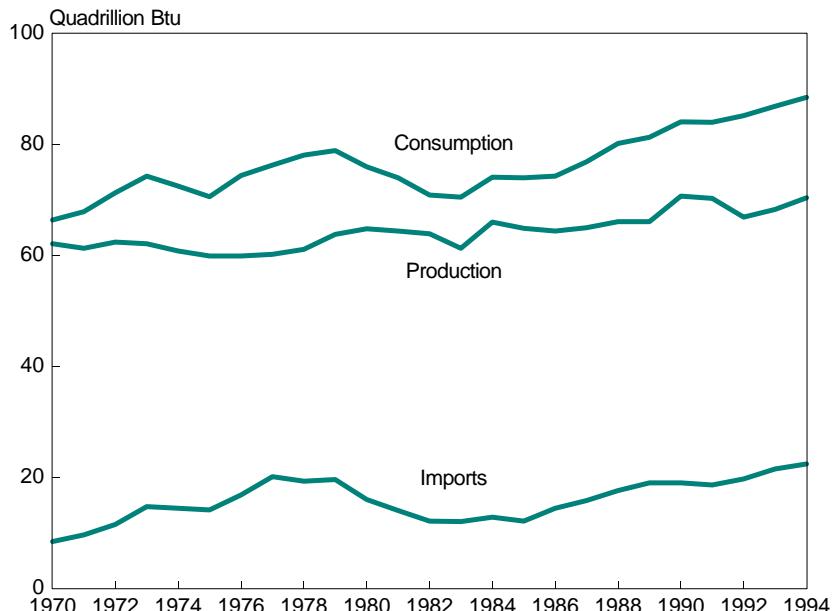


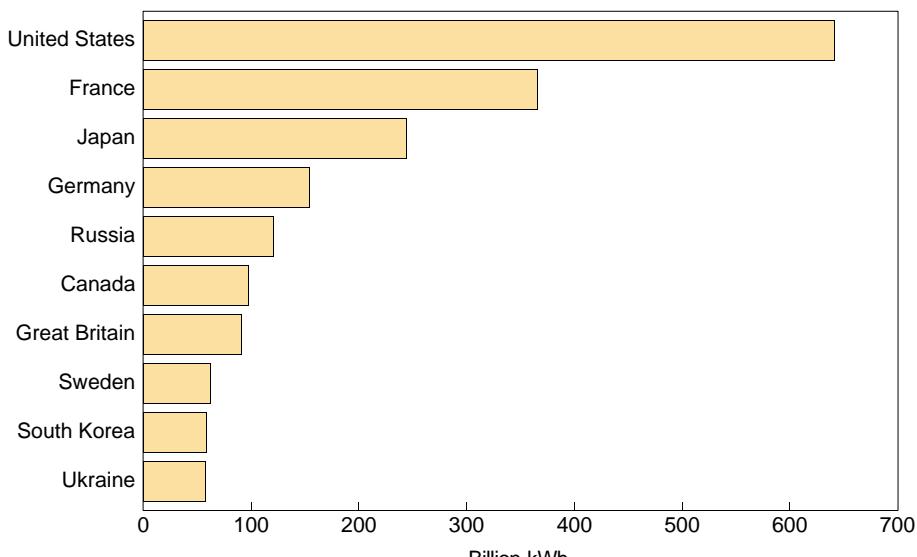
Figure 19.1  
**Energy Supply and Disposition: 1970 to 1994**



Source: Chart prepared by U.S. Bureau of the Census. For data, see table 913.

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Figure 19.2  
**Commercial Nuclear Power Generation—  
Top 10 Countries: 1993**



Source: Chart prepared by U.S. Bureau of the Census. For data, see table 945.

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## Section 19

# Energy

This section presents statistics on fuel resources, energy production and consumption, electric energy, hydroelectric power, nuclear power, solar energy, wood energy and the electric and gas utility industries. The principal sources are the U.S. Department of Energy's Energy Information Administration (EIA), the Edison Electric Institute, Washington, DC, and the American Gas Association, Arlington, VA. For additional data on transportation, see section 21; on fuels, see section 24; and on energy-related housing characteristics, see section 25.

The EIA, in its *Annual Energy Review*, provides statistics and trend data on energy supply, demand, and prices. Information is included on petroleum and natural gas, coal, electricity, hydroelectric power, nuclear power, solar, wood, and geothermal energy. Among its annual reports are *Annual Energy Review*, *Electric Power Annual*, *Natural Gas Annual*, *Petroleum Supply Annual*, *State Energy Data Report*, *State Energy Price and Expenditure Report*, *Financial Statistics of Selected Electric Utilities*, *Performance Profiles of Major Energy Producers*, *Annual Energy Outlook*, and *International Energy Annual*. These various publications contain State, national, and international data on production of electricity, net summer capability of generating plants, fuels used in energy production, energy sales and consumption, and hydroelectric power. The EIA also issues the *Monthly Energy Review*, which presents current supply, disposition, and price data, and monthly publications on petroleum, coal, natural gas, and electric power. Data on residential energy consumption, expenditures, and conservation activities are available from EIA's Residential Energy Consumption Survey and are published triennially in *Residential Energy Consumption Survey: Consumption and Expenditures*, and *Residential Energy Consumption Survey: Housing Characteristics*, and several other reports.

The Edison Electric Institute's monthly bulletin and annual *Statistical Year Book of the Electric Utility Industry for the Year* contain data on the distribution of electric energy by public utilities; information on the

### In Brief

Renewable energy sources provided 6.3 quadrillion Btu's in 1994, which represented 7.1 percent of U.S. consumption.

Crude oil imports surpassed domestic production for the second year in a row in 1995 with 7.2 million barrels per day compared to 6.5 for production.

Net generation of electric energy by utilities reached a record 3.0 trillion kWh in 1995.

electric power supply, expansion of electric generating facilities, and the manufacture of heavy electric power equipment is presented in the annual *Year End Summary of the Electric Power Situation in the United States*. The American Gas Association, in its monthly and quarterly bulletins and its yearbook, *Gas Facts*, presents data on gas utilities, including sales, revenues, customers, prices, and other financial and operating statistics.

**Btu conversion factors.**—Various energy sources are converted from original units (e.g., short tons, cubic feet, barrels, kilowatt-hours) to the thermal equivalent using British thermal units (Btu). A Btu is the amount of energy required to raise the temperature of 1 pound of water 1 degree Fahrenheit (F) at or near 39.2 degrees F. Factors are calculated annually from the latest final annual data available; some are revised as a result. The following list provides conversion factors used in 1995 for production and consumption, in that order, for various fuels: Petroleum, 5.800 and 5.358 mil. Btu per barrel; total coal, 21.278 and 20.852 mil. Btu per short ton; and natural gas (dry), 1,028 Btu per cubic foot for both. The factors for the production of nuclear power and geothermal power were 10,676 and 20,914 Btu per kilowatt-hour, respectively. The fossil fuel steam-electric power plant generation factor of 10,272 Btu per kilowatt-hour was used for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

## Energy

## No. 913. Energy Supply and Disposition, by Type of Fuel: 1970 to 1994

[In quadrillion British thermal units (Btu). For Btu conversion factors, see text, section 19]

TYPE OF FUEL	1970	1973	1975	1980	1985	1988	1989	1990	1991	1992	1993	1994
<b>Production</b>	<b>62.1</b>	<b>62.1</b>	<b>59.9</b>	<b>64.8</b>	<b>64.9</b>	<b>66.1</b>	<b>66.1</b>	<b>70.7</b>	<b>70.3</b>	<b>69.9</b>	<b>68.3</b>	<b>70.4</b>
Crude oil <sup>2</sup>	20.4	19.5	17.7	18.3	19.0	17.3	16.1	15.6	15.7	15.2	14.5	14.0
Natural gas liquids	2.5	2.6	2.4	2.3	2.2	2.3	2.2	2.2	2.3	2.4	2.4	2.4
Natural gas	21.7	22.2	19.6	19.9	17.0	17.6	17.9	18.4	18.2	18.4	18.7	19.4
Coal	14.6	14.0	15.0	18.6	19.3	20.7	21.4	22.5	21.6	21.6	20.2	22.0
Nuclear electric power	0.2	0.9	1.9	2.7	4.2	5.7	5.7	6.2	6.6	6.6	6.5	6.8
Renewable energy	2.6	2.9	3.2	3.0	3.2	2.6	3.0	16.0	6.0	5.8	6.0	5.9
Hydroelectric power	2.6	2.9	3.2	2.9	3.0	2.3	2.8	3.0	3.0	2.6	2.9	2.7
Geothermal	(Z)	(Z)	0.1	0.1	0.2	0.2	0.2	10.3	0.3	0.3	0.3	0.3
Biofuels <sup>4</sup>	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	12.6	2.6	2.8	2.7	2.8
<b>Net trade</b> <sup>5</sup>	<b>-5.7</b>	<b>-12.7</b>	<b>-11.8</b>	<b>-12.3</b>	<b>-7.9</b>	<b>-13.1</b>	<b>-14.2</b>	<b>-14.1</b>	<b>-13.4</b>	<b>-14.4</b>	<b>-17.2</b>	<b>-18.3</b>
Exports	2.7	2.1	2.4	3.7	4.2	4.4	4.8	4.9	5.2	5.0	4.4	4.1
Coal	1.9	1.4	1.8	2.4	2.4	2.5	2.6	2.8	2.9	2.7	2.0	1.9
Natural gas	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
Petroleum	0.6	0.5	0.4	1.2	1.7	1.7	1.8	1.8	2.1	2.0	2.1	2.0
Imports	8.4	14.7	14.1	16.0	12.1	17.6	19.0	19.0	18.6	19.7	21.5	22.4
Coal	(Z)	(Z)	(Z)	(Z)	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Natural gas <sup>6</sup>	0.9	1.1	1.0	1.0	1.0	1.3	1.4	1.6	1.8	2.2	2.4	2.6
Petroleum	7.5	13.5	13.0	14.7	10.6	15.8	17.2	17.1	16.3	17.0	18.5	19.0
<b>Consumption</b>	<b>66.4</b>	<b>74.3</b>	<b>70.6</b>	<b>76.0</b>	<b>74.0</b>	<b>80.2</b>	<b>81.3</b>	<b>84.1</b>	<b>84.0</b>	<b>85.2</b>	<b>86.9</b>	<b>88.5</b>
Petroleum <sup>7</sup>	29.5	34.8	32.7	34.2	30.9	34.2	34.2	33.6	32.9	33.5	33.8	34.7
Natural gas <sup>8</sup>	21.8	22.5	20.0	20.4	17.8	18.6	19.4	19.3	19.6	20.1	20.8	21.2
Coal	12.3	13.0	12.7	15.4	17.5	18.8	18.9	19.1	18.8	18.9	19.4	19.5
Nuclear electric power	0.2	0.9	1.9	2.7	4.2	5.7	5.7	6.2	6.6	6.6	6.5	6.8
Renewable energy	2.7	3.1	3.3	3.2	3.6	2.9	3.1	16.0	6.2	6.0	6.3	6.3
Hydroelectric power <sup>4</sup>	2.7	3.0	3.2	3.1	3.4	2.7	2.9	3.0	3.2	2.9	3.2	3.1
Geothermal	(Z)	(Z)	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3
Biofuels <sup>4</sup>	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	2.6	2.6	2.8	2.7	2.8

Z Less than 50 trillion. <sup>1</sup> There is a discontinuity in this time series between 1989 and 1990 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1990. <sup>2</sup> Includes lease condensate. <sup>3</sup> There is a discontinuity in this time series between 1989 and 1990; beginning in 1990, pumped storage is removed and expanded coverage of industrial use of hydroelectric power is included. <sup>4</sup> Includes wood, wood waste, peat, wood liquors, railroad ties, pitch, wood sludge, municipal solid waste, agricultural waste, straw, tires, landfill gases, fish oils, and/or other waste. <sup>5</sup> Exports minus imports. <sup>6</sup> Includes imports of crude oil for the Strategic Petroleum Reserve, which began in 1977. Includes imports of unfinished oils and natural gas plant liquids. <sup>7</sup> Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel. <sup>8</sup> Includes supplemental gaseous fuels. <sup>9</sup> Includes net imports of electricity.

Source: U.S. Energy Information Administration, *Annual Energy Review*.

## No. 914. Energy Supply and Disposition, by Type of Fuel—Estimates, 1993 to 1995, and Projections, 2000 to 2015

[Quadrillion Btu per year, except percent change. Projections are "reference" or mid-level forecasts. See report for methodology and assumptions used in generating projections]

TYPE OF FUEL	1993	1994	1995	2000	2005	2010	2015
<b>Production, total</b>	<b>69.64</b>	<b>72.08</b>	<b>71.79</b>	<b>71.87</b>	<b>74.50</b>	<b>77.79</b>	<b>81.08</b>
Crude oil and lease condensate	14.50	14.10	13.84	11.96	11.10	11.51	12.30
Natural gas plant liquids	2.49	2.47	2.43	2.54	2.74	2.97	3.20
Natural gas	18.97	19.41	19.47	20.24	21.89	23.52	25.72
Coal	20.23	22.01	21.89	22.59	23.95	24.94	26.14
Nuclear power	6.52	6.84	7.02	7.09	6.93	6.52	4.63
Renewable energy and other <sup>1,2</sup>	6.94	7.25	7.13	7.45	7.88	8.33	9.09
<b>Imports, total</b>	<b>21.38</b>	<b>22.53</b>	<b>23.25</b>	<b>27.70</b>	<b>30.43</b>	<b>31.65</b>	<b>32.25</b>
Crude oil <sup>3</sup>	14.76	15.33	16.33	19.67	21.13	21.05	20.87
Petroleum products	3.73	3.92	3.53	4.03	5.23	6.16	6.40
Natural gas	2.39	2.60	2.78	3.30	3.48	3.84	4.42
Other imports <sup>5</sup>	0.50	0.67	0.62	0.69	0.59	0.61	0.56
<b>Exports, total</b>	<b>4.23</b>	<b>4.04</b>	<b>4.33</b>	<b>4.56</b>	<b>4.56</b>	<b>4.74</b>	<b>5.38</b>
Petroleum	2.12	2.00	2.28	2.12	1.88	1.77	1.91
Natural gas	0.15	0.16	0.17	0.27	0.31	0.32	0.33
Coal	1.96	1.88	1.88	2.16	2.37	2.66	3.14
<b>Consumption, total</b>	<b>87.38</b>	<b>89.14</b>	<b>90.60</b>	<b>95.07</b>	<b>100.38</b>	<b>104.69</b>	<b>108.02</b>
Petroleum products <sup>7</sup>	33.83	34.56	34.88	36.88	39.12	40.68	41.69
Natural gas	20.80	21.36	21.95	23.00	24.79	26.76	29.52
Coal	19.55	19.65	19.66	20.67	21.83	22.55	23.27
Nuclear power	6.52	6.84	7.02	7.09	6.93	6.52	4.63
Renewable energy/other <sup>1,8</sup>	6.69	6.73	7.08	7.43	7.71	8.18	8.92

<sup>1</sup> Includes utility and nonutility electricity from hydroelectric, wood and wood waste, municipal solid and wood waste, municipal solid waste, other biomass, wind, photovoltaic and solar thermal sources; nonelectric energy from renewable sources, such as active and passive solar systems, and wood; and both the ethanol and gasoline components of E85, but not the ethanol components of blends less than 85 percent. Excludes nonmarketed blends less than 85 percent. Excludes nonmarketed renewable energy. <sup>2</sup> Includes liquid hydrogen, methanol, supplemental natural gas, and some domestic inputs to refineries. <sup>3</sup> Includes imports of crude oil for the Strategic Petroleum Reserve. <sup>4</sup> Includes imports of finished petroleum products, imports of unfinished oils, alcohols, ethers, and blending components. <sup>5</sup> Includes coal, coal coke (net), and electricity (net). <sup>6</sup> Includes crude oil and petroleum products. <sup>7</sup> Includes natural gas plant liquids, crude oil consumed as a fuel, and nonpetroleum based liquids for blending, such as ethanol. <sup>8</sup> Includes net electricity imports, methanol, and liquid hydrogen.

Source: U.S. Energy Information Administration, *Annual Energy Outlook 1996*.

**No. 915. Selected Energy Indicators—Summary: 1970 to 1995**

[Btu=British thermal unit. For Btu conversion factors, see text, section 19. Minus sign (-) indicates decrease]

ITEM	1970	1973	1975	1980	1985	1988	1989	1990	1991	1992	1993	1994	1995
AVERAGE ANNUAL PERCENT CHANGE <sup>1</sup>													
Gross domestic product <sup>2</sup>	3.3	1.9	-0.3	-0.1	0.7	1.2	3.3	1.3	-1.0	2.7	2.2	3.4	2.0
Energy production, total <sup>3 4</sup>	4.6	-0.2	-1.8	0.3	-0.3	0.6	-	2.6	-0.5	-0.9	-2.6	3.3	0.6
Crude oil <sup>5</sup>	4.2	-0.9	-4.7	0.2	0.2	-0.8	-6.9	-3.4	0.8	-3.1	-4.9	-2.7	-2.0
Natural gas	6.4	-	-6.1	-0.2	-1.2	0.9	1.4	2.8	-0.7	0.8	1.1	3.6	-0.2
Coal	2.2	-0.2	3.4	1.2	-0.4	1.0	2.9	5.1	-3.9	(Z)	-6.5	8.8	-0.7
Energy consumption, total <sup>3 4</sup>	4.6	1.4	-2.6	-0.8	-	1.4	1.4	-0.1	-0.2	1.3	2.1	2.1	1.8
Petroleum products	4.8	1.9	-3.1	-1.6	-0.1	1.3	-	-1.9	-2.1	2.1	0.9	2.6	-0.3
Natural gas (dry)	6.5	-0.3	-6.0	-0.3	-0.7	1.5	4.4	-0.5	1.6	2.6	3.4	2.4	4.0
Coal	1.1	2.4	-1.2	0.5	0.5	1.5	0.4	0.9	-1.7	0.5	2.9	0.6	0.4
PER CAPITA <sup>6</sup> (mil. Btu)													
Energy production	304	294	278	285	273	270	268	272	268	262	253	259	258
Energy consumption	327	351	327	334	311	328	329	326	322	322	325	329	332
Energy consumption per dollar of GDP <sup>2</sup> (1,000 Btu)	19.6	19.0	18.3	16.5	13.9	13.7	13.4	13.2	13.3	13.2	13.1	13.0	12.9

- Represents zero. Z Less than .05 percent. <sup>1</sup> Represents percent change from immediate prior year; for example, 1970, change from 1965. Percent change derived from Btu values. <sup>2</sup> Gross domestic product in chained (1992) dollars. For definition of chained, see text, section 14. <sup>3</sup> Includes types of fuel or power, not shown separately. <sup>4</sup> Due to a lack of consistent historical data, some renewable energy sources are not included. <sup>5</sup> Includes lease condensate. <sup>6</sup> Based on resident population estimated as of July 1.

Source: U.S. Energy Information Administration, *Annual Energy Review*, and *Monthly Energy Review*.**No. 916. Energy Consumption, by End-Use Sector: 1970 to 1994**

[There exists a discontinuity in the series between 1989 and 1990 due to the expanded coverage of non-electric utility use of renewable energy beginning 1990. Btu=British thermal units. For Btu conversion factors, see text, section 19]

YEAR	Total con- sumption (quad. Btu)	Residential and commercial (quad. Btu)	Industrial and miscel- laneous (quad. Btu)	Transporta- tion (quad. Btu)	PERCENT OF TOTAL		
					Residential and commercial	Industrial and miscel- laneous	Transpor- ta- tion
1970	66.4	21.7	28.6	16.1	32.7	43.1	24.2
1973	74.3	24.1	31.5	18.6	32.5	42.4	25.0
1975	70.6	23.9	28.4	18.3	33.9	40.3	25.9
1976	74.4	25.0	30.2	19.1	33.6	40.7	25.7
1977	76.3	25.4	31.1	19.8	33.3	40.7	26.0
1978	78.1	26.1	31.4	20.6	33.4	40.2	26.4
1979	78.9	25.8	32.6	20.5	32.7	41.3	25.9
1980	76.0	25.7	30.6	19.7	33.8	40.3	25.9
1981	74.0	25.2	29.2	19.5	34.1	39.5	26.4
1982	70.9	25.6	26.1	19.1	36.2	36.9	26.9
1983	70.5	25.6	25.8	19.1	36.3	36.5	27.1
1984	74.1	26.5	27.9	19.8	35.7	37.6	26.7
1985	74.0	26.7	27.2	20.1	36.1	36.8	27.1
1986	74.3	26.9	26.6	20.8	36.1	35.8	28.0
1987	76.9	27.6	27.8	21.5	35.9	36.2	27.9
1988	80.2	28.9	29.0	22.3	36.1	36.1	27.8
1989	81.3	29.4	29.4	22.6	36.1	36.1	27.7
1990	84.1	29.4	32.0	22.6	35.0	38.1	26.9
1991	84.0	30.1	31.7	22.2	35.9	37.7	26.4
1992	85.2	29.8	32.8	22.5	35.0	38.5	26.5
1993	86.9	30.8	33.1	23.0	35.5	38.1	26.4
1994	88.5	31.3	33.7	23.5	35.4	38.1	26.5

Source: U.S. Energy Information Administration, *Annual Energy Review*.





### No. 919. Energy Expenditures and Average Fuel Prices, by Source and Sector: 1970 to 1993

[For definition of Btu, see text, section 19. End-use sector and electric utilities exclude expenditures and prices on energy sources such as hydropower, solar, wind, and geothermal. Also excludes expenditures for reported amounts of energy consumed by the energy industry for production, transportation, and processing operations]

SOURCE AND SECTOR	1970	1973	1975	1980	1985	1988	1989	1990	1991	1992	1993
EXPENDITURES (mil. dol.)											
Total <sup>1,2</sup>	82,579	111,638	171,782	373,900	435,444	407,597	434,354	469,785	467,408	472,699	493,337
Natural gas	10,891	13,933	22,061	51,061	72,938	61,089	65,383	64,102	64,697	68,401	75,982
Petroleum products <sup>2</sup>	48,088	65,305	103,858	238,408	223,196	189,261	206,277	234,826	222,298	221,701	225,842
Motor gasoline	31,596	39,667	59,446	124,408	118,044	103,211	112,585	126,472	123,051	125,158	130,021
Coal	4,594	6,251	13,047	22,648	29,719	28,371	28,106	28,381	27,866	27,417	27,857
Electricity sales	23,351	33,780	50,680	98,098	149,242	162,070	169,340	176,742	184,822	186,956	196,585
Residential sector	20,083	27,078	36,844	68,825	98,307	102,773	108,423	109,266	114,738	115,148	124,430
Commercial sector	10,668	15,107	22,835	46,881	70,263	71,579	75,467	78,922	81,482	82,408	86,736
Industrial sector	16,458	23,549	41,169	94,520	105,723	91,315	93,827	101,057	99,767	102,259	103,853
Transportation sector <sup>2</sup>	35,370	45,904	70,934	163,674	161,150	141,930	156,637	180,540	171,421	172,884	178,318
Motor gasoline	30,525	38,598	57,992	121,809	115,201	100,988	110,168	123,775	120,557	122,700	128,116
Electric utilities	4,316	7,817	16,396	37,435	42,558	37,435	38,895	38,443	36,501	35,764	36,653
AVERAGE FUEL PRICES (dol. per mil. Btu)											
All sectors	1.65	2.02	3.33	6.91	8.42	7.30	7.69	8.38	8.33	8.26	8.42
Residential sector	2.12	2.73	3.83	7.55	11.14	10.90	11.26	12.14	12.34	12.27	12.52
Commercial sector	1.97	2.56	4.09	7.88	11.71	10.91	11.40	12.03	12.21	12.33	12.65
Industrial sector	0.83	1.09	2.20	4.71	6.09	5.03	5.11	5.40	5.35	5.3	5.30
Transportation sector	2.31	2.57	4.02	8.61	8.26	6.56	7.16	8.27	7.98	7.92	8.03
Electric utilities	0.32	0.46	0.96	1.75	1.85	1.45	1.48	1.46	1.37	1.34	1.35

<sup>1</sup> Includes electricity sales; excludes electricity generation. <sup>2</sup> Includes sources or fuel types not shown separately.

Source: U.S. Energy Information Administration, *State Energy Price and Expenditure Report*, annual.

### No. 920. Residential Energy Consumption, Expenditures, and Average Price, 1980 to 1993, and by Region, 1993

[For period April to March for 1980-1985; January to December for 1987 to 1993. Excludes Alaska and Hawaii in 1980. Covers occupied units only. Excludes household usage of gasoline for transportation and the use of wood or coal. Based on Residential Energy Consumption Survey; see Appendix III. For composition of regions, see table 27. Btu=British thermal unit; see text, section 19.]

TYPE OF FUEL	Unit	1980	1983	1985	1987	1990	1993				
							Total	North-east	Mid-west	South	West
CONSUMPTION											
Total	Quad. Btu	9.74	8.62	9.04	9.13	9.22	10.01	2.38	3.13	2.95	1.55
Avg. per household	Mil. Btu	126	103	105	101	98	103.6	122.4	134.3	87.9	76.0
Natural gas	Quad. Btu	5.31	4.77	4.98	4.83	4.86	5.27	1.11	2.07	1.18	0.91
Electricity	Quad. Btu	2.42	2.42	2.48	2.76	3.03	3.28	0.47	0.74	1.51	0.56
Fuel oil, kerosene	Quad. Btu	1.71	1.14	1.26	1.22	1.04	1.07	0.78	0.13	0.13	0.03
Liquid petroleum gas	Quad. Btu	0.31	0.29	0.31	0.32	0.28	0.38	0.03	0.19	0.13	0.04
EXPENDITURES											
Total	Bil. dol.	63.2	87.8	97.0	97.7	110.2	123.91	29.72	31.12	43.67	19.41
Avg. per household	Dollars	815	1,048	1,123	1,080	1,172	1,282	1,526	1,336	1,304	953
Natural gas	Bil. dol.	17.8	27.1	29.8	26.1	27.3	32.04	8.60	11.13	7.24	5.07
Electricity	Bil. dol.	32.6	48.4	54.5	61.6	71.5	81.08	15.76	17.55	34.08	13.69
Fuel oil, kerosene	Bil. dol.	10.7	9.6	9.6	7.2	8.3	6.98	5.00	0.84	0.9	0.24
Liquid petroleum gas	Bil. dol.	2.1	2.7	3.1	2.8	3.1	3.81	0.35	1.59	1.46	0.41
AVERAGE PRICE											
Total	Dol./mil. Btu	6.49	10.18	10.73	10.71	12.0	12.38	12.47	9.94	14.82	12.54
Natural gas	Dol./mil. Btu	3.36	5.67	5.97	5.41	5.6	6.07	7.73	5.38	6.13	5.55
Electricity	Dol./mil. Btu	13.46	19.98	21.94	22.34	23.6	24.69	33.55	23.67	22.61	24.23
Fuel oil, kerosene	Dol./mil. Btu	6.29	8.42	7.64	5.89	7.9	6.5	6.4	6.5	6.9	8.0
Liquid petroleum gas	Dol./mil. Btu	6.71	9.42	9.91	8.91	11.2	10.04	13.90	8.55	11.13	10.99

Source: U.S. Energy Information Administration, *Household Energy Consumption and Expenditures*, 1993, and prior reports. Survey not conducted in 1984, 1986, 1988, and 1989.

**No. 921. Residential Energy Consumption and Expenditures, by Type of Fuel and Selected Household Characteristic: 1993**

[For period January through December. Quad.=quadrillion. See headnote, table 920]

CHARACTERISTIC	CONSUMPTION (Btu's)					EXPENDITURES				
	Total <sup>1</sup> (quad.)	Avg. per house- hold <sup>1</sup> (mil.)	Natural gas (quad.)	Elec- tricity (quad.)	Fuel oil <sup>2</sup> (quad.)	Total <sup>1</sup> (bil. dol.)	Avg. per house- hold <sup>1</sup> (dol.)	Natural gas (bil. dol.)	Elec- tricity (bil. dol.)	Fuel oil <sup>2</sup> (bil. dol.)
<b>Total households . . . . .</b>	<b>10.01</b>	<b>104</b>	<b>5.27</b>	<b>3.28</b>	<b>1.02</b>	<b>123.9</b>	<b>1,282</b>	<b>32.04</b>	<b>81.08</b>	<b>6.61</b>
Single family detached . . . . .	7.21	121	3.77	2.34	0.78	87.0	1,462	22.23	56.44	5.20
Single family attached . . . . .	0.70	96	0.41	0.24	0.05	9.3	1,266	2.65	6.22	0.34
Two-to-four unit building . . . . .	0.80	100	0.54	0.17	0.09	8.9	1,112	3.56	4.72	0.58
Five-or-more unit building . . . . .	0.83	52	0.43	0.32	0.08	12.0	740	2.84	8.76	0.37
Mobile home . . . . .	0.46	82	0.14	0.21	0.02	6.7	1,203	0.76	4.93	0.12
Year house built:										
1939 or earlier . . . . .	2.63	129	1.55	0.51	0.43	27.0	1,325	9.60	13.34	2.75
1940 to 1949 . . . . .	0.77	112	0.44	0.20	0.10	8.6	1,240	2.70	4.91	0.64
1950 to 1959 . . . . .	1.49	114	0.85	0.42	0.19	18.1	1,387	5.28	11.22	1.28
1960 to 1969 . . . . .	1.55	103	0.90	0.49	0.11	18.9	1,257	5.35	12.26	0.69
1970 to 1979 . . . . .	1.59	88	0.69	0.71	0.12	22.2	1,222	3.92	16.74	0.78
1980 to 1984 . . . . .	0.68	80	0.29	0.35	0.02	10.6	1,247	1.73	8.48	0.13
1985 to 1987 . . . . .	0.47	85	0.20	0.23	0.02	7.1	1,284	1.22	5.47	0.11
1988 to 1990 . . . . .	0.43	90	0.18	0.21	0.02	6.2	1,322	1.05	4.81	0.13
1991 to 1993 . . . . .	0.40	89	0.20	0.16	0.01	5.4	1,200	1.19	3.85	0.09
1993 family income:										
Less than \$5,000 . . . . .	0.32	80	0.18	0.1	0.03	4.0	991	1.14	2.52	0.18
\$5,000 to \$9,999 . . . . .	0.86	81	0.48	0.26	0.08	10.3	977	2.94	6.42	0.47
\$10,000 to \$14,999 . . . . .	1.00	90	0.58	0.29	0.09	11.7	1,051	3.51	7.17	0.58
\$15,000 to \$19,999 . . . . .	0.95	99	0.52	0.30	0.09	11.2	1,163	3.08	7.08	0.55
\$20,000 to \$24,999 . . . . .	0.84	97	0.43	0.28	0.08	10.3	1,182	2.62	6.75	0.51
\$25,000 to \$34,999 . . . . .	1.45	104	0.70	0.51	0.16	18.3	1,302	4.20	12.24	1.05
\$35,000 to \$49,999 . . . . .	1.90	109	0.96	0.65	0.21	24.1	1,379	5.87	16.18	1.36
\$50,000 to \$74,999 . . . . .	1.51	119	0.78	0.52	0.17	18.9	1,493	4.66	12.66	1.11
\$75,000 or more . . . . .	1.17	140	0.64	0.38	0.12	15.1	1,809	4.02	10.06	0.81

<sup>1</sup> Includes liquid petroleum gas not shown separately. <sup>2</sup> Includes kerosene.Source: U.S. Energy Information Administration, *Household Energy Consumption and Expenditures, 1993*.
**No. 922. Manufacturing Primary Energy Consumption for all Purposes, by Type of Fuel and Major Industry Group: 1991**

[In trillions of Btu. Estimates represented in this table are for the primary consumption of energy for heat and power and as feedstocks or raw material inputs. 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. Primary consumption excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting. Based on the 1991 Manufacturing Energy Consumption Survey and subject to sampling variability.]

INDUSTRY	SIC <sup>1</sup> code	Total	Net elec- tricity <sup>2</sup>	Residual fuel oil	Distil- late fuel oil <sup>3</sup>	Natural gas <sup>4</sup>	LPG	Coal	Coke and breeze	Other <sup>5</sup>
<b>All industries . . . . .</b>	<b>(X)</b>	<b>20,257</b>	<b>2,370</b>	<b>454</b>	<b>146</b>	<b>6,095</b>	<b>1,574</b>	<b>2,006</b>	<b>308</b>	<b>7,304</b>
Food and kindred products . . . . .	20	956	169	27	17	(D)	5	154	(D)	(D)
Tobacco products . . . . .	21	24	3	1	(Z)	4	(Z)	15	-	(Z)
Textile mill products . . . . .	22	274	101	12	6	108	2	31	-	13
Apparel and other textile products .	23	44	19	(S)	1	19	1	2	-	1
Lumber and wood products . . . . .	24	451	61	2	16	41	4	2	-	325
Furniture and fixtures . . . . .	25	68	17	1	1	19	1	4	-	26
Paper and allied products . . . . .	26	2,506	201	156	9	(D)	5	296	(D)	(D)
Printing and publishing . . . . .	27	108	53	(Z)	2	48	1	-	-	4
Chemicals and allied products . . . .	28	5,051	440	(D)	14	2,227	(D)	(D)	10	526
Petroleum and coal products . . . .	29	5,967	105	65	21	838	(D)	(D)	(D)	4,864
Rubber and misc. plastic products .	30	238	116	8	3	96	3	7	-	6
Leather and leather products . . . .	31	12	3	1	1	5	(Z)	(S)	-	1
Stone, clay, and glass products . . .	32	880	105	9	20	381	(D)	293	(D)	(D)
Primary metal industries . . . . .	33	2,467	499	(D)	11	708	(D)	853	278	72
Fabricated metal products . . . . .	34	307	102	3	6	175	4	5	(D)	(D)
Industrial machinery & equipment .	35	237	101	3	4	109	2	11	1	5
Electric and electronic equipment .	36	212	102	4	2	79	1	(D)	(D)	(D)
Transportation equipment . . . . .	37	323	118	12	7	133	2	(D)	(D)	17
Instruments and related products .	38	98	42	3	(D)	26	(S)	(D)	-	(D)
Misc. manufacturing industries . . .	39	32	12	1	(D)	15	(Z)	1	-	(S)

- Represents or rounds to zero. D Withheld to avoid disclosing data for individual establishments. S Withheld because Relative Standard Error is greater than 50 percent. X Not applicable. Z Less than 0.5 trillion Btu. <sup>1</sup> Standard Industrial Classification Code; see text, section 13. <sup>2</sup> Net electricity is obtained by aggregating purchases, transfers in, and generation from noncombustible renewable resources minus quantities sold and transferred out. Excludes electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal). <sup>3</sup> Includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels. <sup>4</sup> Includes natural gas obtained from utilities, transmission pipelines, and any other supplier such as brokers and producers. <sup>5</sup> Includes net steam, and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs.

Source: U.S. Energy Information Administration, *Manufacturing Energy Consumption 1991*.

### No. 923. Commercial Buildings—Energy Consumption and Expenditures, by Major Fuel Type Used: 1992

[Covers buildings using one or more major fuel. Excludes industrial buildings predominantly residential buildings, and buildings of less than 1,000 sq.ft. Based on a sample survey of building representatives and energy suppliers; therefore, subject to sampling variability. For characteristics of commercial buildings, see tables in section 25. Tril. = trillion]

TYPE OF FUEL	MAJOR FUEL CONSUMPTION				MAJOR FUEL EXPENDITURES			
	Total (tril. Btu)	Per building (mil. Btu)	Per square ft. (1,000 Btu)	Per worker (mil. Btu)	Total (mil. dol.)	Per building (1,000 dol.)	Per square ft. (dollars)	Per mil. Btu (dollars)
All buildings . . . . .	5,490	1,142	80.9	77.1	71,821	14.9	1.06	13.08
Energy sources (more than one may apply):								
Electricity . . . . .	5,490	1,190	82.5	77.1	71,817	15.6	1.08	13.08
Natural gas . . . . .	4,264	1,605	94.8	83.3	51,785	19.5	1.15	12.15
Fuel oil . . . . .	1,440	2,574	109.0	79.7	17,748	31.7	1.34	12.32
District heat . . . . .	839	8,872	160.0	117.5	9,106	96.3	1.74	10.85
District chilled water . . . . .	292	10,369	152.6	107.8	3,167	112.5	1.65	10.85
Propane . . . . .	220	653	64.9	76.3	3,561	10.6	1.05	16.18
Other . . . . .	67	411	43.3	50.9	992	6.1	0.64	14.78

Source: Energy Information Administration, *Commercial Buildings Energy Consumption and Expenditures, 1992*.

### No. 924. Commercial Buildings—Energy Consumption and Expenditures: 1992

[Covers buildings using one or more major fuel. Excludes industrial buildings, predominantly residential buildings, and buildings of less than 1,000 sq. ft. Based on a sample survey of building representatives and energy suppliers; therefore, subject to sampling variability. For characteristics of commercial buildings, see tables in section 25. For composition of regions, see table 27]

BUILDING CHARACTERISTIC	ALL BUILDINGS USING ANY MAJOR FUEL		CONSUMPTION (tril. Btu)			EXPENDITURES (mil. dol.)		
	Number (1,000)	Square feet (mil.)	Major fuel, total <sup>1</sup>	Elec- tricity	Natural gas	Major fuel, total <sup>1</sup>	Elec- tricity	Natural gas
All buildings . . . . .	4,615	66,538	5,490	2,609	2,174	71,821	57,619	9,901
Region:								
Northeast . . . . .	755	13,235	1,090	419	354	16,226	12,250	2,014
Midwest . . . . .	1,141	16,909	1,578	622	747	16,957	12,745	3,011
South . . . . .	1,874	23,979	1,825	1,002	697	22,843	19,097	2,998
West . . . . .	845	12,415	998	566	376	15,795	13,527	1,878
Year constructed:								
1899 or before . . . . .	169	1,721	118	38	62	1,447	1,029	281
1900 to 1919 . . . . .	244	3,401	213	67	102	2,516	1,711	516
1920 to 1945 . . . . .	681	8,385	666	217	310	7,534	5,263	1,442
1946 to 1959 . . . . .	839	10,135	800	332	355	9,797	7,477	1,665
1960 to 1969 . . . . .	757	12,473	1,125	528	426	14,532	11,617	1,903
1970 to 1979 . . . . .	945	13,781	1,261	629	528	16,459	13,659	2,187
1980 to 1989 . . . . .	855	14,153	1,133	689	345	16,834	14,510	1,668
1990 to 1992 . . . . .	127	2,489	173	109	48	2,702	2,354	239
Principal activity within building:								
Assembly <sup>2</sup> . . . . .	704	9,123	510	233	202	6,460	4,939	995
Education . . . . .	301	8,470	637	235	291	7,389	5,526	1,271
Food sales/services . . . . .	390	2,248	444	251	181	6,669	5,609	952
Health care . . . . .	63	1,763	403	138	189	3,733	2,640	662
Lodging . . . . .	154	2,891	463	189	193	5,459	4,030	929
Mercantile/services . . . . .	1,270	12,399	892	444	381	12,907	10,583	1,899
Office . . . . .	749	12,319	1,247	704	388	18,102	15,511	1,618
Public order and safety . . . . .	24	1,652	52	B	9	811	743	43
Warehouse . . . . .	685	11,179	527	253	196	6,750	5,386	939
Other . . . . .	65	1,124	184	78	84	1,954	1,479	302
Vacant . . . . .	210	3,371	131	47	61	1,585	1,172	290
Square footage:								
1,001 to 5,000 . . . . .	2,539	6,995	703	334	321	10,559	8,536	1,716
5,001 to 10,000 . . . . .	954	7,057	555	251	251	7,995	6,336	1,342
10,001 to 25,000 . . . . .	628	10,097	1,865	335	438	10,126	7,758	1,882
25,001 to 50,000 . . . . .	275	9,856	794	347	324	9,864	7,619	1,559
50,001 to 100,000 . . . . .	114	7,926	642	308	255	8,483	6,806	1,184
100,001 to 200,000 . . . . .	70	9,658	640	347	206	8,413	6,935	893
200,001 to 500,000 . . . . .	25	7,678	711	361	215	8,457	6,847	742
500,001 and over . . . . .	9	7,271	581	325	165	7,924	6,783	582

B Base figure too small to meet statistical standards for reliability of a derived figure. <sup>1</sup> Includes fuel oil, propane, and purchased steam not shown separately. <sup>2</sup> Includes public assembly, public order and safety, and religious worship.

Source: U.S. Energy Information Administration, *Commercial Buildings Energy Consumption and Expenditures, 1992*.

**No. 925. Fossil Fuel Prices in Current and Constant (1987) Dollars: 1970 to 1994**

[In cents per million British thermal units (Btu), except as indicated. All fuel prices taken as close to the point of production as possible. See text, section 19, for explanation of Btu conversions from mineral fuels]

FUEL	1970	1973	1975	1980	1985	1987	1988	1989	1990	1991	1992	1993	1994
CURRENT DOLLARS													
Composite <sup>1</sup>	31.7	39.8	82.1	204.2	251.2	170.0	153.3	167.1	184.3	167.0	165.8	166.8	152.3
Crude oil	54.8	67.1	132.2	372.2	415.3	265.5	216.9	273.4	345.3	285.2	275.7	245.7	227.4
Natural gas <sup>2</sup>	15.4	20.1	40.2	144.8	225.7	150.2	152.4	154.6	148.0	156.8	183.5	165.5	
Bituminous coal <sup>2</sup>	26.2	36.5	83.9	109.4	114.8	104.9	100.8	100.0	99.5	98.9	96.9	92.6	91.0
Anthracite coal	48.8	61.7	149.5	185.9	204.2	188.9	189.8	183.6	174.5	161.0	151.7	145.7	143.1
CONSTANT (1987) DOLLARS													
Composite <sup>1</sup>	90.1	96.4	166.9	284.8	266.1	170.0	147.5	154.0	162.7	142.0	137.1	135.1	120.8
Crude oil	155.7	162.5	268.7	519.1	439.9	265.5	208.8	252.0	304.8	242.5	228.0	198.9	180.3
Natural gas	43.8	48.7	81.7	202.0	239.1	150.2	146.7	140.7	136.5	125.9	129.7	148.6	131.2
Bituminous coal <sup>2</sup>	74.4	88.4	170.5	152.6	121.6	104.9	97.0	92.2	87.8	84.1	80.1	75.0	72.2
Anthracite coal	138.6	149.4	303.9	259.3	216.3	188.9	182.7	169.2	154.0	136.9	125.5	118.0	113.5
GDP implicit price deflator <sup>3</sup> (1987=100)	35.2	41.3	49.2	71.7	94.4	100.0	103.9	108.5	113.2	117.8	120.9	123.5	126.1

<sup>1</sup> Weighted by relative importance of individual fuels in total fuels production. <sup>2</sup> Includes subbituminous and lignite.

<sup>3</sup> GDP=Gross domestic product; see text, section 15.

Source: U.S. Energy Information Administration, *Annual Energy Review*.

**No. 927. World Primary Energy Production, by Region and Type: 1980 to 1993**

[In quadrillion Btu. Btu=British thermal units. For Btu conversion factors, see source]

REGION AND TYPE	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993
<b>World total</b>	<b>286.38</b>	<b>304.89</b>	<b>315.05</b>	<b>322.94</b>	<b>335.12</b>	<b>341.96</b>	<b>347.74</b>	<b>345.19</b>	<b>343.64</b>	<b>345.76</b>
North America	80.85	84.55	83.31	84.73	86.83	86.85	88.80	89.31	89.12	88.52
United States	64.76	64.87	64.35	64.95	66.11	66.13	67.85	67.48	66.85	65.31
Central and South America	12.11	13.59	14.47	14.44	15.29	15.86	16.81	17.64	17.73	18.32
Western Europe	30.66	37.62	38.49	38.90	39.10	39.02	38.74	39.23	38.91	39.28
Eastern Europe and former USSR	66.72	75.85	78.68	80.80	83.17	81.89	80.36	74.38	69.01	65.32
Middle East	42.17	25.77	30.75	32.21	36.12	39.72	41.03	40.35	43.56	46.34
Africa	18.05	19.29	19.07	19.45	20.54	21.39	22.43	23.43	22.74	22.91
Far East and Oceania	35.82	48.22	50.27	52.41	54.08	57.23	59.57	60.84	62.59	65.07
Crude oil	128.12	115.40	120.24	121.16	125.93	127.98	129.50	128.77	129.12	129.72
Natural gas	52.65	61.38	62.60	65.61	68.78	71.20	72.91	73.99	73.80	75.34
Natural gas liquids	5.10	5.82	6.12	6.32	6.63	6.68	6.85	7.16	7.34	7.63
Coal	74.48	85.77	88.06	90.27	91.92	93.92	94.97	90.43	88.62	86.67
Hydroelectric power	18.05	20.56	20.96	21.03	21.81	21.62	22.46	22.80	22.67	23.51
Nuclear electric power	7.58	15.37	16.34	17.80	19.30	19.82	20.30	21.27	21.30	22.10
Geothermal, solar and wind	0.40	0.60	0.73	0.75	0.75	0.75	0.75	0.77	0.79	0.79

Source: U.S. Energy Information Administration, *International Energy Annual*.

## Energy

**No. 928. Energy Imports and Exports, by Type of Fuel: 1970 to 1994**

[In quadrillion of Btu. For definition of Btu, see text, section 19]

Type of Fuel	1970	1973	1975	1980	1985	1988	1989	1990	1991	1992	1993	1994
Net imports: <sup>1</sup>												
Coal	-1.93	-1.42	-1.74	-2.39	-2.39	-2.45	-2.57	-2.70	-2.77	-2.59	-1.78	-1.69
Natural Gas (dry)	0.77	0.98	0.90	0.96	0.90	1.22	1.28	1.46	1.67	1.94	2.25	2.43
Petroleum	6.92	12.98	12.51	13.50	8.95	14.01	15.33	15.29	14.22	14.96	16.40	17.12
Other <sup>2</sup>	-0.04	0.14	0.08	0.18	0.41	0.37	0.14	0.03	0.24	0.32	0.31	0.46
Imports:												
Coal	(Z)	(Z)	0.02	0.03	0.05	0.05	0.07	0.07	0.08	0.10	0.18	0.19
Natural Gas (dry)	0.85	1.06	0.98	1.01	0.95	1.30	1.39	1.55	1.80	2.16	2.40	2.58
Petroleum	7.47	13.47	12.95	14.66	10.61	15.75	17.16	17.12	16.35	16.97	18.51	19.11
Other <sup>2</sup>	0.07	0.20	0.16	0.28	0.49	0.47	0.33	0.25	0.35	0.43	0.44	0.53
Exports:												
Coal	1.94	1.43	1.76	2.42	2.44	2.50	2.64	2.77	2.85	2.68	1.96	1.88
Natural Gas (dry)	0.07	0.08	0.07	0.05	0.06	0.07	0.11	0.09	0.13	0.22	0.14	0.15
Petroleum	0.55	0.49	0.44	1.16	1.66	1.74	1.84	1.82	2.13	2.01	2.12	1.99
Other <sup>2</sup>	0.11	0.06	0.08	0.09	0.08	0.10	0.18	0.23	0.11	0.11	0.13	0.07

Z Less than .005 quadrillion Btu. <sup>1</sup> Net imports equals imports minus exports. Minus sign (-) denotes an excess of exports over imports. <sup>2</sup> Coal coke and small amounts of electricity transmitted across U.S. borders with Canada and Mexico.

Source: U.S. Energy Information Administration, *Annual Energy Review*.

**No. 929. U.S. Foreign Trade in Selected Mineral Fuels: 1970 to 1995**

[Minus sign (-) indicates an excess of imports over exports. See also *Historical Statistics, Colonial Times to 1970*, series M 100, 101, 127, 128, 140, 141, 178, and 181]

MINERAL FUEL	Unit	1970	1973	1975	1980	1985	1990	1992	1993	1994	1995
NATURAL GAS											
Imports	Bil. cu. ft. . . . .	821	1,033	953	985	950	1,532	2,138	2,350	2,624	2,735
Exports	Bil. cu. ft. . . . .	70	77	73	49	55	86	216	140	162	161
Net trade	Bil. cu. ft. . . . .	-751	-956	-880	-936	-894	-1,446	-1,922	-2,210	-2,462	-2,574
CRUDE OIL											
Imports <sup>1</sup>	Mil. bbl. . . . .	483	1,184	1,498	1,926	1,168	2,151	2,220	2,477	2,578	2,608
Exports	Mil. bbl. . . . .	5	1	2	105	75	40	32	36	36	32
Net trade	Mil. bbl. . . . .	-478	-1,183	-1,496	-1,821	-1,093	-2,112	-2,188	-2,441	-2,542	-2,576
PETROLEUM PRODUCTS											
Imports	Mil. bbl. . . . .	765	1,099	712	603	681	775	659	669	706	581
Exports	Mil. bbl. . . . .	89	84	74	94	211	273	314	330	308	312
Net trade	Mil. bbl. . . . .	-676	-1,015	-638	-509	-470	-502	-345	-339	-398	-269
COAL											
Imports	1,000 sh. tons	36	127	940	1,194	1,952	2,699	3,803	7,309	7,584	7,201
Exports	1,000 sh. tons	71,733	53,587	66,309	91,742	92,680	105,804	102,516	74,519	71,359	88,547
Net trade	1,000 sh. tons	71,697	53,460	65,369	90,548	90,728	103,105	98,713	67,210	63,775	81,346

<sup>1</sup> Beginning 1980, includes strategic petroleum reserve imports.

Source: U.S. Energy Information Administration, *Natural Gas Monthly*, *Petroleum Supply Monthly*, and *Monthly Energy Review*.

**No. 930. Daily International Flow of Crude Oil, by Area: 1991**

[In thousands of barrels per day]

EXPORTING AREA	Total <sup>1</sup>	IMPORTING AREA							
		North America		Central and South America	Western Europe	Eastern Europe	Middle East and Africa	Japan	
		U.S.	Canada						
World total. . . . .	28,406	5,782	551	1,641	10,245	834	1,143	4,180	4,030
United States . . . . .	116	(X)	5	2,111	-	-	-	-	-
North America, except U.S. . . . .	2,121	1,502	15	58	346	-	32	157	11
Central and South America . . . . .	1,842	927	35	615	208	-	9	48	
Western Europe . . . . .	2,939	183	348	11	2,374	-	23	-	-
Eastern Europe and U.S.S.R. . . . .	1,205	1	-	5	637	493	16	2	51
Middle East . . . . .	12,947	1,770	89	682	3,567	246	731	3,034	2,828
Africa . . . . .	4,969	1,160	59	147	3,101	95	323	11	73
Far East and Oceania. . . . .	2,267	239	-	12	12	-	18	967	1,019

- Represents zero. X Not applicable. <sup>1</sup> Includes stocks at sea, exchanges, transshipments, and other statistical discrepancies not shown separately.

Source: U.S. Energy Information Administration, *International Energy Annual*.



**No. 933. Strategic Petroleum Reserve: 1977 to 1994**

[Million barrels, except as noted. The Strategic Petroleum Reserve is a stock of petroleum maintained by the Federal Government for use during periods of major supply interruption]

YEAR	Crude oil imports	Domestic crude oil deliveries	Domestic crude oil sales	STOCKS AT YEAR-END			Days of net petroleum imports <sup>3</sup>
				Quantity <sup>1</sup>	Percent of crude oil stocks <sup>2</sup>	Percent of total petroleum stocks	
1977	7.54	4.037	-	7.46	2.1	0.6	1
1980	16.07	1.30	-	107.80	23.1	7.7	17
1985	43.12	0.17	-	493.32	60.6	32.5	115
1987	26.52	2.69	-	540.65	60.8	33.6	91
1988	18.76	0.01	-	559.52	62.9	35.0	85
1989	20.35	-	-	579.86	62.9	36.7	81
1990	9.77	-	3.91	585.69	64.5	36.1	82
1991	-	-	17.22	568.51	63.7	35.2	86
1992	3.59	2.60	-	574.72	64.4	36.1	83
1993	5.37	6.96	-	587.08	63.6	35.6	78
1994	4.49	0.11	-	591.67	63.7	35.8	74

- Represents zero. <sup>1</sup> Stocks do not include imported quantities in transit to Strategic Petroleum Reserve terminals, pipeline fill, and above ground storage. <sup>2</sup> Including lease condensate stocks. <sup>3</sup> Derived by dividing end-of-year strategic petroleum reserve stocks by annual average daily net imports of all petroleum. Calculated prior to rounding. <sup>4</sup> The quantity of domestic fuel oil which was in storage prior to injection of foreign crude oil.

Source: U.S. Energy Information Administration, *Annual Energy Review*.

**No. 934. World Petroleum Consumption, by Major Consuming Country: 1983 to 1993**  
[Million barrels per day]

REGION AND COUNTRY	1983	1985	1986	1987	1988	1989	1990	1991	1992	1993
<b>World, total . . . . .</b>	<b>58.74</b>	<b>60.10</b>	<b>61.76</b>	<b>63.01</b>	<b>64.83</b>	<b>66.03</b>	<b>66.16</b>	<b>66.71</b>	<b>66.57</b>	<b>66.72</b>
North America, total . . . . .	18.03	18.70	19.28	19.74	20.53	20.73	20.41	20.14	20.51	20.75
Canada . . . . .	1.45	1.50	1.51	1.55	1.69	1.73	1.69	1.62	1.64	1.66
Mexico . . . . .	1.35	1.47	1.49	1.52	1.55	1.66	1.73	1.80	1.83	1.84
United States . . . . .	15.23	15.73	16.28	16.67	17.28	17.33	16.99	16.71	17.03	17.24
Central & South America, total . . . . .	3.19	3.19	3.41	3.52	3.57	3.58	3.60	3.65	3.74	3.89
Brazil . . . . .	0.98	1.08	1.24	1.26	1.30	1.32	1.34	1.35	1.37	1.41
Western Europe, total . . . . .	12.38	12.39	12.79	12.93	13.08	13.16	13.25	13.66	13.81	13.80
France . . . . .	1.84	1.78	1.77	1.79	1.80	1.86	1.82	1.94	1.93	1.91
Germany . . . . .	2.66	2.70	2.86	2.77	2.74	2.58	2.66	2.83	2.84	2.90
Italy . . . . .	1.75	1.72	1.74	1.86	1.84	1.93	1.87	1.86	1.94	1.88
United Kingdom . . . . .	1.53	1.63	1.65	1.60	1.70	1.74	1.75	1.80	1.80	1.80
Eastern Europe and former U.S.S.R. . . . .	10.47	10.46	10.46	10.51	10.38	10.19	9.73	9.43	7.85	6.81
Middle East, total . . . . .	2.61	2.85	2.98	3.06	3.15	3.36	3.47	3.40	3.40	3.49
Africa, total . . . . .	1.70	1.83	1.83	1.84	1.91	1.99	2.10	2.15	2.18	2.17
Far East & Oceania, total . . . . .	10.36	10.69	11.03	11.42	12.21	13.03	13.61	14.28	15.09	15.82
China . . . . .	1.73	1.89	2.00	2.12	2.28	2.38	2.30	2.50	2.66	3.11
India . . . . .	0.77	0.90	0.95	0.99	1.08	1.15	1.17	1.19	1.28	1.29
Japan . . . . .	4.40	4.38	4.44	4.48	4.75	4.98	5.14	5.28	5.45	5.38

Source: U.S. Energy Information Administration, *Annual Energy Review* and *Monthly Energy Review*, monthly

**No. 935. Energy Producing Companies—Selected Financial and Investment Indicators: 1985 to 1994**

[Based on data from major publicly-owned domestic crude oil producing companies which either had at least 1 percent of domestic production or reserves of oil, natural gas, coal, or uranium, or at least 1 percent of refining capacity or petroleum product sales. There were 25 companies in 1993 and 1994; 22 during 1985 through 1987; and 23 in 1988 to 1992.]

ITEM	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<b>INCOME STATEMENT (bil. dol.)</b>										
Operating revenues . . . . .	492.5	378.5	417.4	419.8	433.6	510.4	469.3	472.8	448.1	446.6
Operating expenses . . . . .	444.2	354.4	383.7	381.6	397.7	470.1	443.3	449.5	423.0	416.5
Operating income . . . . .	48.3	24.0	33.7	38.2	35.9	40.2	26.0	23.3	25.1	30.1
Pretax income . . . . .	43.6	20.6	25.0	34.3	32.3	37.5	25.1	22.5	24.8	29.6
Net income . . . . .	17.4	9.2	11.3	22.3	19.8	21.6	14.7	1.8	15.5	16.5
Funds from operations <sup>1</sup> . . . . .	63.5	53.1	51.6	57.8	48.3	54.9	47.8	44.8	50.2	48.3
<b>BALANCE SHEET (bil. dol.)</b>										
Net property, plant, and equipment . . . . .	297.7	291.1	297.6	293.6	293.2	302.5	305.5	309.7	307.9	308.7
Net investment in place <sup>2</sup> . . . . .	315.4	310.0	316.4	309.6	309.9	319.7	325.6	331.6	331.5	334.6
Total assets . . . . .	438.4	427.0	443.6	437.8	434.5	457.2	447.1	453.6	451.3	457.4
<b>RATIOS (percent)</b>										
Net income to operating revenues . . . . .	3.5	2.4	2.7	5.3	4.6	4.2	3.1	3.0	3.5	3.7
Net income to total assets . . . . .	4.0	2.2	2.5	5.1	4.6	4.7	3.3	0.4	3.4	3.6
Net income to stockholders' equity <sup>3</sup> . . . . .	10.5	5.6	6.8	13.5	12.3	12.9	8.8	1.1	9.6	10.0
Long-term debt to stockholders' equity <sup>4</sup> . . . . .	54.3	56.0	57.6	56.6	55.0	54.3	59.4	55.3	53.1	53.1
Long-term debt to total assets <sup>4</sup> . . . . .	20.5	21.6	21.5	21.3	20.9	19.4	20.3	20.6	19.8	19.3

<sup>1</sup> The sum of net income, depreciation, depletion and amortization, deferred taxes, dry hole expenses, etc. <sup>2</sup> Composed of net property, plant and equipment plus investment, and advances to unconsolidated subsidiaries. <sup>3</sup> The implementation of the new "Financial Accounting Standard No. 106" greatly reduced the reported profitability of large publicly traded corporations. Net income without these accounting changes would have been \$12.5 billion. <sup>4</sup> Long-term debt includes amounts applicable to capitalized leases.

Source: U.S. Energy Information Administration, *Performance Profiles of Major Energy Producers*, annual.



**No. 939. Electric Utility Industry—Net Generation, Net Summer Capability, Generating Units, and Consumption of Fuels: 1980 to 1995**

[Net Generation for calendar years; other data as of December 31. See also *Historical Statistics, Colonial Times to 1970*, series S 32-52, S 78-82, and S 86-107.]

ITEM	Unit	1980	1985	1988	1989	1990	1991	1992	1993	1994	1995, prel.
<b>RETAIL SALES</b>											
Retail sales, total . . . . .	Bil. kWh . . .	2,094	2,324	2,578	2,647	2,713	2,762	2,763	2,861	2,935	3,005
Net generation by electric utilities . . . . .	Bil. kWh . . .	2,286	2,470	2,704	2,784	2,808	2,825	2,797	2,883	2,911	2,995
Purchases by utilities from nonutility purchasers . . . . .	Bil. kWh . . .	1	26	68	90	116	139	166	189	209	(NA)
Imports . . . . .	Bil. kWh . . .	25	46	39	26	23	31	37	39	52	45
Exports . . . . .	Bil. kWh . . .	4	5	7	15	21	9	9	11	8	8
Losses and unaccounted for . . . . .	Bil. kWh . . .	214	212	226	238	214	225	229	238	230	(NA)
<b>NET GENERATION</b>											
Total . . . . .	Bil. kWh . . .	2,286	2,470	2,704	2,784	2,808	2,825	2,797	2,883	2,911	2,995
Average annual change <sup>1</sup> . . . . .	Percent . . . . .	3.5	1.5	3.0	2.9	0.9	0.6	-1.0	3.0	1.0	2.8
Net generation, kWh per kW of net summer capability <sup>2</sup> . . . . .	Rate . . . . .	3,951	3,770	3,990	4,064	4,067	4,076	4,024	4,119	4,146	4,246
Source of energy:											
Coal <sup>3</sup> . . . . .	Percent . . . . .	50.8	56.8	57.4	56.2	55.6	54.9	56.3	56.9	56.2	55.2
Nuclear . . . . .	Percent . . . . .	11.0	15.5	19.5	19.0	20.5	21.7	22.1	21.2	22.0	22.5
Oil . . . . .	Percent . . . . .	10.8	4.0	5.5	5.7	4.2	3.9	3.2	3.5	3.1	2.0
Gas . . . . .	Percent . . . . .	15.1	11.8	9.3	9.6	9.4	9.3	9.4	9.0	10.0	10.3
Hydro . . . . .	Percent . . . . .	12.1	11.4	8.2	9.5	10.1	9.9	8.7	9.3	8.5	9.9
Type of prime mover:											
Hydro . . . . .	Bil. kWh . . .	276	281	223	265	280	276	240	265	244	294
Steam conventional <sup>5</sup> . . . . .	Bil. kWh . . .	1,726	1,778	1,921	1,950	1,919	1,905	1,908	1,964	1,982	1,977
Gas turbine and internal combustion . . . . .	Bil. kWh . . .	28	16	22	29	14	22	21	25	36	44
Steam nuclear . . . . .	Bil. kWh . . .	251	384	527	529	577	613	619	610	640	673
Other . . . . .	Bil. kWh . . .	6	11	12	11	11	10	10	10	9	6
<b>NET SUMMER CAPABILITY</b>											
Total <sup>6</sup> . . . . .	Mil. kW . . .	579	655	678	685	691	693	695	700	702	705
Average annual change <sup>1</sup> . . . . .	Percent . . . . .	3.3	2.5	1.1	1.1	0.8	0.4	0.3	0.7	0.3	0.4
Hydro . . . . .	Mil. kW . . .	82	89	90	91	91	92	93	96	96	97
Steam conventional <sup>7</sup> . . . . .	Mil. kW . . .	397	437	442	444	448	447	447	447	446	446
Gas turbine . . . . .	Mil. kW . . .	43	44	44	45	46	48	50	52	55	57
Steam nuclear . . . . .	Mil. kW . . .	52	79	95	98	100	100	99	99	99	99
Internal combustion . . . . .	Mil. kW . . .	5	5	5	5	5	5	5	5	5	5
Geothermal and other . . . . .	Mil. kW . . .	1	2	2	2	2	2	2	2	2	2
<b>NUMBER OF GENERATING UNITS</b>											
Total <sup>8</sup> . . . . .	Number . . .	11,084	(NA)	10,305	10,325	10,296	10,260	10,221	10,471	10,427	(NA)
Hydro . . . . .	Number . . .	3,275	(NA)	3,496	3,479	3,479	3,476	3,497	3,388	3,362	(NA)
Steam conventional . . . . .	Number . . .	2,862	(NA)	2,383	2,363	2,354	2,284	2,307	2,221	2,170	(NA)
Gas turbine . . . . .	Number . . .	1,447	(NA)	1,397	1,438	1,460	1,485	1,501	1,411	1,446	(NA)
Steam nuclear . . . . .	Number . . .	74	(NA)	108	110	111	111	109	109	109	(NA)
Internal combustion . . . . .	Number . . .	3,410	(NA)	2,872	2,889	2,847	2,803	2,807	2,976	2,953	(NA)
<b>CONSUMPTION OF FOSSIL FUELS</b>											
Net generation by fuel <sup>9</sup> . . . . .	Quad. Btu . . .	18.56	18.79	20.12	20.54	20.32	20.07	19.99	20.58	20.92	20.92
Coal . . . . .	Quad. Btu . . .	12.12	14.54	15.85	15.99	16.19	16.03	16.21	16.79	16.90	17.00
Percent of total . . . . .	Percent . . . . .	65.30	77.38	78.78	77.85	79.68	79.87	81.09	81.58	80.78	81.26
Petroleum . . . . .	Quad. Btu . . .	2.63	1.09	1.56	1.69	1.25	1.18	0.95	1.05	0.97	0.66
Gas . . . . .	Quad. Btu . . .	3.81	3.16	2.71	2.87	2.88	2.86	2.83	2.74	3.05	3.26
Fuel consumed:											
Coal . . . . .	Mil. sh. tons . . .	569	694	758	767	774	772	780	814	817	829
Petroleum . . . . .	Mil. bbl. . .	421	175	250	270	200	189	152	169	155	106
Gas . . . . .	Bil. cu. ft. . .	3,682	3,044	2,636	2,787	2,787	2,789	2,766	2,682	2,987	3,195

NA Not available. <sup>1</sup> Change from immediate prior year except for 1980, change from 1975. For explanation of average annual percent change, see Guide to Tabular Presentation. <sup>2</sup> Net summer capability is the steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary power as demonstrated by test at the time of summer peak demand. <sup>3</sup> Includes small percentage (.5 percent) from wood and waste, geothermal, and petroleum coke. <sup>4</sup> A prime mover is the engine, turbine, water wheel, or similar machine which drives an electric generator. <sup>5</sup> Fossil fuels only. <sup>6</sup> Includes wind, solar thermal, and photovoltaic, not shown separately. <sup>7</sup> Includes fossil steam, wood, and waste. <sup>8</sup> Each prime mover type in combination plants counted separately. Includes geothermal, wind, and solar, not shown separately. <sup>9</sup> Includes small amounts of wood, waste, wind, geothermal, solar thermal, and photovoltaic.

Source: U.S. Energy Information Administration, 1980, *Power Production, Fuel Consumption, and Installed Capacity Data-Annual*, and unpublished data; thereafter, *Electric Power Annual, Annual Energy Review*, and unpublished data.











## Energy

**No. 952. Renewable Energy Consumption Estimates, by Type: 1990 to 1994**

[In quadrillion Btu. Renewable energy is obtained from sources that are essentially inexhaustible unlike fossil fuels of which there is a finite supply]

SOURCE AND SECTOR	1990	1991	1992	1993	1994
SOURCES					
<b>Total</b>	<b>6.16</b>	<b>6.27</b>	<b>6.11</b>	<b>6.40</b>	<b>6.35</b>
Consumption for electricity . . . . .	3.94	4.10	3.83	4.15	4.05
Electric utilities . . . . .	3.23	3.30	2.97	3.22	3.07
Hydroelectric power . . . . .	2.93	2.90	2.51	2.77	2.54
Geothermal energy . . . . .	0.18	0.17	0.17	0.16	0.15
Biofuels <sup>1</sup> . . . . .	0.02	0.02	0.02	0.02	0.02
Wind energy <sup>2</sup> . . . . .	(Z)	(Z)	(Z)	(Z)	(Z)
Nonutility power generators . . . . .	0.70	0.79	0.87	0.93	0.99
Hydroelectric power . . . . .	0.08	0.08	0.10	0.12	0.14
Geothermal, solar, and wind energy . . . . .	0.18	0.20	0.22	0.24	0.26
Biofuels <sup>1</sup> . . . . .	0.44	0.51	0.55	0.57	0.59
Net imported electricity . . . . .	0.10	0.21	0.26	0.27	0.36
Consumption for other uses <sup>3</sup> . . . . .	2.22	2.17	2.28	2.25	2.30
Biofuels <sup>1</sup> . . . . .	2.63	2.64	2.79	2.78	2.85
Solar and photovoltaic energy . . . . .	0.07	0.07	0.07	0.07	0.07
SECTORS					
<b>Total</b>	<b>6.16</b>	<b>6.27</b>	<b>6.11</b>	<b>6.40</b>	<b>6.35</b>
Residential and commercial . . . . .	0.64	0.67	0.71	0.65	0.64
Industrial . . . . .	2.21	2.22	2.36	2.45	2.54
Transportation . . . . .	0.08	0.07	0.08	0.09	0.10
Electric utilities . . . . .	3.23	3.30	2.97	3.22	3.07

Z Less than 0.005 quadrillion Btu. <sup>1</sup> Biofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels. <sup>2</sup> Also includes photovoltaic and solar thermal energy. <sup>3</sup> Included are nonutility thermal energy uses, such as space heating and industrial process heat production. Excluded are estimates for mechanical energy, such as shaft power from dams, wind machines, and solar-powered motors and activators.

Source: U.S. Energy Information Administration, *Annual Energy Review*.

**No. 953. Privately Owned Gas Utility Industry—Balance Sheet and Income Account: 1980 to 1994**

[In millions of dollars. The gas utility industry consists of pipeline and distribution companies. Excludes operations of companies distributing gas in bottles or tanks. See also *Historical Statistics, Colonial Times to 1970*, series S 205-218]

ITEM	1980	1985	1988	1989	1990	1991	1992	1993	1994
COMPOSITE BALANCE SHEET									
<b>Assets, total<sup>1</sup></b>	<b>75,851</b>	<b>104,478</b>	<b>121,667</b>	<b>123,820</b>	<b>121,686</b>	<b>124,120</b>	<b>129,400</b>	<b>135,813</b>	<b>138,086</b>
Total utility plant . . . . .	67,071	88,121	99,933	106,017	112,863	119,772	129,272	135,859	139,187
Depreciation and amortization . . . . .	26,162	36,377	44,423	47,054	49,483	52,400	53,005	60,152	61,355
Utility plant (net) . . . . .	40,909	51,744	55,510	58,963	63,380	67,372	76,267	75,707	77,832
Investment and fund accounts <sup>1</sup> . . . . .	15,530	23,871	31,552	28,111	23,872	22,883	21,883	23,342	23,108
Current and accrued assets . . . . .	17,243	24,771	23,402	24,836	23,268	23,023	23,783	21,451	20,799
Deferred debits <sup>2</sup> . . . . .	2,169	4,092	9,658	10,364	9,576	9,277	9,776	13,369	14,257
<b>Liabilities, total<sup>1</sup></b>	<b>75,851</b>	<b>104,478</b>	<b>121,667</b>	<b>123,820</b>	<b>121,686</b>	<b>124,120</b>	<b>129,400</b>	<b>135,813</b>	<b>138,086</b>
Capitalization, total <sup>1</sup> . . . . .	51,382	65,799	69,875	74,753	74,958	75,463	81,183	82,755	85,823
Capital stock <sup>1</sup> . . . . .	29,315	39,517	39,898	43,889	43,810	43,435	46,318	49,051	50,570
Long-term debts . . . . .	22,067	26,282	29,977	30,864	31,148	32,028	34,865	33,693	35,215
Current and accrued liabilities . . . . .	18,119	26,125	33,735	31,005	29,550	28,128	26,438	27,321	25,536
Deferred income taxes <sup>3</sup> . . . . .	4,149	7,769	10,685	11,292	11,360	10,527	10,952	13,070	13,760
Other liabilities and credits . . . . .	2,201	4,785	7,372	6,770	5,818	10,002	10,827	12,667	12,967
COMPOSITE INCOME ACCOUNT									
<b>Operating revenues, total</b>	<b>85,918</b>	<b>103,945</b>	<b>69,754</b>	<b>70,363</b>	<b>66,027</b>	<b>63,922</b>	<b>66,405</b>	<b>69,966</b>	<b>63,831</b>
Operating expenses <sup>4</sup> . . . . .	81,789	98,320	64,696	64,262	60,137	59,165	60,042	62,977	56,896
Operation and maintenance . . . . .	74,508	88,572	57,032	55,990	51,627	50,867	48,054	50,468	44,014
Federal, State, and local taxes . . . . .	4,847	6,590	4,241	4,843	4,957	4,446	6,031	6,185	6,515
Operating income . . . . .	4,129	5,625	5,058	6,101	5,890	4,756	6,363	6,988	6,934
Utility operating income . . . . .	4,471	6,030	5,202	6,274	6,077	4,962	6,572	7,177	7,126
Income before interest charges <sup>1</sup> . . . . .	6,929	7,636	7,472	8,764	8,081	5,530	7,223	8,754	8,500
Net income <sup>1</sup> . . . . .	4,194	3,785	3,352	4,641	4,410	1,894	3,750	5,589	5,325
Dividends . . . . .	2,564	4,060	3,151	3,113	3,191	4,341	3,889	3,149	3,930

<sup>1</sup> Beginning 1980, not comparable with earlier years due to Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries. <sup>2</sup> Includes capital stock discount and expense and reacquired securities.

<sup>3</sup> Includes reserves for deferred income taxes. <sup>4</sup> Includes expenses not shown separately.

Source: American Gas Association, Arlington, VA, *Gas Facts*, annual, (copyright).

