☐ Yes 2 ☐ No					93

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Section II – COMBUSTIBLE ENERGY SOURCES – Continued

Energy Sources	Census Use Only	Units used for reporting quantities	Energy sources **received** onsite in 1994: Quantity purchased by and delivered to this establishment	Total expenditures, including taxes and delivery charges, of the quantity in column (4) (5) Mil	Thou	Dol	Total quantity of transfers in and central purchases
(1)	(2)	(3)	01 (4)				03 (6)
C. LIQUIDS *(42 gallons = 1 barrel)*							
1. Butane as liquid petroleum gas (LPG) or natural gas liquids (NGL)	36	Gallons					
2. Ethane as liquid petroleum gas (LPG) or natural gas liquids (NGL)	37	Gallons					
3. Propane as liquid petroleum gas (LPG) or natural gas liquids (NGL)	38	Gallons					
4. Mixtures of ethane, butane, and propane	34	Gallons					
5. Other LPG and NGL (e.g., butylene, ethylene, and propylene)	35	Gallons					
6. Total LPG and NGL *(Sum of lines C1, C2, C3, C4, and C5)*	24	Gallons					
7. Diesel fuel, excluding highway usage	28	Barrels					
8. Distillate fuel oil (numbers 1, 2, and 4 fuel oils – ***exclude*** *diesel fuel reported on line C7 above.)*	29	Barrels					
9. Total diesel fuel and distillate fuel oil *(Sum of lines C7 and C8)*	22	Barrels					
10. Kerosene	27	Barrels					
11. Motor gasoline, excluding highway usage	23	Gallons					
12. Pulping or black liquor	73	Million Btu					
13. Residual fuel oil (numbers 5, 6, Navy Special, and Bunker C)	21	Barrels					
14. Waste oils and tars	71	Million Btu					
15. Other liquids *(Specify liquid. Specify units, if **not** million Btu)* 9598	95	Million Btu					

Section III – FUEL SWITCHING

A. BASIC CAPABILITY – The purpose of this part is to determine this establishment's potential to switch from one type of fuel to another, regardless of whether or not any fuel switching was actually done.

Item Description (1)	Total Electricity Received 10 (2)	Total Coal Excluding Coal Coke and Breeze 46 (3)
	Copy from Section I, line 4, column (2)	*Copy from Section II, part A, line 4, column (9)*
1a. Quantity Consumed – Copy data into line 1a as instructed in the column headings. 50	1,000 Kilowatthours	Short Tons
1b. Does line 1a contain any nonzero entries? 10501 1 ☐ Yes – *Answer lines 2 and 3 for that column.* 2 ☐ No – *Skip to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE on page 9.*		
Do not consider differences in energy prices when estimating amounts. **2. Quantity Nonswitchable** – Enter the amount of the quantity in line 1a that could NOT have been replaced within 30 days by another energy source in 1994. 51	1,000 Kilowatthours	Short Tons
3a. Quantity Switchable – Subtract line 2 from line 1a and enter the results. This represents the total quantity of energy consumption that COULD HAVE BEEN replaced within 30 days by one or more alternative energy sources in 1994. 52	1,000 Kilowatthours	Short Tons
3b. Does line 3a contain any nonzero entries? 10521 1 ☐ Yes – *Answer lines 4 through 11, as appropriate, for that column.* 2 ☐ No – *Skip to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE on page 9.*		
PLEASE COMPLETE ONE COLUMN BEFORE STARTING ANOTHER		
4. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by electricity? 53		Short Tons
5. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by coal, excluding coal coke and breeze? 67	1,000 Kilowatthours	
6. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by total coal coke and breeze, excluding coal included in line 5 above? 69	1,000 Kilowatthours	
7. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by natural gas from any supplier(s)? 57	1,000 Kilowatthours	Short Tons
8. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by total diesel fuel and distillate fuel oil? 59	1,000 Kilowatthours	Short Tons
9. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by total LPG and NGL? 61	1,000 Kilowatthours	Short Tons
10. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by residual fuel oil? 63	1,000 Kilowatthours	Short Tons
11. Of the amount shown in line 3a, what is the maximum amount that could have been replaced by any other energy source? *(Specify the energy source)* 1099 65	1,000 Kilowatthours	Short Tons

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Section II – COMBUSTIBLE ENERGY SOURCES – Continued

Energy sources **produced** onsite in 1994		Energy sources **consumed** onsite in 1994				
Quantity produced onsite 04 (7)	**Does the entry in column (7) represent the product or byproduct of another energy source *consumed onsite?*** 05 (8)	**Quantity consumed as a fuel** 06 (9)	**Quantity consumed for all nonfuel purposes** 07 (10)	**Quantity shipped offsite to other establishments in 1994** 08 (11)	**Total design storage capacity located onsite as of 12/31/94** 09 (12)	**Census Use Only** (13)
						36
						37
						38
						34
						35
		Copy to line 1a below & on pg. 9				24
						28
						29
		Copy to line 1a below & on pg. 9				22
	1 ☐ Yes 2 ☐ No					27
						23
						73
		Copy to line 1a below & on pg. 9				21
	1 ☐ Yes 2 ☐ No					71
						95

Section III – FUEL SWITCHING – Continued

Total Natural Gas 30 (4)	**Total Diesel Fuel and Distillate Fuel Oil** 22 (5)	**Total LPG and NGL** 24 (6)	**Residual Fuel Oil** 21 (7)
Copy from Section II, part B, line 1, column (9) 1,000 cu. ft.	*Copy from Section II, part C, line 9, column (9)* Barrels	*Copy from Section II, part C, line 6, column (9)* Gallons	*Copy from Section II, part C, line 13, column (9)* Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
PLEASE COMPLETE ONE COLUMN BEFORE STARTING ANOTHER			
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
1,000 cu. ft.	Barrels	Gallons	Barrels
	Barrels	Gallons	*Copy to line 1a on page 8* Barrels
1,000 cu. ft.		Gallons	Barrels
1,000 cu. ft.	Barrels		Barrels
Copy to line 1a on page 8 1,000 cu. ft.	Barrels	Gallons	
1,000 cu. ft.	Barrels	Gallons	Barrels

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Section III – FUEL SWITCHING – Continued

B. SWITCHING BETWEEN NATURAL GAS AND RESIDUAL FUEL OIL

The purpose of this part is to determine, for this establishment, if any actual switching took place between two specific fuels, namely natural gas and residual fuel oil; if so, the primary reasons for the switching and at what price difference would switching be a viable option.

Item Description (1)	Total Natural Gas 30 (2)	Residual Fuel Oil 21 (3)
	Copy from Section III, part A, line 10, column (4) 1,000 cu. ft.	*Copy from Section III, part A, line 7, column (7)* Barrels
1a. Replaceable amount – Copy data into line 1a as instructed in the column headings. 90		
1b. Does line 1a contain any nonzero entries?		
1501 1 ☐ Yes – *Answer lines 2a, 2b, and 2c, as appropriate, for that column.* 2 ☐ No – *Skip to Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE, on page 9.*		
2. At any time during the full year 1994, did this establishment . . .		
2a. SWITCH FROM natural gas TO residual fuel oil?		
1502 1 ☐ Yes 2 ☐ No		
2b. SWITCH FROM residual fuel oil TO natural gas?		
1503 1 ☐ Yes 2 ☐ No		
2c. Do lines 2a or 2b contain any "YES" responses?		
1504 1 ☐ Yes – *Answer lines 3 and 4, as appropriate, for that column.* 2 ☐ No – *Skip to line 4 on this page.*		
3. What is the primary reason(s) that this establishment SWITCHED FROM this fuel TO the other fuel?	**Total Natural Gas** *Mark (X) all that apply*	**Residual Fuel Oil** *Mark (X) all that apply*
a. Supply shortage or curtailment of this fuel	1505 1 ☐	1506 1 ☐
b. Down-time caused by maintenance	1507 1 ☐	1508 1 ☐
c. Less expensive substitute	1509 1 ☐	1510 1 ☐
d. Environmental restriction on emissions or waste	1511 1 ☐	1512 1 ☐
e. Other *(Specify and mark appropriate box(es))*		
15121 (1) _____	1513 1 ☐	1514 1 ☐
15122 (2) _____	1515 1 ☐	1516 1 ☐
Please answer line 4 as appropriate for the columns with nonzero entries in line 1a.	**Total Natural Gas**	**Residual Fuel Oil**
4. Regardless of whether or not your establishment actually SWITCHED FROM this fuel during 1994, or did so because of a less expensive substitute, is there a LOWEST PERCENTAGE of price difference of the less expensive substitute that would cause your establishment to SWITCH FROM this fuel? The formula for percentage of price difference is: Percentage of Price Difference = $\frac{(PC - PA)}{PC} \times 100\%$ Where PC = Price per British thermal unit of current fuel, PA = Price per British thermal unit of alternative fuel	*Mark (X) only one box* 1517	*Mark (X) only one box* 1518
a. Would not switch regardless of percentage of price difference	1 ☐	1 ☐
b. Would switch at price difference of 1 – 5 percent	2 ☐	2 ☐
c. Would switch at price difference of 6 – 10 percent	3 ☐	3 ☐
d. Would switch at price difference of 11 – 15 percent	4 ☐	4 ☐
e. Would switch at price difference of 16 – 20 percent	5 ☐	5 ☐
f. Would switch at price difference of 21 – 30 percent	6 ☐	6 ☐
g. Would switch at price difference of 31 – 40 percent	7 ☐	7 ☐
h. Would switch at price difference of 41 – 50 percent	8 ☐	8 ☐
i. Would switch at price difference over 50 percent	9 ☐	9 ☐
j. Reasonable estimate cannot be provided	10 ☐	10 ☐
k. Would switch to the **more expensive substitute** if price premium were reasonable	11 ☐	11 ☐

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Section IV – ESTIMATED PERCENT CONSUMPTION BY END USE

End Uses	Total Electricity Consumption	Total Coal Excluding Coal Coke and Breeze	Total Natural Gas	Total Diesel Fuel and Distillate Fuel Oil	Total LPG and NGL	Residual Fuel Oil
(1)	10 (2)	46 (3)	30 (4)	22 (5)	24 (6)	21 (7)
	Copy from Section I, line 12, column (2)	*Copy from Section II, part A, line 4, column (9)*	*Copy from Section II, part B, line 1, column (9)*	*Copy from Section II, part C, line 9, column (9)*	*Copy from Section II, part C, line 6, column (9)*	*Copy from Section II, part C, line 13, column (9)*
	1,000 kWh	Short Tons	1,000 cu. ft.	Barrels	Gallons	Barrels
1. Quantity consumed – Copy data into line 1 as instructed in the column headings. 70						

Energy sources can be consumed in three major end-use classes: indirect use (boiler fuel), direct process use, and direct nonprocess use. **Indirect use is the transformation of energy to another usable energy source, as in a boiler for example.** Direct process use includes usage in motors, ovens, kilns, and strip heaters. Direct nonprocess use includes usage for facility lighting and conditioning equipment.

For each energy source, the sum of the elements in these three classes equals 100 percent.

For columns with nonzero entries in line 1 above, please report the approximate percentage of each energy source used for the purposes listed below.

PLEASE COMPLETE ONE COLUMN BEFORE STARTING ANOTHER.
REASONABLE APPROXIMATIONS ARE ACCEPTABLE – SEE INSTRUCTIONS.

End Uses	Total Electricity Consumption	Total Coal Excluding Coal Coke and Breeze	Total Natural Gas	Total Diesel Fuel and Distillate Fuel Oil	Total LPG and NGL	Residual Fuel Oil
(1)	10 (2)	46 (3)	30 (4)	22 (5)	24 (6)	21 (7)
INDIRECT USES – BOILERS						
2. Boiler fuel (e.g., fuel for boilers, gas turbines) 71	%	%	%	%	%	%
DIRECT USES – PROCESS						
3. Process heating (e.g., kilns, furnaces, ovens, strip heaters) 72	%	%	%	%	%	%
4. Process cooling and refrigeration 73	%	%	%	%	%	%
5. Machine drive (e.g., motors, pumps, etc. associated with manufacturing process equipment) 74	%	%	%	%	%	%
6. Electro-chemical processes (e.g., reduction process) 75	%					
7. Other *(Please specify any other uses of energy)* 10761 76	%	%	%	%	%	%
DIRECT USES – NONPROCESS						
8. Facility heating, ventilation, and air conditioning 77	%	%	%	%	%	%
9. Facility lighting 78	%					
10. Facility support other than lines 8 and 9 above (e.g., cooking, water heating, office equipment) 79	%	%	%	%	%	%
11. Onsite transportation, excluding highway usage 80	%		%	%	%	
12. Conventional electricity generation 81		%	%	%	%	%
13. Other *(Please specify any other uses of energy)* 10821 82	%	%	%	%	%	%
TOTAL for all purposes	100%	100%	100%	100%	100%	100%

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Section V – ESTABLISHMENT CHECKLIST

This section is divided into eight parts. All establishments are to complete Parts A, B, C1, C2, and C3.

Part A – ESTIMATED SQUARE FOOTAGE OF BUILDINGS

1. What was the **approximate** total enclosed square footage of the buildings located on this establishment site as of December 31, 1994?

1301

Square Feet		
Mil	Thou	Feet

2. Of the square footage indicated above, what percentage had controlled heating or cooling, using equipment designed to modify the internal building temperature, during 1994?

Please provide the approximate percentage to the nearest multiple of 5 percent.

1302 _____ %

Part B – ENERGY PURCHASING AND ENERGY-MANAGEMENT ACTIVITIES

1. Please refer to Section II, Part B, line 1, column (6) on page 4 for the quantity of **total natural gas that was transferred in and centrally purchased.**

Does column (6) of line B1 on page 4 contain a nonzero entry?

30031
1 ☐ Yes – *Answer lines 1a and 1b below.*
2 ☐ No – *Skip to line 2 below.*

1a. Enter the total expenditures, including all applicable taxes and delivery charges, for the quantity of **total natural gas that was transferred in and centrally purchased.**

If no expenditure was made, please enter zero.

30032

Mil	Thou	Dol

1b. What is the best description of the expenditure amount in line 1a above?

Mark (X) only one box.

30033
1 ☐ Market price
2 ☐ Internal price based on this establishment's accounting principles
3 ☐ Don't know
4 ☐ Other *(Specify)*

30034 _____

2. At any time between January 1, 1992 and December 31, 1994, did your **electric utility** sponsor any type of programs designed for the purposes listed below, regardless of whether or not your establishment participated:

- to lower your energy consumption or costs, or
- to shift the timing of your electricity demand, or
- to promote your use of electricity instead of another energy source?

(Often these programs are referred to as Demand-Side Management (DSM))

Mark (X) only one box.

1303
1 ☐ Yes
2 ☐ No
3 ☐ Don't know

3. At any time between January 1, 1992 and December 31, 1994, did your **natural gas utility** sponsor any type of programs designed for the purposes listed below, regardless of whether or not your establishment participated:

- to lower your energy consumption or costs, or
- to shift the timing of your natural gas demand, or
- to promote your use of natural gas instead of another energy source?

(Often these programs are referred to as Demand-Side Management (DSM))

Mark (X) only one box.

1304
1 ☐ Yes
2 ☐ No
3 ☐ Don't know

4a. For the period between January 1, 1992 and December 31, 1994, was the natural gas utility/local distribution company (LDC) for your establishment the **same entity** as your electric utility?

Mark (X) only one box.

1305
1 ☐ Yes
2 ☐ No
3 ☐ Don't know

4b. At any time between January 1, 1992 and December 31, 1994, was your establishment involved in any type of energy-management activity?

13051
1 ☐ Yes – *Go to line 5 on page 11.*
2 ☐ No – *Skip to Part C1 on page 11.*

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Section V – ESTABLISHMENT CHECKLIST – Continued

Part B – ENERGY PURCHASING AND ENERGY-MANAGEMENT ACTIVITIES – Continued

5. In what type(s) of energy-management activity(ies) was your establishment involved between January 1, 1992 and December 31, 1994?
Mark (X) all that apply. Note that it is possible to have marks in all four columns for any of the activities listed.

Energy-Management Activities (1)	Involvement Through Electric Utility Sponsorship (2)	Involvement Through Self-Sponsorship (3)	Involvement Through Federal, State, Local Government Sponsorship, Excluding Utilities (4)	Involvement Through Other (3rd Party) Sponsorship (5)
a. Energy audits	1306 1☐	13071 1☐	13072 1☐	13073 1☐
b. Electricity load control	1308 1☐	13091 1☐	13092 1☐	13093 1☐
c. Special rate schedule (e.g., interruptible or time-of-use)	1310 1☐			
d. Standby generation program	1326 1☐	13271 1☐	13272 1☐	13273 1☐
e. Equipment rebates	1328 1☐	13291 1☐	13292 1☐	13293 1☐
f. Power factor correction or improvement	1338 1☐	1339 1☐	1340 1☐	1341 1☐
g. U.S. Environmental Protection Agency's Energy Star Program			1342 1☐	
h. U.S. Environmental Protection Agency's Green Lights Program			1343 1☐	
i. U.S. Department of Energy's Motor Challenge Program			1344 1☐	
j. Equipment installation or retrofit for the **primary** purpose of improving energy efficiency affecting:				
(1) Steam production (e.g., boilers, burners)	1312 1☐	13131 1☐	13132 1☐	13133 1☐
(2) Direct/indirect process heating	1314 1☐	13151 1☐	13152 1☐	13153 1☐
(3) Direct process cooling, refrigeration	1316 1☐	13171 1☐	13172 1☐	13173 1☐
(4) Direct machine drive (e.g., adjustable-speed drives, motors, pumps) excluding Motor Challenge Program	1318 1☐	13191 1☐	13192 1☐	13193 1☐
(5) Facility heating, ventilation, and air conditioning, excluding Energy Star Program	1320 1☐	13211 1☐	13212 1☐	13213 1☐
(6) Facility lighting, excluding Green Lights Program	1322 1☐	13231 1☐	13232 1☐	13233 1☐
k. Equipment installation or retrofit for the **primary** purpose of using a different energy source (e.g., electrification). *(Exclude modifications made principally for energy efficiency)*	1324 1☐	13251 1☐	13252 1☐	13253 1☐
l. Other, including other government programs *(Specify)*				
1396 (1)	1330 1☐	1331 1☐	1332 1☐	1333 1☐
1397 (2)	1334 1☐	1335 1☐	1336 1☐	1337 1☐

All establishments are to complete Parts C1, C2, and C3.

Part C1 – GENERAL TECHNOLOGIES

Mark (X) all technologies that were in place at your establishment during 1994.

1401 1☐ Computer control of building environment (e.g., space-heating equipment, cooling equipment, lights)
1402 1☐ Computer control of processes or major energy-using equipment (e.g., boilers, furnaces, conveyers) used in the manufacturing process
1403 1☐ Waste heat recovery
1404 1☐ Adjustable-speed motors
14041 1☐ None of the above

Part C2 – COGENERATION TECHNOLOGIES

Mark (X) all technologies that were in place at your establishment during 1994.

14042 1☐ Steam turbines supplied by either conventional or fluidized bed boilers
14043 1☐ Conventional combustion turbines with heat recovery
14044 1☐ Combined-cycle combustion turbines
14045 1☐ Internal combustion engines with heat recovery
14046 1☐ Steam turbines supplied by heat recovered from high-temperature processes
14047 1☐ None of the above

Part C3 – ONE-TIME COLLECTION OF ESTABLISHMENT ACTIVITIES

Your CORPORATE energy manager has the option of completing this part for EACH individual establishment site. Otherwise, your energy manager at the establishment site is the best source for this information. Please respond using best-guess estimates from respondents' own knowledge. A search for these items is not necessary.

1. What is your establishment's most commonly used method of evaluation for purchases of, and modifications to, electric motor systems?
Mark (X) only one box.

1601 1☐ An evaluation is based primarily on all expected costs over the projected lifetime of the system.
2☐ An evaluation is based primarily on initial purchase prices of competing systems.
3☐ Another type of evaluation is used.
4☐ An evaluation is done but not certain **how** it is done.
5☐ No evaluation is done.
6☐ Not certain **if** any type of evaluation is done.

2. What kind of listing do you keep regarding your operating electric motors at this establishment?
Mark (X) only one box.

1602 1☐ A listing is kept of **all** operating electric motors at this establishment – *Go to line 3 below.*
2☐ A listing is kept of **some** operating electric motors at this establishment – *Go to line 3 below.*
3☐ No listing at all is kept – *Skip to page 12.*
4☐ The existence of a listing is not known – *Skip to page 12.*

3. Does your listing contain information on age of your motors? ***Mark (X) only one box.***
1603 1☐ Yes 2☐ No 3☐ Don't know

4. Does your listing contain information on horsepower (wattage) of your motors? ***Mark (X) only one box.***
1604 1☐ Yes 2☐ No 3☐ Don't know

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Section V – ESTABLISHMENT CHECKLIST – Continued

There is one additional part to complete for specific SIC codes. This establishment's four-digit SIC code is included as part of the address mailing label on page 1 of this survey.

If the first two digits of your establishment's SIC code are:

"26" (paper industries), then complete Part D.

or "28" (chemical industries), then complete Part E.

or "33" (primary metal industries), then complete Part F.

Otherwise, skip to Section VI – REMARKS.

Part D – SPECIFIC TECHNOLOGIES FOR PAPER INDUSTRIES (SIC 26 ONLY)

Mark (X) all technologies that were in place at your establishment during 1994.

1436 1☐ Continuous digesters
1437 1☐ Displacement bleaching process
1438 1☐ Top-wire (hybrid) paper forming
1439 1☐ Extended nip press
1440 1☐ Higher nip pressures
1441 1☐ Extended deliquefaction displacement heating processes
1442 1☐ Multi-effect falling-film evaporators for black liquor evaporation and concentration
1443 1☐ Vapor recompression evaporation of black liquor
1444 1☐ Waste-heat recovery technologies in lime kilns
1445 1☐ Improved filtration technologies allowing flexibility in the selection of fuel other than natural gas and distillate fuel oil for lime calcination.
14451 1☐ None of the above

Part E – SPECIFIC TECHNOLOGIES FOR CHEMICAL INDUSTRIES (SIC 28 ONLY)

Mark (X) all technologies that were in place at your establishment during 1994.

1446 1☐ Replacement of electrically heated platens in the thermoset molding process with a gas-fired central thermal fluid system.
1447 1☐ Processing residuals as alternative feedstocks
1448 1☐ Biomass materials (e.g., lignocellulosics, food crops, food wastes) used as alternative feedstocks
1449 1☐ Bioprocessing of petroleum, natural gas, coal, or other fossil-based feedstocks

The following technologies are innovative processing and separations that (1) substitute use of fossil-based feedstocks with biomass materials, (2) increase overall process efficiency, or (3) reduce environmental impacts and waste processing:

1450 1☐ Direct microbial
1451 1☐ Bioprocessing
1452 1☐ Gasification of biomass feedstocks
1453 1☐ Fast pyrolysis of biomass feedstocks
1454 1☐ Immobilized enzyme processes
1455 1☐ Innovative catalytic processes
1456 1☐ Recycling of materials
1457 1☐ Hydrolysis of biomass materials
1458 1☐ Enhanced bioprocessing with genetically engineered feedstocks or organisms
1459 1☐ Fermentation
1460 1☐ Fractionation of biomass
1461 1☐ Distillation process improvements
1462 1☐ Hydrocarbon cracking enhancements
14621 ☐ None of the above

Part F – SPECIFIC TECHNOLOGIES FOR PRIMARY METAL INDUSTRIES (SIC 33 ONLY)

Mark (X) all technologies that were in place at your establishment during 1994.

1463 1☐ Dry quenching during the coking process
1464 1☐ External desulfurization of the charge for ironmaking
1465 1☐ Hydrocarbon injection to maintain blast furnace temperatures
1466 1☐ Direct reduction ironmaking – sponge iron produced directly from iron ore
1467 1☐ Continuous casting
1468 1☐ Thin slab/strip casting
1469 1☐ Waste heat boilers/heat exchangers in combination with reheat furnaces
1470 1☐ Evaporative cooling of skid rails
1471 1☐ Electric induction reheat furnaces
1472 1☐ Hot charging – moving steel directly from the caster to the reheat furnace
1473 1☐ Direct rolling required no reheating
1474 1☐ Plasmasmelt smelting of partially reduced iron powder with pulverized coal
1475 1☐ Cold bonding (COBO) pelletizing technique
1476 1☐ Preheating combustion air
1477 1☐ Preheating raw materials
1478 1☐ Top gas pressure recovery from the blast furnace
1479 1☐ Slab heat recovery
1480 1☐ Continuous annealing
1481 1☐ Continuous cold rolling
1482 1☐ Bottom tap vessels
1483 1☐ Injection steelmaking
1484 1☐ Electroslag remelting
1485 1☐ Vacuum arc remelting
1486 1☐ Oxygen injection to blast furnace
1487 1☐ Coal injection to blast furnace
1488 1☐ Steel ladle metallurgy with reheat furnace
14881 1☐ None of the above

Section VI – REMARKS

Please use this space or attach a separate sheet for any explanations that may be essential in understanding your reported data.

1599

Section VII – CERTIFICATION

Name of person to contact regarding this report – *(Print or type)*		Telephone number →	Area code	Number	Extension
Address – Number and street	City		State	ZIP Code	

Period covered by this report: →	From			To		
	Month	Day	Year	Month	Day	Year

Signature of authorized person	Internet number or E-Mail (if available)	Date
	_____ @ _____	

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PLEASE PHOTOCOPY THIS FORM FOR YOUR RECORDS

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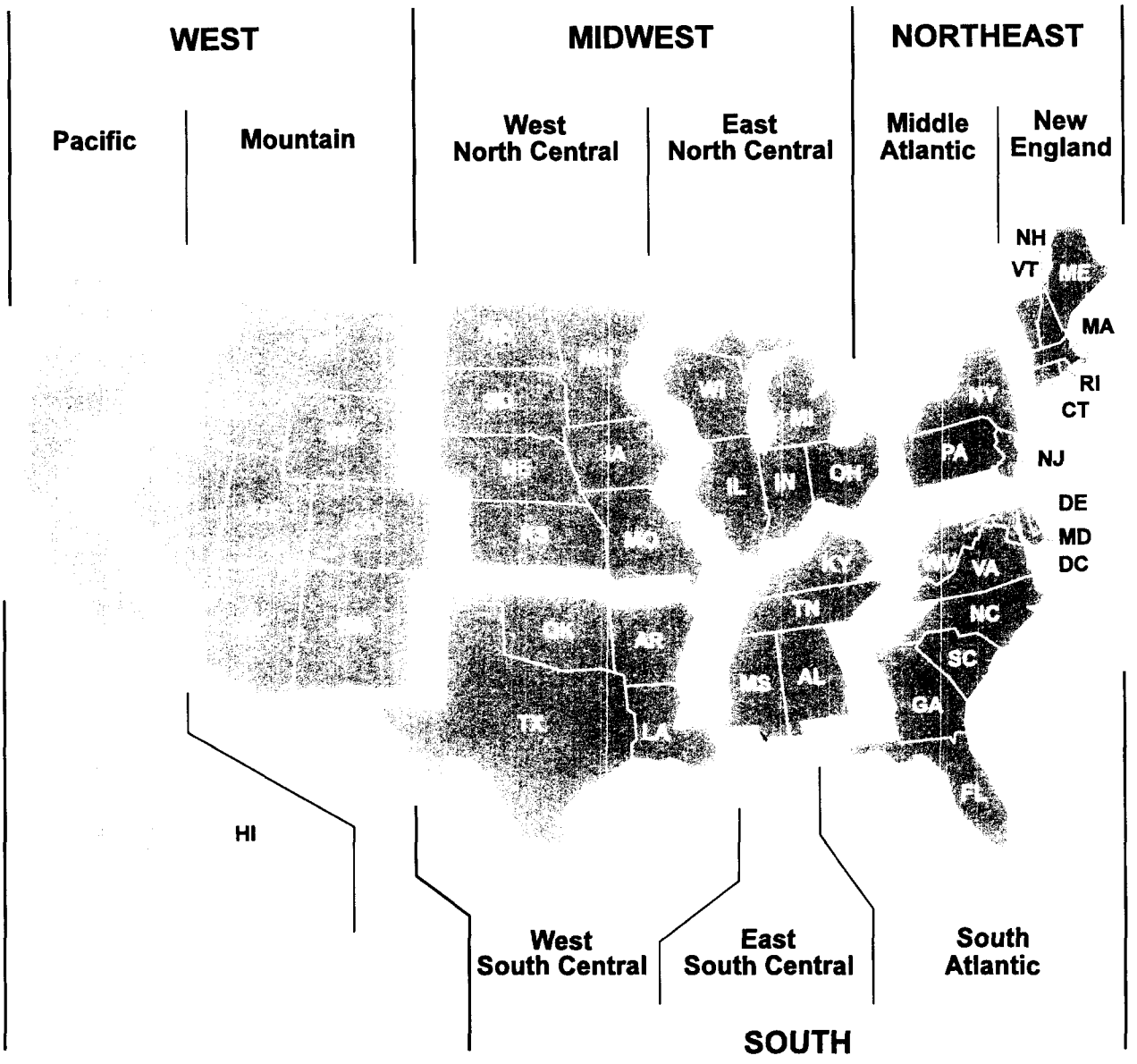
Appendix E

U.S. Census Regions and Divisions

Appendix E

U.S. Census Regions and Divisions



Source: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1996* (Washington, DC, October 1996), Figure 1.

Appendix F

Descriptions of Major Industrial Groups and Selected Industries

Appendix F

Descriptions of Major Industrial Groups and Selected Industries

This appendix contains descriptions of industrial groups and selected industries taken from the Standard Industrial Classification Manual, 1987 (SIC).[54] This appendix includes descriptions of the 30 groups that comprise the strata of the Manufacturing Energy Consumption Survey. These are the 20 major industrial groups (two-digit SIC) and the 10 major energy-consuming industries (four-digit SIC). The Standard Industrial Classification system is described in Appendix B.

SIC 20—Food and Kindred Products: This major group includes establishments manufacturing foods and beverages for human consumption and certain related products such as manufactured ice, chewing gum, vegetable and animal fats and oils, and prepared feeds for animals and fowls.

SIC 2011—Meat Packing Plants: Establishments primarily engaged in the slaughtering, for their own account or on a contract basis for the trade, of cattle, hogs, sheep, lambs, and calves for meat to be sold or to be used on the same premises in canning, cooking, curing, and freezing, and in making sausage, lard, and other products.

SIC 2033—Canned Fruits and Vegetables: Establishments primarily engaged in canning fruits, vegetables, and fruit and vegetable juices: and in manufacturing catsup and similar tomato sauces or natural and imitation preserves, jams, and jellies.

SIC 2037—Frozen Fruits and Vegetables: Establishments primarily engaged in freezing fruits, fruit juices, and vegetables. These establishments also produce important byproducts such as fresh or dried citrus pulp.

SIC 2046—Wet Corn Milling: Establishments primarily engaged in milling corn or sorghum grain (milo) by the wet process, and producing starch, syrup, oil, sugar, and byproducts such as gluten feed and meal. Also included in this industry are establishments primarily engaged in manufacturing starch from other vegetable sources (e.g., potatoes, wheat).

SIC 2051—Bread, Cake and Related Products: Establishments primarily engaged in manufacturing fresh or frozen bread and bread-type rolls and fresh cakes, pies, pastries and other similar "perishable" bakery products.

SIC 2061—Cane Sugar, Except Refining: Establishments primarily engaged in manufacturing raw sugar, syrup, or finished (granulated or clarified) cane sugar from sugarcane. Establishments primarily engaged in refining sugar from purchased raw cane sugar or sugar syrup are classified in Industry 2062.

SIC 2062—Cane Sugar Refining: Establishments primarily engaged in refining purchased raw cane sugar and sugar syrup.

SIC 2063—Beet Sugar: Establishments primarily engaged in manufacturing sugar from sugar beets.

SIC 2075—Soybean Oil Mills: Establishments primarily engaged in manufacturing soybean oil, cake, and meal, and soybean protein isolates and concentrates or in processing purchased soybean oil other than into edible cooking oils.

SIC 21—Tobacco Products: This major group includes establishments engaged in manufacturing cigarettes, cigars, smoking and chewing tobacco, snuff, and reconstituted tobacco and in stemming and redrying tobacco.

SIC 22—Textile Mill Products: This major group includes establishments engaged in performing any of the following operations: (1) preparation of fiber and subsequent manufacturing of yarn, thread, braids, twine, and cordage; (2) manufacturing broadwoven fabrics, narrow woven fabrics, knit fabrics, and carpets and rugs from yarn; (3) dyeing and

[54]Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1987*, pp. 67-263.

finishing fiber, yarn, fabrics, and knit apparel; (4) coating, waterproofing, or otherwise treating fabrics; (5) the integrated manufacture of knit apparel and other finished articles from yarn; and (6) the manufacture of felt goods, lace goods, nonwoven fabrics, and miscellaneous textiles.

SIC 23—Apparel and Other Textile Products: This major group, known as the cutting-up and needle trades, includes establishments producing clothing and fabricating products by cutting and sewing purchased woven or knit textile fabrics and related materials, such as leather, rubberized fabrics, plastics, and furs.

SIC 24—Lumber and Wood Products: This major group includes establishments engaged in cutting timber and pulpwood; merchant sawmills, lath mills, shingle mills, cooperage stock mills, planing mills, and plywood and veneer mills engaged in producing lumber and wood basic materials; and establishments engaged in manufacturing finished articles made entirely or mainly of wood or related materials.

SIC 2421—Sawmills and Planing Mills, General: Establishments primarily engaged in sawing rough lumber and timber from logs and bolts, or resawing cants and flitches into lumber, including box lumber and softwood cut stock; planing mills combined with sawmills; and separately operated planing mills which are engaged primarily in producing surfaced lumber and standard workings or patterns of lumber. This industry includes establishments primarily engaged in sawing lath and railroad ties and in producing tobacco hogshead stock, wood chips, and snow fence lath.

SIC 2436—Softwood Veneer and Plywood: Establishments primarily engaged in producing commercial softwood veneer and plywood, from veneer produced in the same establishment or from purchased veneer.

SIC 2493—Reconstituted Wood Products: Establishments primarily engaged in manufacturing reconstituted wood products. Important products of this industry are hardboard, particleboard, insulation board, medium density fiberboard, waferboard, and oriented strandboard.

SIC 25—Furniture and Fixtures: This major group includes establishments engaged in manufacturing household, office, public building, and restaurant furniture; and office and store fixtures.

SIC 2511—Wood Household Furniture, Except Upholstered: Establishments primarily engaged in manufacturing wood household furniture commonly used in dwellings. This industry also includes establishments manufacturing camp furniture.

SIC 26—Paper and Allied Products: This major group includes establishments primarily engaged in the manufacture of pulps from wood and other cellulose fibers, and from rags; the manufacture of paper and paper board; and the manufacture of paper and paperboard into converted products, such as paper coated off the paper machine, paper bags, paper boxes, and envelopes.

SIC 2611—Pulp Mills: Establishments primarily engaged in manufacturing pulp from wood or from other materials, such as rags, linters, wastepaper, and straw.

SIC 2621—Paper Mills: Establishments primarily engaged in manufacturing paper from wood pulp and other fiber pulp, and which may also manufacture converted paper products.

SIC 2631—Paperboard Mills: Establishments primarily engaged in manufacturing paperboard, including paperboard coated on the paperboard machine, from wood pulp and other fiber pulp.

SIC 27—Printing and Publishing: This major group includes establishments engaged in printing by one or more common processes, such as letterpress, lithography (including offset), gravure, or screen; and those establishments which perform services for the printing trade, such as bookbinding and platemaking.

SIC 28—Chemicals and Allied Products: This major group includes establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes. Establishments classified in this major group manufacture three general classes of products: (1) basic chemicals, such as acids, alkalies, salts, and organic chemicals; (2) chemical products to be used in further manufacture, such as synthetic fibers, plastics materials, dry colors,

and pigments; and (3) finished chemical products to be used for ultimate consumption, such as drugs, cosmetics, and soaps; or to be used as materials or supplies in other industries, such as paints, fertilizers, and explosives.

SIC 2812—Alkalies and Chlorine: Establishments primarily engaged in manufacturing alkalies and chlorine.

SIC 2813—Industrial Gases: Establishments primarily engaged in manufacturing industrial gases (including organic) for sale in compressed, liquid, and solid forms.

SIC 2816—Inorganic Pigments: Establishments primarily engaged in manufacturing inorganic pigments. Important products of this industry include black pigments, except carbon black, white pigments, and color pigments.

SIC 2819—Industrial Inorganic Chemicals, Not Elsewhere Classified: Establishments primarily engaged in manufacturing industrial organic chemicals, excluding alkalies and chlorine, industrial gases, and inorganic pigments.

SIC 2821—Plastics Materials and Resins: Establishments primarily engaged in manufacturing synthetic resins, plastics materials, and nonvulcanizable elastomers.

SIC 2822—Synthetic Rubber: Establishments primarily engaged in manufacturing synthetic rubber by polymerization or copolymerization. An elastomer for the purpose of this classification is a rubber-like material capable of vulcanization, such as copolymers of butadiene and styrene, or butadiene and acrylonitrile, polybutadienes, chloroprene rubbers, and isobutylene-isoprene copolymers.

SIC 2823—Cellulosic Manmade Fibers: Establishments primarily engaged in manufacturing cellulosic fibers (including cellulose acetate and regenerated cellulose such as rayon by the viscose or cuprammonium process) in the form of monofilament, yarn, staple, or tow suitable for further manufacturing on spindles, looms, knitting machines, or other textile processing equipment.

SIC 2824—Organic Fibers, Noncellulosic: Establishments primarily engaged in manufacturing manmade organic fibers, except cellulosic (including those of regenerated proteins, and of polymers or copolymers of such components as vinyl chloride, vinylidene chloride, linear esters, vinyl alcohols, acrylonitrile, ethylenes, amides, and related polymeric materials), in the form of monofilament, yarn, staple, or tow suitable for further manufacturing on spindles, looms, knitting machines, or other textile processing equipment.

SIC 2861—Gum and Wood Chemicals: Establishments primarily engaged in manufacturing hardwood and softwood distillation products, wood and gum naval stores, charcoal, natural dyestuffs, and natural tanning materials.

SIC 2865—Cyclic Crudes and Intermediates: Establishments primarily engaged in manufacturing cyclic organic crudes and intermediates, and organic dyes and pigments. Important products of this industry include: (1) aromatic chemicals, such as benzene, toluene, mixed xylenes naphthalene; (2) synthetic organic dyes; and (3) synthetic organic pigments.

SIC 2869—Industrial Organic Chemicals, Not Elsewhere Classified: Establishments primarily engaged in manufacturing industrial organic chemicals, excluding gum and wood chemicals, and cyclic organic crudes and intermediates, and organic dyes and pigments.

SIC 2873—Nitrogenous Fertilizers: Establishments primarily engaged in manufacturing nitrogenous fertilizer materials or mixed fertilizers from nitrogenous materials produced in the same establishment.

SIC 2874—Phosphatic Fertilizers: Establishments primarily engaged in manufacturing phosphatic fertilizer materials, or mixed fertilizers from phosphatic materials produced in the same establishment.

SIC 2895—Carbon Black: Establishments primarily engaged in manufacturing carbon black (channel and furnace black).

SIC 29—Petroleum Refining and Related Industries: This major group includes establishments primarily engaged in petroleum refining, manufacturing paving and roofing materials, and compounding lubricating oils and greases from purchased materials.

SIC 2911—Petroleum Refining: Establishments primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants, through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes.

SIC 30—Rubber and Miscellaneous Plastics Products: This major group includes establishments manufacturing products, not elsewhere classified, from plastics, resins, and from natural, synthetic, or reclaimed rubber, gutta percha, balata, or gutta siak.

SIC 3011—Tires and Inner Tubes: Establishments primarily engaged in manufacturing pneumatic casings, inner tubes, and solid and cushion tires for all types of vehicles, airplanes, farm equipment, and children's vehicles; tiring; camelback; and tire repair and retreading materials.

SIC 308—Miscellaneous Plastics Products Not Elsewhere Classified: Establishments primarily engaged in manufacturing (1) unsupported plastics film and sheet from purchased resins or from resins produced in the same plant; (2) unsupported plastics profiles, rods, tubes, and other shapes; (3) laminated plastics plate, sheet, profiles, rods, and tubes; (4) plastics pipe; (5) plastics bottles; (6) custom compounding of purchased plastics resins; (7) plastics plumbing fixtures; and (8) plastics products not elsewhere classified.

SIC 31—Leather and Leather Products: This major group includes establishments engaged in tanning, currying, and finishing hides and skins, leather converters, and establishments manufacturing finished leather and artificial leather products and some similar products made of other materials.

SIC 32—Stone, Clay, Glass, and Concrete Products: This major group includes establishments manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete and gypsum products, cut stone, abrasive and asbestos products, and other products from materials taken principally from the earth in the form of stone, clay, and sand.

SIC 3211—Flat Glass: Establishments primarily engaged in manufacturing flat glass. This industry also produces laminated glass, but establishments primarily engaged in manufacturing laminated glass from purchased flat glass are not included.

SIC 3221—Class Containers: Establishments primarily engaged in manufacturing glass containers for commercial packing and bottling, and for home canning.

SIC 3229—Pressed and Blown Glass and Glassware, Not Elsewhere Classified: Establishments primarily engaged in manufacturing glass and glassware, not elsewhere classified, pressed, blown, or shaped from glass produced in the same establishment. Establishments primarily engaged in manufacturing textile glass fibers are also included in this industry. Establishments primarily engaged in the production of pressed lenses for vehicular lighting, beacons, and lanterns are also included in this industry.

SIC 3241—Cement, Hydraulic: Establishments primarily engaged in manufacturing hydraulic cement, including portland, natural, masonry, and pozzolana cements.

SIC 3274—Lime: Establishments primarily engaged in manufacturing quicklime, hydrated lime, and "dead-burned" dolomite from limestone, dolomite shells, or other substances.

SIC 3296—Mineral Wool: Establishments primarily engaged in manufacturing mineral wool and mineral wool insulation products made of such siliceous materials as rock, slag and glass, or combinations thereof.

SIC 33—Primary Metal Industries: This major group includes establishments engaged in smelting and refining ferrous and nonferrous metals from ore, pig, or scrap; in rolling, drawing, and alloying metals; in manufacturing castings and other basic metal products; and in manufacturing nails, spikes, and insulated wire and cable.

SIC 331—Blast Furnace and Basic Steel Products Not Elsewhere Classified: Establishments primarily engaged in (1) manufacturing hot metal, pig iron, and silvery pig iron from iron ore and iron and steel scrap; converting pig iron, scrap iron, and scrap steel into steel; and in hot-rolling iron and steel into basic shapes, such as plates, sheets, strips, rods, bars, and tubing; (2) manufacturing ferro and nonferrous metal additive alloys by electrometallurgical or metallothermic processes, including high percentage ferroalloys and high percentage nonferrous additive alloys; (3) drawing wire from purchased iron or steel rods, bars or wire and manufacturing products made from wire such as steel nails and spikes; (4) cold-rolling steel sheets and strip from purchased hot-rolled sheets, cold-drawing steel bars and steel shapes from purchased hot-rolled steel bars, and producing other cold finished steel; (5) producing welded or seamless steel pipe and tubes and heavy riveted steel pipe from purchased materials; and (6) steel products not elsewhere classified.

SIC 3312—Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills: Establishments primarily engaged in manufacturing hot metal, pig iron, and silvery pig iron from iron ore and iron and steel scrap; converting pig iron, scrap iron, and scrap steel into steel; and in hot-rolling iron and steel into basic shapes, such as plates, sheets, strips, rods, bars, and tubing.

SIC 3313—Electrometallurgical Products: Establishments primarily engaged in manufacturing ferrous and nonferrous metal additive alloys by electrometallurgical or metallothermic processes, including high percentage ferroalloys and high percentage nonferrous additive alloys.

SIC 3321—Gray and Ductile Iron Foundries: Establishments primarily engaged in manufacturing gray and ductile iron castings, including cast iron pressure and soil pipes and fittings.

SIC 3331—Primary Copper: Establishments primarily engaged in smelting copper from the ore, and in refining copper by electrolytic or other processes.

SIC 3334—Primary Production of Aluminum: Establishments primarily engaged in producing aluminum from alumina and in refining aluminum by any process.

SIC 3339—Primary Nonferrous Metals, Not Elsewhere Classified: Establishments primarily engaged in smelting and refining nonferrous metals, except copper and aluminum.

SIC 3353—Aluminum Sheet, Plate, and Foil: Establishments primarily engaged in flat rolling aluminum and aluminum-base alloy basic shapes, such as sheet, plate, and foil, including establishments producing welded tube.

SIC 34—Fabricated Metal Products: This major group includes establishments engaged in fabricating ferrous and nonferrous metal products such as metal cans, tinware, handtools, cutlery, general hardware, nonelectric heating apparatus, fabricated structural metal products, metal forgings, metal stampings, ordnance (except vehicles and guided missiles), and a variety of metal and wire products, not elsewhere classified.

SIC 35—Industrial Machinery and Equipment: This major group includes establishments engaged in manufacturing industrial and commercial machinery and equipment and computers.

SIC 357—Computer and Office Equipment: Establishments primarily engaged in manufacturing electronic computers; computer storage devices; computer terminals; point-of-sale devices; funds transfer devices and other calculating and accounting machines; and office machines and devices not elsewhere classified, including typewriters and word processing equipment.

SIC 36—Electronic and Other Electric Equipment: This major group includes establishments engaged in manufacturing machinery, apparatus, and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy.

SIC 37—Transportation Equipment: This major group includes establishments engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water.

SIC 3711—Motor Vehicles and Car Bodies: Establishments primarily engaged in manufacturing or assembling complete passenger automobiles, trucks, commercial cars and buses, and special purpose motor vehicles which are

for highway use. This industry also includes establishments primarily engaged in manufacturing chassis and passenger car bodies.

SIC 3714—Motor Vehicle Parts and Accessories: Establishments primarily engaged in manufacturing motor vehicle parts and accessories, but not engaged in manufacturing complete motor vehicles or passenger car bodies.

SIC 38—Instruments and Related Products: This major group includes establishments engaged in manufacturing instruments (including professional and scientific) for measuring, testing, analyzing, and controlling, and their associated sensors and accessories; optical instruments and lenses; surveying and drafting instruments; hydrological, hydrographic, meteorological, and geophysical equipment; search, detection, navigation, and guidance systems and equipment; surgical, medical, and dental instruments, equipment and supplies; ophthalmic goods; photographic equipment and supplies; and watches and clocks.

SIC 39—Miscellaneous Manufacturing Industries: This major group includes establishments primarily engaged in manufacturing products not classified in any other major group.

Appendix G

Metric Conversion Factors

Appendix G

Metric Conversion Factors

Data in the Energy Information Administration publications are expressed in units, such as British thermal units, barrels, cubic feet, and short tons, that historically have been used in the United States. However, because U.S. activities involve foreign nations, most of which use metric units of measure, the United States is committed to making the transition to the metric system. The metric conversion factors presented in Table G1 can be used to calculate the metric-unit equivalents of values expressed in U.S. units. For example, 500 short tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short tons=453.6 metric tons).

Table G1. Metric Conversion Factors

Type of Unit	U.S. Unit		Conversion Factor	Metric Unit
Mass	Short Tons	X	0.9071847	= Metric Tons (t)
	Short Tons Uranium Oxide (U_3O_8)	X	0.769	= Metric Tons Uranium (U)
	Short Tons Uranium Fluoride (UF_6)	X	0.613	= Metric Tons Uranium (U)
	Long Tons	X	1.016	= Metric Tons(t)
	Pounds (lb)	X	0.45359237[a]	= Kilograms(kg)
	Pounds Uranium Oxide (lb U_3O_8)	X	0.384645[b]	= Kilograms (kg)
	Ounces, Avoirdupois (oz)	X	28.34952	= Grams(g)
Volume	Barrels of Oil (bbl)	X	0.1589873	= Cubic Meters (m^3)
	Cubic Yards (yd^3)	X	0.765555	= Cubic Meters (m^3)
	Cubic Feet (ft^3)	X	0.02831685	= Cubic Meters (m^3)
	U.S. Gallons (gal)	X	3.785412	= Liter (L)
	Ounces, Fluid (fl oz)	X	29.57353	= Milliliters (ml)
	Cubic Inches (in^3)	X	16.38706	= Milliliters (ml)
Length	Miles (mi)	X	1,609344[a]	= Kilometers (km)
	Yards (yd)	X	0.9144[a]	= Meters (m)
	Feet (ft)	X	0.3048[a]	= Meters (m)
	Inches (in)	X	2.54[a]	= Centimeters (cm)
Area	Acres	X	0.40469	= Hectares (ha)
	Square Miles (mi^2)	X	2,589988	= Square Kilometers (km^2)
	Square Yards (yd^2)	X	0.836127 4	= Square Meters (m^2)
	Square Feet (ft^2)	X	0.092903 04[a]	= Square Meters (m^2)
	Square Inches (in^2)	X	6.45616[a]	= Square Centimeters (cm^2)
Temperature	*Degrees Fahrenheit*[c] (°F)	X	*5/9 (after subtracting 32)*[a]	= *Degrees Celsius* (°c)
Energy	British thermal units (Btu)	X	1,055.056	= Joules (J)
	Calories (cal)	X	4.1868	= Joules (J)
	Kilowatthours (kWh)	X	3.6	= Megajoules (MJ)

[a]Exact Conversion.
[b]Calculated by the Energy Information Administration.
[c]To convert degrees Celsius (°C) to degrees Fahrenheit (°F) multiply by 9/5, then add 32.
Sources: •General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 27, 1993), pp. 9-11, 13, and 16. •National Institute of Standards and Technology, *Special Publications* 330, 811, and 814. •American National Standards Institute/Institute of Electrical and Electronic Engineers, ANS/EEE Std.268-1982, pp. 28 and 29. •Energy Information Administration/*Monthly Energy Review August 1993*, Appendix B, pp. 161.

Appendix H

Related EIA Publications on Energy Consumption

Appendix H

Related EIA Publications on Energy Consumption

For information on how to obtain the current publications, see the inside cover of this report. For information on later publications, contact the National Energy Informtion Center on (202) 586-8800. (Older reports, except Technical and Service Reports, are stored on microfiche via the National Technical Information Service (NTIS).)

In addition to the reports listed below, public-use data tapes and data diskettes for the residential, residential transportation, and commercial sectors are available from the National Technical Information Service (NTIS). To obtain information on how to order the tapes/diskettes, you may call NTIS at 703-487-4650, FAX number 703-321-8547. Data diskettes can also be obtained from the Office of Scientific and Technical Information (OSTI). For OSTI ordering information, call 423-576-8401. The current microdata for the various surveys can be found on the Consumption Homepage at http://www.eia.doe.gov/emeu/page1.html.

Industrial Sector

Changes in Energy Intensity in the Manufacturing Sector 1985-1991, September 1995, DOE/EIA-0552(85-91).

Manufacturing Consumption of Energy 1991, December 1994, DOE/EIA-0512(91).

"Energy Preview: Manufacturing Energy Consumption Survey Preliminary Estimates, 1991," *Monthly Energy Review*, September 1993, DOE/EIA-0035(93/01).

"Energy Efficiency in the Manufacturing Sector," *Monthly Energy Review* (Article), p.1, December 1992.

Manufacturing Energy Consumption Survey: Changes in Energy Intensity in the Manufacturing Sector 1980-1988, December 1991, DOE/EIA-0552(80-88).

Manufacturing Energy Consumption Survey: Manufacturing Fuel-Switching Capability 1988; September 1991, DOE/EIA-0515(88).

Manufacturing Energy Consumption Survey: Consumption of Energy, 1988; May 1991, DOE/EIA- 0512(88).

Manufacturing Energy Consumption Survey: Energy Efficiency in Manufacturing, 1985; January 1990, DOE/EIA-0516(85).

Manufacturing Energy Consumption Survey: Fuel-Switching Capability, 1985; December 1988, DOE/EIA-0515(85).

Manufacturing Energy Consumption Survey: Methodological Report, 1985; November 1988, DOE/EIA0514(85).

Manufacturing Energy Consumption Survey: Consumption of Energy, 1985; November 1988, DOE/EIA-0512(85).

"Manufacturing Sector Energy Consumption 1985 Provisional Estimates," *Monthly Energy Review* (Article), pp. vii-x, January 1987, DOE/EIA-0035 (87/01).

Report on the 1980 Manufacturing Industries' Energy Consumption Study and Survey of Large Combustors; February 1983, DOE/EIA-0358.

Industrial Energy Consumption, Survey of Large Combustors: Report on Alternate Fuel-Burning Capabilities of Large Boilers in 1979; February 1982, DOE/EIA-0304, GP.

Methodological Report of the 1980 Manufacturing Industries Survey of Large Combustors (EIA-463); March 1982, DOE/EIA-0306.

Other Publications on the Industry Sector

Energy Consumption Series—*Derived Annual Estimates of Manufacturing Energy Consumption 1974-1988*, August 1992, DOE/EIA-0555(92)/3.

Energy Consumption Series—*Development of the 1991 Manufacturing Energy Consumption Survey*, May 1992, DOE/EIA-0555(92)/2.

Residential Sector

Housing Characteristics

Note: The survey name was dropped from the beginning of the report title starting with the 1987 data reports.

Housing Characteristics, 1993; June 1995, DOE/EIA-0314(93).

Housing Characteristics 1990; May 1992, DOE/EIA-0314(90).

Housing Characteristics 1987; May 1989, DOE/EIA-0314(87).

Residential Energy Consumption Survey: Housing Characteristics 1984; October 1986, DOE/EIA-0314(84).

Residential Energy Consumption Survey: Housing Characteristics, 1982; August 1984, DOE/EIA-0314(82).

Residential Energy Consumption Survey Housing Characteristics, 1981; August 1983, DOE/EIA-0314(81).

Residential Energy Consumption Survey: Housing Characteristics, 1980; June 1982, DOE/EIA-0314.

Residential Energy Consumption Survey: Characteristics of the Housing Stock and Households, 1978; February 1980, DOE/EIA-0207/2.

Residential Energy Consumption Survey: Conservation; February 1980, DOE/EIA-0207/3.

Preliminary Conservation Tables from the National Interim Energy Consumption Survey; August 1979, DOE/EIA-0193/P.

Characteristics of the Housing Stock and Households: Preliminary Findings from the National Interim Energy Consumption Survey; October 1979, DOE/EIA-0199/P.

Consumption and Expenditures

Note: The survey name was dropped from the beginning of the report title starting with the 1987 data reports. The titles were changed to *Household Energy Consumption and Expenditures 1987, Part 1: National* and *Part 2: Regional.*

Household Energy Consumption and Expenditures 1993; October 1995, DOE/EIA-0321(93).

"Household Energy Consumption and Expenditures 1990," *Monthly Energy Review*, August 1993, DOE/EIA-0035(93/08).

Household Energy Consumption and Expenditures 1990; February 1993, DOE/EIA-0321/1(90).

Household Energy Consumption and Expenditures 1990\S; DOE/EIA-0321/2(90).

Household Energy Consumption and Expenditures 1987, Part 1: National Data; October 1989, DOE/EIA-0321/1(87). Note: Energy end-use data are included in this report.

Household Energy Consumption and Expenditures 1987, Part 2: Regional Data; DOE/EIA-0321/2(87).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1984 Through March 1985, Part 1: National Data; March 1987, DOE/EIA-0321/1(84).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1984 Through March 1985, Part 2: Regional Data; May 1987, DOE/EIA-0321/2 (84). Note: Energy end-use data are included in this report.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1982 Through March 1983, Part 1: National Data; November 1984, DOE/EIA-0321/1(82).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1982 Through March 1983, Part 2: Regional Data; December 1984, DOE/EIA-0321/2(82).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1981 Through March 1982, Part 1: National Data; September 1983, DOE/EIA-0321/1(81).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1981 Through March 1982, Part 2: Regional Data; October 1983, DOE/EIA-0321/2(81).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1980 Through March 1981, Part 1: National Data; September 1982, DOE/ EIA-0321/1(80).

Residential Energy Consumption Survey: Consumption and Expenditures, April 1980 Through March 1981, Part 2: Regional Data; June 1983, DOE/EIA-0321/2(80).

Residential Energy Consumption Survey: 1979-1980 Consumption and Expenditures, Part 1: National Data (Including Conservation); April 1981, DOE/EIA-0262/1.

Residential Energy Consumption Survey: 1979-1980 Consumption and Expenditures, Part II: Regional Data; May 1981, DOE/EIA-0262/2.

Residential Energy Consumption Survey: Consumption and Expenditures, April 1978 Through March 1979; July 1980, DOE/EIA-0207/5.

Single-Family Households: Fuel Oil Inventories and Expenditures: National Interim Energy Consumption Survey; December 1979, DOE/EIA-0207/1.

Other Publications on the Residential Sector

Energy Consumption Series—*Residential Energy Consumption Survey Quality Profile,* March 1996, DOE/EIA-0555(96)/1.

Energy Consumption Series—*Sample Design for the Residential Energy Consumption Survey,* August 1994, DOE/EIA-0555(94)/1.

Energy Consumption Series—*User-Needs Study of the 1993 Residential Energy Consumption Survey*, September 1993, DOE/EIA-0555(93)/2.

"End-Use Consumption of Residential Energy" *Monthly Energy Review* (Article), pp. vii-xiv, July 1987, DOE/EIA-0035(87/07).

Residential Energy Consumption Survey: Trends in Consumption and Expenditures 1978-1984 June 1987, DOE/EIA-0482.

Residential Conservation Measures; July 1986, SR/EEUD/86/01.

An Economic Evaluation of Energy Conservation and Renewable Energy Tax Credits; October 1985, Service Report.

Residential Energy Consumption and Expenditures by End Use for 1978, 1980, and 1981; December 1984, DOE/EIA-0458.

Weatherization Program Evaluation, SR-EEUD- 84-1; August 1984 (available from the Office of the Assistant Secretary for Conservation and Renewable Energy, Department of Energy).

Residential Energy Consumption Survey: Regression Analysis of Energy Consumption by End Use; October 1983, DOE/EIA-0431.

National Interim Energy Consumption Survey: Exploring the Variability In Energy Consumption; July 1981, DOE/EIA-0272.

National Interim Energy Consumption Survey: Exploring the Variability in Energy Consumption--A Supplement; October 1981, DOE/EIA-0272/S.

Residential Transportation Sector

Note: The survey name was dropped from the beginning of the report title starting with the 1988 data report, and the report title changed to *Household Vehicles Energy Consumption 1988.*

Household Vehicles Energy Consumption 1994; August 1997, DOE/EIA-0464(94).

Household Vehicles Energy Consumption 1991; December 1993, DOE/EIA-0464(91).

"Energy Preview: Residential Transportation Energy Consumption Survey Preliminary Estimates, 1991," *Monthly Energy Review*, January 1993, DOE/EIA-0035(93/01).

Household Vehicles Energy Consumption 1988; February 1990, DOE/EIA-0464(88).

Residential Transportation Energy Consumption Survey: Consumption Patterns of Household Vehicles 1985; April 1987, DOE/EIA-0464(85).

Residential Transportation Energy Consumption Survey: Consumption Patterns of Household Vehicles, 1983; January 1985, DOE/EIA-0464(83).

Residential Energy Consumption Survey: Consumption Patterns of Household Vehicles, Supplement: January 1981 to September 1981; February 1983, DOE/EIA-0328.

Residential Energy Consumption Survey: Consumption Patterns of Household Vehicles, June 1979 to December 1980; April 1982, DOE/EIA-0319.

Commercial Sector

Note: The name of the Nonresidential Buildings Energy Consumption Survey was changed to the Commercial Buildings Energy Consumption Survey, beginning with the 1989 survey. The survey name was also dropped from the report title at that time and subsequently.

Characteristics of Buildings

Commercial Buildings Characteristics 1995; August 1997, DOE/EIA-E-0109, Electronic Only. This report can be accessed at www.eia.doe.gov/emeu/cbecs/cb951a.html.

Commercial Buildings Characteristics 1992; April 1994, DOE/EIA-0246(92).

"Commercial Buildings Characteristics 1992," *Monthly Energy Review*, January 1994, DOE/EIA-0035(94/01).

Commercial Buildings Characteristics 1989; June 1991, DOE/EIA-0246(89).

Nonresidential Buildings Energy Consumption Survey: Characteristics of Commercial Buildings, 1986; September 1988, DOE/EIA-0246(86).

Nonresidential Buildings Energy Consumption Survey: Characteristics of Commercial Buildings, 1983; July 1985, DOE/EIA-0246(83).

Nonresidential Buildings Energy Consumption Survey: Characteristics of Commercial Buildings, 1983; A Supplemental Reference, DOE/EIA-M008.

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Nonresidential Buildings Energy Consumption Survey: Fuel Characteristics and Conservation Practices; June 1981, DOE/EIA-0278.

Nonresidential Buildings Energy Consumption Survey: Building Characteristics; March 1981, DOE/EIA-0246.

Consumption and Expenditures

Commercial Buildings Consumption and Expenditures 1992; April 1995, DOE/EIA-0318(92).

Commercial Buildings Consumption and Expenditures 1989; April 1992, DOE/EIA-0318(89).

Nonresidential Buildings Energy Consumption Survey: Commercial Buildings Consumption and Expenditures 1986; May 1989, DOE/EIA-0318(86).

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Nonresidential Buildings Energy Consumption Survey: 1979 Consumption and Expenditures, Part 1: Natural Gas and Electricity; March 1983, DOE/EIA-0318/1.

Nonresidential Buildings Energy Consumption Survey: 1979 Consumption and Expenditures, Part 2: Steam, Coal, Fuel Oil, LPG, and Total Fuels; December 1983, DOE/EIA-0318(79)/2.

Other Publications on the Commercial Sector

Service Report: *Federal Buildings Supplemental Survey 1993*, November 1995, SR/EMEU/95-02.

Energy Consumption Series— *Energy End-Use Intensities in Commercial Buildings*, September 1994, DOE/EIA-0555(94)/2.

"Assessment of Energy Use in Multibuilding Facilities," *Monthly Energy Review*, December 1993, DOE/EIA-0035(93/12).

Energy Consumption Series—*Assessment of Energy Use in Multibuilding Facilities*, August 1993, DOE/EIA-0555(93)/1.

Energy Consumption Series—*User-Needs Study for the 1992 Commercial Buildings Energy Consumption Survey*, September 1992, DOE/EIA-0555(92)/4.

Energy Consumption Series—*Lighting in Commercial Buildings*; March 1992, DOE/EIA-0555(92)/1.

Cross-Sector

Energy Consumption Measuring Energy Efficiency in the United States' Economy: A Beginning, October 1995, DOE/EIA-0555(95)/2.

Energy Consumption Series-Buildings and Energy in the 1980's, June 1995, DOE/EIA-0555(95)/1.

Energy Consumption by End-Use Sector: A Comparison of Measures by Consumption and Supply Surveys; April 6, 1990, DOE/EIA-0533.

Natural Gas: Use and Expenditures; April 1983, DOE/EIA-0382.

Public-Use Tapes

Note: Later tapes are available through NTIS. Current microdata for the various surveys can be found on the Consumption Homepage at http://www.eia.doe.gov/emeu/page1.html.

Residential and Residential Transportation Sectors

Residential Transportation Energy Consumption Survey, 1988, Order No. PB90-501461.

Residential Energy Consumption Survey: 1987 and Residential Transportation Energy Consumption Survey, 1988, Order No. PB90-501461.

Residential Energy Consumption Survey: 1984 and Residential Transportation Energy Consumption Survey, 1985; Order No. PB87-186540.

Residential Energy Consumption Survey: 1982 and Residential Transportation Energy Consumption Survey, 1983; Order No. PB85-221760.

Residential Energy Consumption Survey: Consumption and Expenditures, 1980-1981; Monthly Billing Data; Order No. PB84-166230.

Residential Energy Consumption Survey: Housing Characteristics, 1981; Consumption and Expenditures, 1981-1982; Monthly Billing Data; Order No. PB84-120476.

Residential Energy Consumption Survey: Housing Characteristics, Annualized Consumption and Expenditures, 1980-1981; Order No. PB83-199554.

Residential Energy Consumption Survey: Household Transportation Panel Monthly Gas Purchases and Vehicle and Household Characteristics, 6/79-9/81; Order No. PB84-162452.

Residential Energy Consumption Survey: Household Screener Survey, 1979-1980; Order No. PB82-114877.

Residential Energy Consumption Survey: Household Monthly Energy Consumption and Expenditures, 1978-1979; Order No. PB82-114901.

National Interim Energy Consumption Survey (Residential), 1978; Order No. PB81-108714.

Commercial Sector

Nonresidential Buildings Energy Consumption Survey: 1986 Data; Order No. PB90-500034.

Nonresidential Buildings Energy Consumption Survey: 1979 and 1983 Data; Order No. PB88-245162.

Public-Use Diskettes

Note: The current public-use data can be found on the Consumption Homepage at http://www.eia.doe.gov/emeu/page1.html. Diskettes containing later public-use data are available through the Office of Scientific and Technical Information (OSTI) and the National Technical Information Service (NTIS). The prices noted may have changed.

Buildings and Energy in the 1980's data, OSTI - ASCII or dBase format, order by title, $10 per diskette.

Commercial Buildings Consumption and Expenditures, 1992 data, OSTI - ASCII or dBase format, order by title, $10 per diskette, $40 set of four. NTIS - ASCII or dBase format, order by title, call for prices.

Commercial Buildings Characteristics 1992 data, OSTI - ASCII or dBase format, order by title, $10 per diskette, $40 set of four. NTIS - ASCII or dBase format: Order No. PB-94-504305, call for prices.

Commercial Buildings Energy Consumption Survey 1989 data, OSTI - ASCII format, order by title, $10 per diskette, $40 set of four. NTIS - ASCII format: Order No. PB92-504232, $140.

Nonresidential Buildings Energy Consumption Survey 1986 Data, NTIS - ASCII format: Order No. PB91-506808, $130.

Residential Transportation Energy Consumption Survey 1994 Data, http://www.eia.doe.gov/emeu/page1.html and OSTI-ASCII (3 diskettes) or dBase (3 diskettes), order by title, $10.00 per diskette.

Residential Transportation Energy Consumption Survey 1991 Data, OSTI-ASCII (3 diskettes) or dBase (3 diskettes), order by title, $10.00 per diskette, NTIS-ASCII Order No. PB94-500824, dBase Order No. PB94-500816.

Residential Transportation Energy Consumption Survey 1988 Data, OTSI - ASCII or dBase format, order by title, $10 per diskette, $40 for set of four. NTIS - ASCII format: Order No. PB91-507269, dBase format: Order No. PB91-507277, $50 each.

Residential Energy Consumption Survey 1993 Data, OSTI-ASCII (5 diskettes) or dBase (4 diskettes) format, order by title, $10.00 per diskette.

Residential Energy Consumption Survey 1990 Data, OSTI-ASCII (3 diskettes) or dBase (2 diskettes) format, order by title, $10.00 per diskette, NTIS-ASCII format, Order No. PB93-506103 or dBase format, Order No. PB93-506095.

Residential Energy Consumption Survey 1987 Data, OSTI - ASCII or dBase format, order by title, $10 per diskette, $40 set of four. NTIS - ASCII format: Order No. PB-91-505115, $130, and dBase format: Order No. PB-91-505107, $130.

Note: The Energy Information Administration also publishes annually the *State Energy Data Report, Consumption Estimates*, DOE/EIA-0214; the *State Energy Price and Expenditures Report*, DOE/EIA-0376; and the *Monthly Energy Review*, DOE/EIA-0035. These reports contain annual and monthly consumption information derived from EIA supply surveys.

Glossary

Anthracite: A hard, black, lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. Often referred to as hard coal.

Barrel: A volumetric unit of measure equivalent to 42 U.S. gallons.

Biomass: Organic nonfossil material of biological origin constituting a renewable energy source.

Bituminous Coal: A dense, black coal, often with well-defined bands of bright and dull material, with a moisture content usually less than 20 percent. Often referred to as soft coal. It is the most common coal.

Blast Furnace: A shaft furnace in which solid fuel (coke) is burned with an air blast to smelt ore in a continuous operation.

Blast Furnace Gas: The waste combustible gas generated in a blast furnace when iron ore is being reduced with coke to metallic iron. It is commonly used as a fuel within the steel works.

Boiler Fuel: An energy source to produce heat that is transferred to the boiler vessel in order to generate steam or hot water. Fossil fuels are the primary energy sources used to produce heat for boilers.

Breeze: The fine screenings from crushed coke. Usually breeze will pass through a ½-inch or ¾-inch screen opening. It is most often used as a fuel source in the process of agglomerating iron ore.

British Thermal Unit (Btu): The quantity of heat required to raise the temperature of 1 pound of water by 1 degree Fahrenheit.

Butane (C_4H_{10}): A normally gaseous straight-chain or branched-chain paraffinic hydrocarbon. It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane. In the manufacturing sector, a primary use of butane is in the manufacture of chemicals and rubber.

Butylene (C_4H_8): A normally gaseous, olefinic hydrocarbon recovered from the refinery processes and converted to alkylate, a high-octane motor gasoline blending component.

Byproduct: A secondary or additional product resulting from the feedstock use of energy or the processing of nonenergy materials. For example, the more common byproducts of coke ovens are coal gas, tar, and a mixture of benzene, toluene, and xylenes (BTX).

Census Division: A geographic area consisting of several States defined by the U.S. Department of Commerce, Bureau of the Census (see the map in Appendix E). The States are grouped into four regions and nine divisions.

Region	Division	States
Northeast	New England	Connecticut, Maine, Massachusetts, New Hampshire, Vermont, and Rhode Island
	Middle Atlantic	New Jersey, New York, and Pennsylvania
Midwest	East North Central	Illinois, Indiana, Michigan, Ohio, and Wisconsin
	West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota

South	South Atlantic	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia
	East South Central	Alabama, Kentucky, Mississippi, and Tennessee
	West South Central	Arkansas, Louisiana, Oklahoma, and Texas
West	Mountain	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming
	Pacific	Alaska, California, Hawaii, Oregon, and Washington

Census Region: See **Census Division** and the map in Appendix E.

Coal: See **Anthracite, Bituminous Coal,** and **Lignite.**

Coal Coke: A hard, porous product made from baking bituminous coal in ovens at temperatures as high as 2,000 degrees Fahrenheit. It is used both as a fuel and as a reducing agent in smelting iron ore in a blast furnace.

Cogeneration: The production of electrical energy and another form of useful energy (such as heat or steam) through the sequential use of energy.

Coke Oven Gas: The mixture of permanent gases produced by the carbonization of coal in a coke oven at temperatures in excess of 1,000 degrees Celsius.

Consumption: The use of energy as a source of heat or power or as an input to the manufacturing process.

Conventional Electricity Generation: Thermal generation of electricity by a plant using coal, petroleum, or natural gas as its source of energy, or hydroelectric generation of electricity by a plant using natural stream flow as regulated by available storage. In this report, conventional electricity generation is the direct nonprocess end use that includes fossil fuel used in electric generators for which steam is not an intermediate input. If intermediate energy sources are used, as in cogeneration, the fossil fuel is counted as boiler fuel (i.e., an indirect use).

Conversion Factor: A number that translates units of one system into corresponding values of another system. Conversion factors are used to translate physical units of measure for various energy sources into their Btu equivalents.

Crude Oil: A mixture of hydrocarbons that exists in a liquid state in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Crude oil is reported as liquid equivalents at the surface (excluding basic sediment and water), measured in terms of barrels of 42 U.S. gallons at atmospheric pressure and corrected to 60 degrees Fahrenheit.

Demand-Side Management (DSM): A term used to describe a variety of programs sponsored by utility companies to encourage customers to modify their energy use. In general, DSM programs are designed to reduce demand or to modify patterns of demand as an alternative to adding new capacity.

Direct Nonprocess End Use: Those end uses that may be found on commercial, residential, or other sites, as well as at manufacturing establishments. They include heating, ventilation, and air conditioning (HVAC), facility lighting, facility support, onsite transportation, conventional electricity generation, and other nonprocess uses. "Direct" denotes that only the quantities of electricity or fossil fuel used in their original state (i.e., not transformed) are included in the estimates.

Direct Process End Use: Those end uses that are specific to the carrying out of manufacturing. They include process heating, process cooling and refrigeration, machine drive, electrochemical processes, and other process uses. "Direct" denotes that only the quantities of electricity or fossil fuel used in their original state (i.e., not transformed) are included in the estimates. See **Manufacturing Establishment.**

Distillate Fuel Oil: The general classification for light fuel oils distilled during the refining process. The classification includes products known as Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels. Distillate fuel oil is used primarily for space heating, on-and-off highway engine fuel, and electric power generation.

Durable Goods: Manufactured goods designed to be durable, such as appliances.

Electricity: A form of energy generated by friction, induction, or chemical change that is caused by the presence and motion of elementary charged particles of which matter consists.

Electricity Demand: Electricity demand is the amount of electricity actually consumed onsite, regardless of where or how it was produced. It is a useful measure of electricity consumption without regard to the consumption of other energy sources. Electricity demand is estimated as the sum of electricity purchases, transfers in, and total onsite generation minus the quantities of electricity sold or transferred offsite.

Electric Utility: A legal entity engaged in the generation, transmission, distribution, or sale of electric energy, primarily for use by the public; legally obligated to provide service to the public within its franchised area; and required to file forms listed in the *Code of Federal Regulations*, Title 18, Part 141. Independent power producers and facilities that qualify as cogenerators or small power producers under the Public Utility Regulatory Policies Act are not considered electric utilities. See **Nonutility Power Producers**.

Electrochemical Process: The direct process end use in which electricity is used to cause a chemical transformation. Major uses of electrochemical process occur in the aluminum industry in which alumina is reduced to molten aluminum metal and oxygen, and in the alkalies and chlorine industry, in which brine is separated into caustic soda, chlorine, and hydrogen.

Embodied Energy for Electricity: The energy electricity suppliers use to generate the electricity consumed at the site. See **First Use of Energy for All Purposes**.

End Use: A use for which total input energy for heat, power, and electricity generation is consumed at the manufacturing establishment. In end-use estimates presented in this report, nonfuel uses of energy sources are not considered. End uses in this report include three broad categories: indirect uses, direct uses, and direct nonprocess.

Energy: The capacity for doing work as measured in the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy).

Energy Source: A substance, such as natural gas, coal, or electricity, that supplies heat or power.

Establishment: As defined by the *Standard Industrial Classification Manual 1987*, ". . . an economic unit, generally at a single physical location, where business is conducted or where services or industrial operations are performed." See **Manufacturing Establishment**.

Ethane (C_2H_6): A normally gaseous paraffinic hydrocarbon extracted from natural gas or refinery gas streams. In the manufacturing sector, ethane is used primarily as a petrochemical feedstock for the production of chemicals and plastic materials.

Ethylene (C_2H_4): A normally gaseous, colorless, flammable olefinic hydrocarbon recovered from natural gas and petroleum. In the manufacturing sector, ethylene is used primarily as a petrochemical feedstock for numerous chemical applications and the production of consumer goods.

Expenditures: Funds spent for energy purchased and paid for or delivered to a manufacturer during a calendar year. For the purposes of the MECS, expenditures include State and local taxes and delivery charges.

Facility Heating, Ventilation, and Air Conditioning (HVAC): The direct nonprocess end use that includes energy use in systems that condition air in a building.

Facility Lighting: The direct nonprocess end use that includes energy used in equipment that illuminates buildings and other areas on the establishment site.

Facility Support: The direct nonprocess end use that includes energy used in diverse applications that are normally associated with office or building operations such as cooking in cafeterias; operation of office equipment such as personal computers and copying machines; and operation of elevators.

First Use of Energy for All Purposes: All energy consumed by end users, excluding electricity but including the energy consumed at electric utilities to generate electricity.

Fossil Fuel: Any naturally occurring organic fuel formed in the Earth's crust, such as coal, crude oil, and natural gas.

Fuel: Any substance that can be burned to produce heat or power.

Fuel-Switching Capability: The short-term capability of a manufacturing establishment to have used substitute energy sources in place of those actually consumed. Capability to use substitute energy sources means that the establishment's combustors (for example, boilers, furnaces, ovens, and blast furnaces) had the machinery or equipment either in place or available for installation so that substitutions could actually have been introduced within 30 days without extensive modifications. Fuel-switching capability does not depend on the relative prices of energy sources; it depends only on the characteristics of the equipment and certain legal constraints.

Generation: The process of producing steam or electrical energy by transforming other forms of energy.

Geothermal Energy (as used at electricity generating facilities): Hot water or steam, extracted from reservoirs in the Earth's crust and supplied to steam turbines that drive generators to produce electricity.

Hydroelectric Power: Electricity generated by a turbine driven by falling water.

Hydrogen: A colorless, odorless, highly flammable gaseous element; the lightest of all gases.

Indirect Uses (end-use category): The end-use category that handles boiler fuel. Fuel in boilers is transformed into another useful energy source, steam or hot water, which is in turn used in other end uses, such as process or space heating or electricity generation. Manufacturers find measuring quantities of steam as it passes through to various end uses especially difficult because variations in both temperature and pressure affect energy content. Thus, the MECS does not present end-use estimates of steam or hot water and shows only the amount of the fuel used in the boiler to produce those secondary energy sources.

Industrial Sector: Comprises manufacturing industries that make up the largest part of the sector along with mining, construction, agriculture, fisheries, and forestry. Establishments in this sector range from steel mills, to small farms, to companies assembling electronic components. The SIC codes used to classify establishments as industrial are 1 through 39.

Kilowatthour (kWh): A unit of work or energy, measured as 1,000 watts (1 kilowatt) of power expended for 1 hour. Once generated, one kWh is equivalent to 3,412 Btu.

Lease Condensate: A natural gas liquid recovered from gas-well gas (associated and nonassociated) in lease separators or field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons. Volumes are reported in terms of barrels of 42 U.S. gallons at atmospheric pressure and corrected to 60 degrees Fahrenheit.

Lease Separator: A facility located at the surface for the purposes of (1) separating casinghead gas from produced crude oil and water at the temperature and pressure conditions of the separator; and (2) separating gas from that portion of associated gas and nonassociated gas that liquefies at the temperature and pressure conditions of the separator.

Lignite: A brownish-black coal with a high percentage of inherent moisture and volatile matter content. Often referred to as brown coal.

Liquefied Petroleum Gases (LPG): Ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Local Distribution Company (LDC): A legal entity engaged primarily in the retail sale and/or delivery of natural gas through a distribution system that includes mainlines (that is, pipelines designed to carry large volumes of gas, usually located under roads or other major right-of-ways) and laterals (that is, pipelines of smaller diameter that connect the end user to the mainline). Since the restructuring of the gas industry, the sale of gas and/or delivery arrangements may be handled by other agents, such as producers, brokers, and marketers that are referred to as "non-LDC."

Machine Drive (Motors): The direct process end use in which thermal or electric energy is converted into mechanical energy. Motors are found in almost every process in manufacturing. Therefore, when motors are found in equipment that is wholly contained in another end use (such as process cooling and refrigeration), the energy is classified there rather than in machine drive.

Manufacturing Division: One of 10 fields of economic activity defined by the *Standard Industrial Classification Manual.* The manufacturing division includes all establishments engaged in the mechanical or chemical transformation of materials or substances into new products. The other divisions of the U.S. economy are agriculture, forestry, fishing, hunting, and trapping; mining; construction; transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance, insurance, and real estate; personal, business, professional, repair, recreation, and other services; and public administration. The establishments in the manufacturing division constitute the universe for the MECS.

Manufacturing Establishment: An economic unit at a single physical location where mechanical or chemical transformations of materials or substances into new products are performed. Manufacturing operations are generally conducted in facilities described as plants, factories, or mills, and characteristically use power-driven machines and materials-handling equipment. In addition, the assembly of components of manufactured products is considered manufacturing, as in the blending of materials, such as lubricating oils, plastics, resins, or liquors. See **Establishment**.

Motor Gasoline: A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, obtained by blending appropriate refinery streams to form a fuel suitable for use in spark-ignition engines. Motor gasoline includes both leaded and unleaded grades of finished motor gasoline, blending components, and gasohol.

Natural Gas: A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in natural underground reservoirs at reservoir conditions. Natural gas may be subclassified as:

1. Associated Gas: Free natural gas, commonly known as gas-cap gas, that overlies and is in contact with crude oil in the reservoir.

2. Dissolved Gas: Natural gas that is in solution with crude oil in the reservoir at reservoir conditions.

3. Nonassociated Gas: Free natural gas that is not in contact with crude oil in the reservoir.

All natural gas volumes are reported in cubic feet at a pressure base of 14.73 pounds per square inch at 60 degrees Fahrenheit.

Natural Gas Liquids (NGL): Those portions of reservoir gas that are liquefied at the surface in field facility or gas processing plants. Some examples are ethane, propane, butanes, pentanes, natural gasoline, and condensate.

Natural Gas Utility: See **Local Distribution Company (LDC)**.

Net Electricity: Net electricity is estimated for each manufacturing establishment as the sum of purchased electricity, transfers in, and generation from noncombustible renewable resources minus the quantities of electricity sold and transferred offsite. Thus net electricity excludes the quantities of electricity generated or cogenerated onsite from combustible energy sources.

Nondurable Goods: Manufactured goods not designed to last, such as food.

Nonfuel Use (of energy): Use of energy as feedstock or raw material input.

Nonprocess Use: See **Direct Nonprocess End Use.**

Nonutility Power Producer: A legal entity that owns electric generating capacity and is not an electric utility. Includes qualifying cogenerators, qualifying small power producers, and other nonutility generators (including independent power producers) with a franchised area and not required to file forms listed in the *Code of Federal Regulations*, Title 18, Part 141. See **Electric Utility**.

North American Industrial Classification System (NAICS): A new classification scheme, developed by the Office of Management and Budget to replace the Standard Industrial Classification (SIC) System, that categorizes establishments according to the types of production processes they primarily use.

Offsystem (natural gas): Natural gas that is transported to the end user by the company making final delivery of the gas to the end user. The end user purchases the gas from another company, such as a producer or marketer, not from the delivering company (typically a local distribution company or a pipeline company).

Onsite Transportation: The direct nonprocess end use that includes energy used in vehicles and transportation equipment that primarily consume energy within the boundaries of the establishment. Energy used in vehicles that are found primarily offsite, such as delivery trucks, is not measured by the MECS.

Onsystem (natural gas): Natural gas that is sold (and transported) to the end user by the company making final delivery of the gas to the end user. Companies that make final delivery of natural gas are typically local distribution companies or pipeline companies.

Open-Access Transportation Service: Transportation service, provided by interstate natural gas pipeline companies, that is nondiscriminatory. That is, the pipeline company must provide the same transportation services to any creditworthy customer (subject to the availability of capacity), whether the customer purchases natural gas from the pipeline company or not.

Petrochemical Feedstock: Chemical feedstocks derived from petroleum and used principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics.

Petroleum Coke: A solid residue, high in carbon content and low in hydrogen, which is the final product of thermal decomposition in the condensation process in cracking crude oil. Petroleum coke can yield almost pure carbon or artificial graphite suitable for the production of carbon or graphite electrodes, structural graphite, motor brushes, dry cells, and similar products.

Plant: Commonly used as a synonym for an establishment. However, the term can also be used to refer to a particular process within an establishment.

Process Cooling and Refrigeration: The direct process end use in which energy is used to lower the temperature of substances involved in the manufacturing process. Examples include freezing processed meats for later sale in the food industry and lowering the temperature of chemical feedstocks below ambient temperature for use in reactions in the chemical industries. Not included are uses such as air-conditioning for personal comfort and cafeteria refrigeration. See **Manufacturing Establishment**.

Process Heating: The direct process end use in which energy is used to raise the temperature of substances involved in the manufacturing process. Examples are many and include the use of heat to melt scrap for electric-arc furnaces in steel-making, to separate components of crude oil in petroleum refining, to dry paint in automobile manufacturing, and to cook packaged foods. Not included are heat used for heating of buildings or for cafeteria and personal cooking. See **Manufacturing Establishment**.

Process Use: See **Direct Process End Use.**

Propane (C_3H_8): A normally gaseous, straight-chain, paraffinic hydrocarbon extracted from natural gas or refinery gas streams. In the manufacturing sector, it is used as a petrochemical feedstock.

Propylene (C_3H_6): A normally gaseous olefinic hydrocarbon recovered from refinery processes or petrochemical processes. In the manufacturing sector, propylene is used primarily as a petrochemical feedstock.

Public Utility Regulatory Policies Act of 1978 (PURPA): One part of the National Energy Act of 1978, this legislation contains measures designed to encourage the conservation of energy, more efficient use of resources, and equitable rates. Principal among those measures were suggested retail rate reforms and new incentives for production of electricity by cogenerators and users of renewable resources. The authority for implementing several key PURPA programs is held by an independent regulatory agency within the U.S. Department of Energy.

Pulping Liquor (Black Liquor): The alkaline spent liquor removed from the digesters in the process of chemically pulping wood. After evaporation, the liquor is burned as a fuel in a recovery furnace that permits the recovery of certain basic chemicals.

Quadrillion Btu: Equivalent to 10^{15} Btu.

Real Dollars: Real dollars are currency in terms of the goods and services the currency can buy. In essence, real dollars are dollars that have been adjusted for inflation. In this report, 1991 and 1994 dollars were first converted to real 1992 dollars by dividing, or "deflating," the nominal dollars by the chain-type price indices for gross domestic product for 1991 and 1994, respectively. Then, because real 1994 dollars were used, the real 1992 dollars were divided by the 1994 price index.

Refinery: A plant, device, or process that heats crude oil so that it separates into chemical components, which are then distilled off as more usable substances.

Relative Standard Error (RSE): A percentage measure of the precision of a survey statistic. The RSE is defined as the standard error of a survey estimate divided by the survey estimate and multiplied by 100. The standard error is the square root of the variance.

Renewable Energy: Energy obtained from essentially inexhaustible sources, which are not necessarily combustible. Combustible sources of renewable energy include wood harvested directly from trees, tree bark, and wood waste. Noncombustible sources include solar power, wind power, hydropower, and geothermal power.

Residual Fuel Oil: The general classification for the heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. The classification includes No. 5 (light and heavy), No. 6 (including heavy-grade, so called Bunker C oil), and Navy Special fuel oil.

Roundwood: Wood cut specifically for use as a fuel.

Short Ton: A unit of weight equal to 2,000 pounds.

Solar Energy: The radiant energy of the sun, which can be converted into other forms of energy, such as heat or electricity.

Spot Market (natural gas): A market in which natural gas is bought and sold for immediate or very near-term delivery, usually for a period of 30 days or less. The transaction does not imply a continuing arrangement between the buyer and the seller. A spot market is more likely to develop at a location with numerous pipeline interconnections, thus allowing for a large number of buyers and sellers. The Henry Hub in southern Louisiana is the best known spot market for natural gas.

Standard Industrial Classification (SIC): A classification scheme, developed by the Office of Management and Budget, that categorizes establishments according to the types of goods they primarily produce.

Still Gas (refinery gas): Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes, the principal constituents of which are hydrogen, methane, ethane, ethylene, propane, propylene, butanes, butylene, etc. Still gas is used as a petrochemical feedstock and as a fuel in refineries.

Storage Capacity: Includes, for the purposes of the MECS, any volumetric capacity (including tank tops and tank bottoms) that is on the establishment site even if it is dedicated or leased for the storage of an energy source by other establishments.

Subbituminous Coal: A dull, black coal of intermediate rank between lignite and bituminous coal. Subbituminous coal, like bituminous coal, is used as a fuel.

Total Inputs of Energy for Heat, Power, and Electricity Generation: Use of energy in the production of heat, steam, power, or the generation of electricity.

Turbine: A machine for generating rotary mechanical power from the energy of a stream of fluid (such as water, steam, or hot gas). Turbines convert kinetic energy to mechanical energy through the principles of impulse and reaction or a mixture of the two.

Waste Materials: Otherwise discarded combustible materials that, when burned, produce energy for such purposes as space heating and electric power generation. The size of the waste may be reduced by shredders, grinders, or hammermills. Noncombustible materials, if any, may be removed. The waste may be dried and then burned, either alone or in combination with fossil fuels.

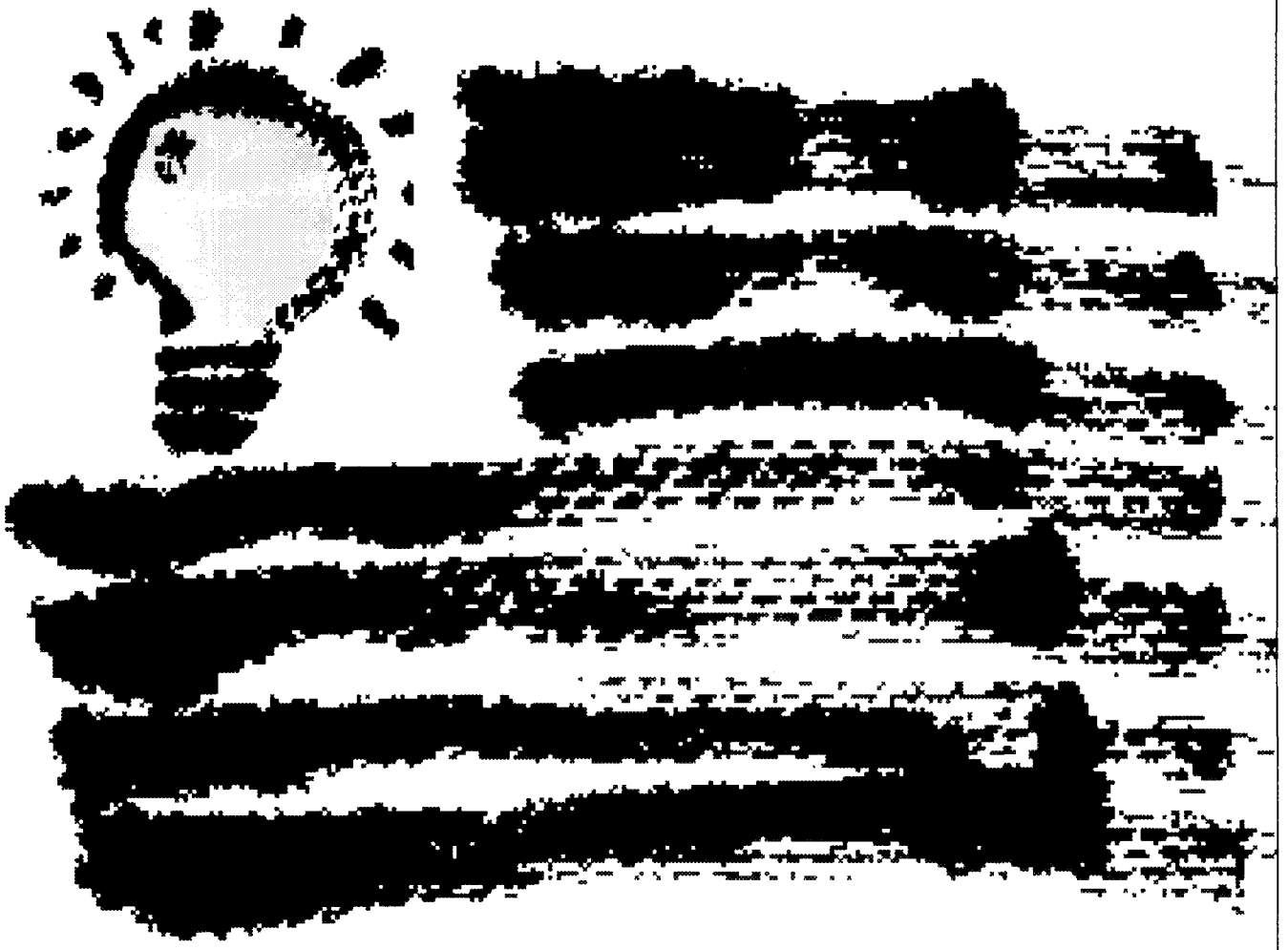
Waste Oils and Tar: Petroleum-based materials that are worthless for any purpose other than fuel use.

Wind Energy: Energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators. Wind pushes against sails, vanes, or blades radiating from a central rotating shaft.

Wood Energy: Wood and wood products used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, pulp waste, and spent pulping liquor.

Wood Waste: Wood byproducts used as a fuel. Included are limb wood, wood chips, bark, sawdust, forest residues, charcoal, and pulp waste.

ENERGY AWARENESS



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