Cover Sheet

2006 Manufacturing Energy Consumption Survey

Sponsored by the Energy Information Administration
U.S. Department of Energy

Administered and Compiled by the Bureau of the Census
U.S. Department of Commerce

Form EIA-846B

OMB Approval No. 1905-0169

Expires: 10/31/2009

Affix label from mail package above. If you don't have a label please provide username from letter, company name, and mailing address. Please provide the 22-digit number on the top left hand side of your letter found between the words ID and MECS.

If you need additional time or have questions about what to report on this questionnaire, please call our processing office at 1-800-528-3049. Return the completed questionnaire in the enclosed envelope. **Please staple all sections and pages of your establishment's questionnaire to this cover sheet. Please include one cover sheet for each establishment that has a label.** If the envelope has been misplaced, please mail to:

Bureau Of The Census
1201 East 10th Street
Jeffersonville, IN 47132-0001

Reporting Requirement: This survey is **mandatory** under the Federal Energy Administrative Act of 1974, Pub. Law No. 93-275, and under Title 3, Subtitle B, of the Omnibus Budget Reconciliation Act of 1986, Pub. Law No. 99-509, as amended by Title 1, Subtitle G, of the Energy Policy Act of 1992, Pub. Law No. 102-486.

Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

Per the Paperwork Reduction Act of 1995, you are not required to respond to any Federally-sponsored collection of information unless it displays a valid OMB Approval Number. The valid OMB Approval Number for this information collection (1905-0169) is displayed at the top left of this page.

Instructions and Frequently Asked Questions can be found at www.census.gov/econhelp/mecs.

Contact & Refinery Information

Contact Information

Date	Telephone
	Area Code Number Ext. -

Name of person to contact regarding this questionnaire

Title of contact person (above)

Address (number and street)

City	State	Zip Code + 4

E-mail address

Refinery Information

Indicate the correct description of this establishment.

Definition of Refinery:

• For the purpose of this survey, a refinery is an installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons and alcohol. Processes used by a refinery include fractional distillation, cracking (both catalytic and hydro cracking), coking, reforming, alkylation, isomerization, polymerization, hydro treating, and sweetening. Products include, but are not limited to, unfinished oils, motor gasoline, aviation gasoline, special naphthas, kerosene, distillate fuel oil, residual fuel oil, lubricating oils, asphalt and road oil, waxes, petroleum coke, still gas, and petrochemical feedstocks.

Definition of Nonrefinery (Petrochemical):

• A nonrefinery is an installation that produces substances by the chemical treatment of raw materials derived from petroleum or natural gas. Among the final products are plastics (including synthetic rubbers), synthetic fibers, chemicals, drugs, and detergents. A nonrefinery is also called a petrochemical operation.

• Please check the reporting boundaries of the Census of Manufacturers (CM) to determine if your establishment is considered to include an adjacent nonrefinery (petrochemical operation).

18010	Check one box only
❑ 1	**Establishment consists of REFINERY operations ONLY.** • (There may be nonrefinery (petrochemical) operations co-located, but those operations are identified as a separate establishment for purposes of the Census of Manufacturers)
❑ 2	**Establishment consists of both REFINERY and NONREFINERY operations.** • For this survey questionnaire, report for the entire establishment, including both refinery and nonrefinery operations, unless those are identified as a separate establishment for purpose of the Census of Manufacturers. If nonrefinery identified as a separate establishment, then the REFINDERY operations ONLY button above should be checked
❑ 3	**Neither of the above** • Call the MECS specialist at 1-800-528-3049 if this establishment is NOT A REFINERY. Please call before continuing the questionnaire.

Establishment Information

Establishment Information			
1.	**Did ownership of this establishment change during 2006?**	"Census Use Only" 00011	❑ **1. No** ❑ **2. Yes: Establishment was sold during the year.** *Complete all sections of this questionnaire for activities that occurred in 2006 prior to the sale.* ❑ **3. Yes: Establishment was bought during the year.** *Complete all sections of this questionnaire for activities that occurred in 2006 after the sale.*
2.	**What best describes this establishment at the end of 2006?**	00010	❑ **1. In operation: Skip to question 6** ❑ **2. Ceased operation: Answer question 3 then skip to question 6.** ❑ **3. Sold or leased to another operator: Skip to question 4.**
3.	**Enter the date in which your establishment ceased operation.**	00013	Enter Date (mm-dd-yyyy)
4.	**Enter the date in which your establishment was either sold or leased to another operator.**	00014	Enter Date (mm-dd-yyyy)

Establishment Information

Establishment Information

5. **Enter the following information only if this establishment was sold or leased to another operator during 2006.**

Name of new owner or operator

00015

Address

00017

City

00018

State

00019

Zip (Zip +4)

00020 00021

Employer Identification Number
(9 Digit EIN)

00016

6. **Enter the reporting period for the information reported on this questionnaire. Unless there are special circumstances like those reported above, this reporting period should be from January 1, 2006 to December 31, 2006.**

00022 **From:** (mm-dd-yyyy)

00023 **To:** (mm-dd-yyyy)

Electricity

Electricity: Total Purchased

1.	**Enter the total quantity of electricity purchased by and delivered to this establishment during 2006, regardless of when payment was made.**	"Census Use Only" 10061	Kilowatthours
2.	**Enter total expenditures; including all applicable taxes and any delivery, management, transportation, and demand charges, for the purchased electricity reported in question 1.**	10062	$ U.S. Dollars

Electricity: Source of Purchase

3.	**During 2006, where did this establishment's purchased electricity come from?** **Local utility:** the company in your local area that produces and/or delivers electricity and is legally obligated to provide service to the general public within its franchise area. **Non-utility:** includes generators of electricity such as independent power producers, small power producers. It also includes brokers, marketers, marketing subsidiaries of utilities, or co-generators not owned by your company.	10015	❑ **1. All local utility: Answer question 4 then skip to question 7** ❑ **2. All non-utility: Answer question 4 then skip to question 7** ❑ **3. Both**
4.	**Please specify the utility/non-utility provider from whom you purchased your electricity:** If this establishment purchases from more than one provider, please provide the largest provider.	10016	
5.	**Enter the quantity of your total purchased electricity that was purchased from a local utility during 2006.**	10010	Kilowatthours
6.	**Enter the total expenditures of your purchased electricity that was paid to a local utility.**	10020	$ U.S. Dollars

Electricity: Transfers In

7.	**Enter the total quantity of electricity transferred in or otherwise received on-site without a direct open market purchase.** Include quantities: • For which payment, if any, does not represent an open-market transaction; • For which payment was made in-kind (i.e., barter); • Received from an entity in which your establishment or company has a share of ownership or special sharing of revenue (e.g., in a performance service contract).	10050	Kilowatthours

Electricity

Electricity: Generated On-site

8. **Enter the quantity of electricity generated on-site from each of the following:**

	"Census Use Only"	Kilowatthours
• **Combined Heat and Power (CHP)/Cogeneration** *Cogeneration is the production of electric energy and another form of useful energy (such as heat or steam) through the sequential use of energy.*	10070	
• **Solar Power**	10081	
• **Wind Power**	10082	
• **Hydropower**	10083	
• **Geothermal Power**	10084	
• **Other (for example, electricity generated by diesel generators)**	10090	

Electricity: Sales and Transfers Offsite

9. **Enter the quantity of electricity sold or transferred out of this establishment to utilities during 2006.**

Include quantities exchanged for the same or any other energy source.

Exclude sales to independent power producers, small power producers, or co-generators not located at this establishment.

10110 ____ Kilowatthours

10. **Enter the quantity of electricity sold or transferred out of this establishment to any non-utilities during 2006.**

Include:

- Sales to independent power producers, small power producers, brokers, marketers, marketing subsidiaries of utilities, or co-generators not located at this establishment.
- Quantities exchanged for the same or any other energy source.

10120 ____ Kilowatthours

Electricity

Electricity: Estimated End-Use Percent Consumption

The following questions refer to how this establishment consumed the electricity that was previously reported *(please enter as a percentage of total consumption for each end use performed).* A plant engineer or someone who is familiar with energy flows at this establishment should report this data.

Total Consumption = Question 1 [Purchases] + Question 7 [Transfers] + Question 8 [Generated] – (Question 9 + 10)[Sales and Transfers Offsite]

11. **Enter the percentage of total electricity that this establishment consumed for the following:**

Indirect Uses – Boilers: indirect use is the transformation of energy to another usable energy source, as in a boiler, gas turbine, or combustion turbine.	"Census Use Only"	**Electricity**
• **Boiler fuel** (includes fuels used for thermal outputs)	10710	%
Direct Uses – Process: direct process use includes usage in motors, ovens, kilns, and strip heaters.		
• **Process heating** (e.g., kilns, furnaces, ovens, strip heaters)	10720	%
• **Process cooling and refrigeration**	10730	%
• **Machine drive** (e.g., motors, pumps, etc. associated with manufacturing process equipment)	10740	%
• **Electro-chemical processes** (e.g., reduction process)	10750	%
• **Other direct process use:** 10761 **Please specify:**	10760	%
Direct Uses – Non-process: direct non-process use includes usage for facility lighting and space-conditioning equipment (HVAC).		
• **Facility heating, ventilation, and air conditioning**	10770	%
• **Facility lighting**	10780	%
• **Facility support other than that reported above** (e.g.: cooking, water heating, office equipment)	10790	%
• **On-site transportation, excluding highway usage**	10800	%
• **Other direct non-process use:** 10821 **Please specify:**	10820	%
		TOTAL 100%

Petroleum-based Energy Sources

Petroleum-based Energy Sources			
Energy Source ↓		"Census Use Only"	**Quantity Consumed as a Fuel** ↓
For questions 1 through 21, enter the quantity consumed on-site during 2006 as a fuel for the production of heat, steam, power, or the generation of electricity for all petroleum-based energy sources (fuel) listed below. Exclude quantities of energy sources that were used as material inputs to your refining process or otherwise used as a non-fuel. Include all process uses such as process heating, process cooling, and machine drive and all nonprocess uses such as facility heating, ventilation, and air conditioning. Include fuel consumed by vehicles intended primarily for use on-site, e.g., forklifts, intra-plant shuttles, loaders and other materials-handling equipment operated solely within boundaries of the establishment size.			
1.	**Butane as Liquefied Petroleum Gas (LPG) or Natural Gas Liquids (NGL).**	36060	Gallons
2.	**Ethane as Liquefied Petroleum Gas (LPG) or Natural Gas Liquids (NGL).**	37060	Gallons
3.	**Propane as Liquefied Petroleum Gas (LPG) or Natural Gas Liquids (NGL).**	38060	Gallons
4.	**Mixtures of ethane, butane, and propane.**	34060	Gallons
5.	**Other liquefied petroleum gases (LPG) and natural gas liquids (NGL) (e.g., butylenes, ethylene, propylene)**	35060	Gallons
6.	**Total liquefied petroleum gases (LPG) and natural gas liquids (NGL).** Sum the quantities reported for questions 1 through 5.	24060	Gallons

Total LPG and NGL: Estimated End-Use Percent Consumption

The following questions refer to how this establishment consumed the energy source that was previously reported in question 6 (*please enter as a percentage of total consumption for each end use performed*). A plant engineer or someone who is familiar with energy flows at this establishment should report this data.

7. **Enter the percentage of total Liquefied Petroleum Gas (LPG) and Natural Gas Liquids (NGL) (from question 6) that this establishment consumed as the following:**

Indirect Uses- Boilers: indirect use is the transformation of energy to another usable energy source, as in a boiler, gas turbine, or combustion turbine.	"Census Use Only"	**Total LPG and NGL**
•**Boiler fuel in a Combined Heat and Power (CHP) and/or cogeneration process**	24705	**%**
•**Other boiler fuel (not included above)** *(includes fuels used for thermal outputs only)*	24710	**%**
Direct Uses- Process: direct process use includes usage in motors, ovens, kilns, and strip heaters.		
•**Process heating** (e.g., kilns, furnaces, ovens, strip heaters)	24720	**%**
•**Process cooling and refrigeration**	24730	**%**
•**Machine drive** (e.g., motors, pumps, etc. associated with manufacturing process equipment)	24740	**%**
• **Other direct process use:** 24762 **Please specify:**	24760	**%**
Direct Uses- Non-process: direct non-process use includes usage for facility lighting and space-conditioning equipment (HVAC).		
•**Facility heating, ventilation, and air conditioning**	24770	**%**
•**Facility support other than that reported above** (e.g.: cooking, water heating, office equipment)	24790	**%**
•**On-site transportation, excluding highway usage**	24800	**%**
•**Conventional electricity generation**	24810	**%**
• **Other direct non-process use:** 24822 **Please specify:**	24820	**%**
		TOTAL 100%

Petroleum-based Energy Sources Cont.			
8.	**Diesel fuel, excluding offsite highway usage.**	28060	Barrels
9.	**Distillate fuel oil (numbers 1, 2 and 4 fuel oil).**	29060	Barrels
10.	**Total diesel fuel and distillate fuel oil.** Sum the quantities in questions 8 and 9.	22060	Barrels

Diesel or Distillate Fuel Oil: Estimated End-Use Percent Consumption

The following questions refer to how this establishment consumed the energy source that was previously reported in question 10 *(please enter as a percentage of total consumption for each end use performed)*. A plant engineer or someone who is familiar with energy flows at this establishment should report this data.

11. **Enter the percentage of the total Diesel and Distillate Fuel Oil (from question 10) that this establishment consumed as the following:**

Indirect Uses – Boilers: indirect use is the transformation of energy to another usable energy source, as in a boiler, gas turbine, or combustion turbine.	"Census Use Only"	**Diesel and Distillate**
•**Boiler fuel in a Combined Heat and Power (CHP) and/or cogeneration process**	22705	**%**
•**Other boiler fuel (not included above)** (includes fuels used for thermal outputs only)	22710	**%**
Direct Uses –Process: direct process use includes usage in motors, ovens, kilns, and strip heaters.		
•**Process heating** (e.g., kilns, furnaces, ovens, strip heaters)	22720	**%**
•**Process cooling and refrigeration**	22730	**%**
•**Machine drive** (e.g., motors, pumps, etc. associated with manufacturing process equipment)	22740	**%**
•**Other direct process use:** 22762 **Please specify:**	22760	**%**
Direct Uses – Non-process: direct non-process use includes usage for facility lighting and space-conditioning equipment (HVAC).		
•**Facility heating, ventilation, and air conditioning**	22770	**%**
•**Facility support other than that reported above** *(e.g.: cooking, water heating, office equipment)*	22790	**%**

Petroleum-based Energy Sources

	•**On-site transportation, excluding highway usage**	22800	**%**
	•**Conventional electricity generation**	22810	**%**
	•**Other direct non-process use:** 22822 **Please specify:**	22820	**%**
			TOTAL 100%

Petroleum-based Energy Sources Cont.

12.	**Motor gasoline, excluding offsite highway usage.**	23060	Gallons
13.	**Residual fuel oil (numbers 5, 6, Navy Special, and Bunker C).**	21060	Barrels

Residual Fuel Oil: Estimated End-Use Percent Consumption

The following questions refer to how this establishment consumed the residual fuel that was previously reported in question 13 (*please enter as a percentage of total consumption for each end use performed).* A plant engineer or someone who is familiar with energy flows at this establishment should report this data.

14. **Enter the percentage of total Residual Fuel (from question 13) that this establishment consumed as the following:**

	"Census use Only"	**Residual Fuel**
Indirect Uses – Boilers: indirect use is the transformation of energy to another usable energy source, as in a boiler, gas turbine, or combustion turbine.		
•**Boiler fuel in a Combined Heat and Power (CHP) and/or cogeneration process**	21705	**%**
•**Other boiler fuel (not included above)** (includes fuels used for thermal outputs)	21710	**%**
Direct Uses – Process: direct process use includes usage in motors, ovens, kilns, and strip heaters.		
•**Process heating** (e.g., kilns, furnaces, ovens, strip heaters)	21720	**%**
•**Process cooling and refrigeration**	21730	**%**
•**Machine drive** (e.g., motors, pumps, etc. associated with manufacturing process equipment)	21740	**%**
•**Other direct process use:** 21762 **Please specify:**	21760	**%**

Petroleum-based Energy Sources

	Direct Uses – Non-process: direct non-process use includes usage for facility lighting and space-conditioning equipment (HVAC).	"Census use Only"	**Residual Fuel**
	•Facility heating, ventilation, and air conditioning	21770	**%**
	•Facility support other than that reported above (e.g.: cooking, water heating, office equipment)	21790	**%**
	•Conventional electricity generation	21810	**%**
	•Other direct non-process use: 21822 **Please specify:**	21820	**%**
			TOTAL 100%

Petroleum-based Energy Sources Cont.

15.	**Waste and byproduct gases (e.g., refinery gas, off gas, vent gas, plant gas, still gas).**	62060	Million BTU
16.	**Fluid catalytic cracking unit coke.**	77060	Barrels
17.	**Marketable petroleum coke—unrefined or green.**	78060	Barrels
18.	**Marketable petroleum coke—calcined.**	79060	Barrels
19.	**Waste oils and tars, excluding coal tar.**	71060	Barrels
20.	**Other petroleum-based combustible energy source not specified above:** 95980 **Please specify:**	95060	Million BTU
		95990	Specify Units
21.	**Other petroleum-based combustible energy source not specified above:** 96980 **Please specify:**	96060	Million BTU
		96990	Specify Units

Natural Gas

	Natural Gas: Units		
1.	**Please indicate the units for the quantity that you will be reported below.** ***** Please use this unit for reporting the remainder of the Natural Gas quantity questions.***	"Census Use Only" 31111	❑ **1. Therms** ❑ **2. Decatherms (Dth)** ❑ **3. 1,000 Cubic Feet (Mcf)** ❑ **4. 100 Cubic Feet (Ccf)** ❑ **5. Million British Thermal Units (MMBtu)**
	Natural Gas: Total Purchased		
2.	**Enter the total quantity of natural gas purchased by and delivered to this establishment during 2006, regardless of when payment was made.**	30010	Units
3.	**Enter total expenditures; including all applicable taxes and any delivery, management, transportation, and demand charges, for the purchased natural gas reported in question 2.**	30020	$ U.S. Dollars
	Natural Gas: Source of Purchase		
4.	**During 2006, where did this establishment's purchased natural gas come from?** **Local utility:** the company in your local area that produces and/or delivers natural gas and is legally obligated to provide service to the general public within its franchise area. **Non-utility:** include independent producers, brokers, marketers, and any marketing subsidiaries of utilities.	30015	❑ **1. All local utility: Answer question 5 then skip to question 8** ❑ **2. All non-utility: Answer question 5 then skip to question 8** ❑ **3. Both**
5.	**Please specify the utility/non-utility provider from whom you purchased your natural gas:** If this establishment purchases from more than one provider, please provide the largest provider. 30016		
6.	**Enter the quantity of your total purchased natural gas that was purchased from a local utility during 2006.**	31010	Units
7.	**Enter the total expenditures of your purchased natural gas that was paid to a local utility.**	31020	$ U.S. Dollars

Natural Gas

	Natural Gas: Transferred In and Produced On-site		
8.	**Enter the total quantity of natural gas transferred in or otherwise received on-site without a direct open market purchase.** Include quantities: • For which payment, if any, does not represent an open-market transaction; • For which payment was made in-kind (i.e., barter); • Received from an entity in which your establishment or company has a share of ownership or special sharing of revenue (e.g., in a performance service contract).	"Census Use Only" 30030	Units
9.	**Enter the quantity of natural gas that was both produced on-site during 2006 as output from a captive (on-site) well, and was at least partially consumed on-site (as a fuel or nonfuel).**	30040	Units
	Natural Gas: Consumption		
10.	**Enter the total quantity of natural gas consumed as a fuel at this establishment during 2006.** Include all uses that were used for the heat, power, and electricity generation. Also, include fuel consumed by vehicles intended primarily for use **on-site**.	30060	Units

Natural Gas: Estimated End-Use Percent Consumption

The following questions refer to how this establishment consumed the natural gas that was previously reported in question 10 *(please enter as a percentage of total consumption for each end use performed)*. A plant engineer or someone who is familiar with energy flows at this establishment should report this data.

11. **Enter the percentage of total natural gas (from question 10) that this establishment consumed as the following:**

Indirect Uses – Boilers: indirect use is the transformation of energy to another usable energy source, as in a boiler, gas turbine, or combustion turbine.	"Census Use Only"	**Natural Gas**
• **Boiler fuel in a Combined Heat and Power (CHP) and/or cogeneration process**	30705	**%**
• **Other boiler fuel (not included above)** *(includes fuels used for thermal outputs only)*	30710	**%**
Direct Uses- Process: direct process use includes usage in motors, ovens, kilns, and strip heaters.		
• **Process heating** (e.g., kilns, furnaces, ovens, strip heaters)	30720	**%**
• **Process cooling and refrigeration**	30730	**%**
• **Machine drive** (e.g., motors, pumps, etc. associated with manufacturing process equipment)	30740	**%**
• **Other direct process use:** 30761 **Please specify:**	30760	**%**
Direct Uses – Non-process: direct non-process use includes usage for facility lighting and space-conditioning equipment (HVAC).		
• **Facility heating, ventilation, and air conditioning**	30770	**%**
• **Facility support other than that reported above** (e.g.: cooking, water heating, office equipment)	30790	**%**
• **On-site transportation, excluding highway usage**	30800	**%**
• **Conventional electricity generation**	30810	**%**
• **Other direct non-process use:** 30821 **Please specify:**	30820	**%**
		TOTAL 100%

Steam or Industrial Hot Water

Steam or Industrial Hot Water: Total Purchased				
		"Census Use Only"	(11)	(12)
			Steam ↓	**Industrial Hot Water** ↓
1.	**Enter the total quantity of the energy source (column) purchased by and delivered to this establishment during 2006, regardless of when payment was made.**	061	Million Btu	Million Btu
2.	**Enter total expenditures; including all applicable taxes and any delivery, management, transportation, and demand charges, for the quantity reported in question 1.**	062	$ U.S. Dollars	$ U.S. Dollars
Steam, Industrial Hot Water: Purchased from Local Utility and Non-Utility Sources				
3.	**During 2006, where did this establishment's purchased steam come from?** **Local utility** means the company in your local area that produces and/or delivers steam and is legally obligated to provide service to the general public within its franchise area. The term "**non-utility**" includes generator of steam such as independent power producer, small power producers, brokers, marketers, marketing subsidiaries of utilities, or co-generator not owned by your company.	015	❑ **1. All local utility: Answer question 4 then skip to question 7** ❑ **2. All non-utility: Answer question 4 then skip to question 7** ❑ **3. Both:**	
4.	**Please specify the utility/non-utility provider from whom you purchased your steam:** If this establishment purchases from more than one provider, please provide the largest provider.	016		
5.	**Enter the quantity of your total purchased steam that was purchased from a local utility during 2006.**	010	Million Btu	

Steam or Industrial Hot Water

		"Census Use Only"	(11)	(12)
			Steam ↓	**Industrial Hot Water** ↓
6.	**Enter the total expenditures of your purchased steam that came from a local utility.**	020	$ U.S. Dollars	
	Steam or Industrial Hot Water: Transfers			
7.	**Enter the total quantity of the energy source transferred in or otherwise received on-site without a direct open market purchase.** Include quantities: •For which payment, if any, does not represent an open –market transaction; •For which payment was made in-kind (i.e., barter); •Received from an entity in which your establishment or company has a share of ownership or special sharing of revenue (e.g., in a performance service contract)	050	Million Btu	Million Btu
	Steam or Industrial Hot Water: Generated On-site			
8.	**Enter the quantity of steam or hot water generated on-site from each of the following:**			
	•Solar Power	081	Million Btu	Million Btu
	•Wind Power	082	Million Btu	Million Btu
	•Hydropower	083	Million Btu	Million Btu
	•Geothermal Power	084	Million Btu	Million Btu

Steam or Industrial Hot Water: Sales and Transfers Off-site				
		"Census Use Only"	(11)	(12)
			Steam ↓	**Industrial Hot Water** ↓
9.	**Enter the quantity of the energy source transferred out of this establishment during 2006.** Include quantities exchanged for the same or any other energy source. Exclude sales to independent power producers, small power producers, or co-generators not located at this establishment.	110	Million Btu	Million Btu

Coal: Purchased, Transferred, and Produced

		"Census Use Only"	(40)	(41)	(42)
			Anthracite ↓	**Bituminous and Subbituminous** ↓	**Lignite** ↓
1.	**Enter the total quantity of the energy source (column) purchased by and delivered to this establishment during 2006, regardless of when payment was made.**	010	Short tons	Short tons	Short tons
2.	**Enter the total expenditures; including all applicable taxes and delivery, management, transportation, and demand charges, for the quantity reported in question 1.**	020	$ U.S. Dollars	$ U.S. Dollars	$ U.S. Dollars
3.	**Enter the total quantity of the energy source transferred in or otherwise received on-site without a direct open market purchase.** Include quantities: •For which payment, if any, does not represent an open-market transaction; •For which payment was made in-kind (i.e., barter); •Received from an entity in which your establishment or company has a share of ownership or special sharing of revenue (e.g., in a performance service contract.)	030	Short tons	Short tons	Short tons
4.	**Enter the quantity of the energy source produced on-site during 2006.**	040	Short tons	Short tons	Short tons

Coal: Consumption

		"Census Use Only"	(40)	(41)	(42)
			Anthracite ↓	**Bituminous and Subbituminous** ↓	**Lignite** ↓
5.	**Enter the total quantity of the energy source consumed as a fuel in this establishment during 2006.** Include all uses that were used for the heat, power, and electricity generation. Also, include fuel consumed by vehicles intended primarily for use on-site.	060	Short tons	Short tons	Short tons

Coal: Estimated End-Use Percent Consumption

The following questions refer to how this establishment consumed the energy source that was previously reported question 5 (*please enter as a percentage of total consumption for each end use performed).* A plant engineer or someone who is familiar with energy flows at this establishment should report this data.

6.	***Enter the percentage of the total energy source (question 5 column 1 + question 5 column 2 + question 5 column 3) that this establishment consumed as the following:***		
	Indirect Uses – Boilers: indirect use is the transformation of energy to another usable energy source, as in a boiler, gas turbine, or combustion turbine.	"Census Use Only"	**TOTAL COAL (exclude coal coke and breeze)**
	Boiler fuel in a Combined Heat and Power (CHP) and/or cogeneration process	46705	**%**
	Other boiler fuel (not included above) *(includes fuels used for thermal outputs only)*	46710	**%**
	Direct Uses – Process: direct process use includes usage in motors, ovens, kilns, and strip heaters.		
	•**Process heating** (e.g., kilns, furnaces, ovens, strip heaters)	46720	**%**
	•**Process cooling and refrigeration**	46730	**%**
	•**Machine drive** (e.g., motors, pumps, etc. associated with manufacturing process equipment)	46740	**%**
	•**Other direct process use:** 46761 **Please specify:**	46760	**%**
	Direct Uses – Non-process: direct non process use includes usage for facility lighting and space-conditioning equipment (HVAC).		
	•**Facility heating, ventilation, and air conditioning**	46770	**%**
	•**Facility support other than that reported above** (e.g.: cooking, water heating, office equipment)	46790	**%**
	•**Conventional electricity generation**	46810	**%**
	•**Other direct non-process use:** 46821 **Please specify:**	46820	**%**
			TOTAL 100%

Breeze or Coal Coke

Breeze or Coal Coke: Purchased, Transferred, and Produced				
		"Census Use Only"	(44)	(43)
			Breeze ↓	**Coal Coke** ↓
1.	**Enter the total quantity of the energy source (column) purchased by and delivered to this establishment during 2006, regardless of when payment was made.**	010	Short tons	Short tons
2.	**Enter the total expenditures; including all applicable taxes and delivery, management, transportation, and demand charges, for the quantity reported in question 1.**	020	$ U.S. Dollars	$ U.S. Dollars
3.	**Enter the total quantity of the energy source transferred in or otherwise received on-site without a direct open market purchase.** Include quantities: •For which payment, if any, does not represent an open-market transaction; •For which payment was made in-kind (i.e., barter); •Received from an entity in which your establishment or company has a share of ownership or special sharing of revenue (e.g., in a performance service contract.)	030	Short tons	Short tons
4.	**Enter the quantity of the energy source produced on-site during 2006.**	040	Short tons	Short tons

Breeze or Coal Coke: Consumption				
		"Census Use Only"	(44)	(43)
			Breeze ↓	**Coal Coke** ↓
5.	**Enter the total quantity of the energy source consumed as a fuel in this establishment during 2006.** Include all uses that were used for the heat, power, and electricity generation. Also, include fuel consumed by vehicles intended primarily for use on-site.	060	Short tons	Short tons

Hydrogen or Wood Fuel Wood/Paper Refuse

Hydrogen or Wood Fuel Wood/Paper Refuse: Purchase, Transfer, Produce, and Consumption				
		"Census Use Only"	(63)	(72)
			Hydrogen ↓	**Wood Fuel Wood/Paper Refuse** ↓
1.	**Enter the total quantity of the energy source (column) purchased by and delivered to this establishment during 2006, regardless of when payment was made.**	010	Cubic Feet	Million Btu
2.	**Enter the total expenditures; including all applicable taxes and any delivery, management, transportation, and demand charges, for the quantity reported in question 1.**	020	$ U.S. Dollars	$ U.S. Dollars
3.	**Enter the total quantity of the energy source transferred in or otherwise received on-site without a direct open market purchase.** Include quantities: •For which payment, if any, does not represent an open-market transaction; •For which payment was made in-kind (i.e., barter); •Received from an entity in which your establishment or company has a share of ownership or special sharing of revenue (i.e., in a performance service contract.)	030	Cubic Feet	Million Btu
4.	**Enter the quantity of the energy source produced on-site during 2006.**	040	Cubic Feet	Million Btu
5.	**Enter the total quantity of the energy source consumed as a fuel at this establishment during 2006.** Include all uses that were used for the heat, power, and electricity generation. Also, include fuel consumed by vehicles intended primarily for use on-site.	060	Cubic Feet	Million Btu

Other Energy Sources

Other Energy Sources: Total Purchased, Transferred and Produced

		"Census Use Only"	(97)	(98)	(99)
			Other ↓	**Other ↓**	**Other ↓**
1.	**Specify the name and units (e.g., gallons, million Btu, cubic feet, etc.) of any energy source purchased or consumed in this establishment that has not been previously asked.** ***Do not include: oxygen, carbon dioxide, nitrogen, argon, or helium.**	980	Energy source	Energy source	Energy source
		981	Units	Units	Units
2.	**Enter the total quantity of the other energy source (column) purchased by and delivered to this establishment during 2006, regardless of when payment was made.**	010	Units	Units	Units
3.	**Enter total expenditures; including all applicable taxes and any delivery, management, transportation, and demand charges, for the quantity reported in question 2.**	020	$ U.S. Dollars	$ U.S. Dollars	$ U.S. Dollars
4.	**Enter the total quantity of the other energy source transferred in or otherwise received on-site without a direct open market purchase.** Include quantities: •For which payment, if any, does not represent an open-market transaction; •For which payment was made in-kind (i.e., barter); •Received from an entity in which your establishment or company has a share or ownership or special sharing of revenue (e.g., in a performance service contract.)	030	Units	Units	Units
5.	**Enter the quantity of the other energy source produced on-site during 2006.**	040	Units	Units	Units

Other Energy Sources

Other Energy Source: Consumption					
		"Census Use Only"	(97)	(98)	(99)
			Other ↓	**Other ↓**	**Other ↓**
6.	**Does the quantity reported in produced on-site represent the product or byproduct of another energy source consumed on-site?**	050	❑ **1. Yes, product or byproduct** ❑ **2. No**	❑ **1. Yes, product or byproduct** ❑ **2. No**	❑ **1. Yes, product or byproduct** ❑ **2. No**
7.	**Enter the total quantity of the other energy source consumed as a fuel at this establishment during 2006.** Include all uses that were used for the heat, power, and electricity generation. Also, include fuel consumed by vehicles intended primarily for use on-site.	060	Units	Units	Units

Fuel Switching Capability: Electricity, Natural Gas and Total Coal

- Capability to use substitute energy sources means that this establishment's combustors (for example, boilers, furnaces, ovens, blast furnaces) had the equipment, either in place or available for installation in 2006, so that substitutions could actually have been introduced within 30 days without extensive modifications.
- Include switching capability that could have resulted from the use of redundant and/or standby combustors, and from combustors that were already equipped to fire alternative fuels.
- In addition to the capability of your equipment, when formulating your estimates:
  - Make sure to consider both the equipment limitations of your boilers, heaters, and combustors and any other practical reasons when determining the availability of supply during 2006.

    Equipment limitations include:
    - The boilers, heaters, or other fuel-consuming equipment are not capable of using anything other than specify fuel for at least part of the operations.
    - Although the boilers, heaters, or combustors would allow using another fuel, doing so would adversely affect a product. Ex. altering the pigment in a paint-drying application.

    Practical reasons include:
    - There is no ready supply of an alternative energy source.
    - Environmental restrictions related to air quality limit the amount of the physically usable alternative fuel that could be used instead.
    - A long-term contract in-place that requires the purchase of certain amounts of the energy source in any case.
    - Storage of alternative fuels is not available due to potential environmental impact of storage tanks.

  - Do not limit your estimated capability by differences in relative prices of energy sources.
- This section is intended to measure your capability to switch, not whether you would switch if you could.
- When estimating your capability to substitute other fuels for electricity receipts, please consider the fuels that could be used to generate electricity onsite, as well as those that could be directly substituted in combustors.
- If records of fuel-switching capability are not regularly maintained, reasonable approximations are acceptable.
- Enter a zero if the fuel could not be switched for the specific energy source.
- Please proceed through this section column-by-column.

Fuel Switching Capability: Electricity, Natural Gas and Total Coal

The next four questions are designed as a worksheet. You will need to refer back to some sections of the form that you have already filled out to record the figures you have reported.

1.	Referring back to the Electricity section, question 1 page 1. Please enter the quantity of reported purchased electricity.	_____
2.	Referring back to the Electricity section, question 7 page 1. Please enter the quantity of reported transferred electricity.	_____
3.	**Add lines from question 1 and 2 (question 1 + question 2). Enter the total in the box.**	10503
4.	Referring back to the Natural Gas section, question 10 page 2. Please enter the quantity of reported natural gas consumed. Enter the figure in the box.	30503
5.	Referring back to the Coal section, question 5 page 2. Please add the quantity of reported anthracite, bituminous and subbituminous and lignite consumed. Enter the total in the box.	46503

		"Census Use Only"	(10)	(30)	(46)
			Total Electricity Received Transfers + purchase ↓	**Total Natural Gas** ↓	**Total ALL Coal** (excluding Coal Coke & Breeze) ↓
6.	**Enter the total quantity of the energy source (column) you reported as consumed during 2006.** Copy this figure from the above worksheet questions.	500	Kilowatthours **Enter figure from question 3.**	1,000 cubic feet **Enter figure from question 4.**	Short tons **Enter figure from question 5.**
7.	**Is the total quantity reported in question 6 greater than zero?**	501	❑ **1. Yes** ❑ **2. No:** Skip to question 6, next column.	❑ **1. Yes** ❑ **2. No:** Skip to question 6, next column.	❑ **1. Yes** ❑ **2. No:** Skip to next section.
8.	**Enter the amount of the total quantity you reported in question 6 that could NOT have been replaced within 30 days by another energy source during 2006.** Consider both the equipment limitations of your boilers, heaters, and combustors and any other practical reason. Do not consider differences in energy prices when estimating the amount.	510	Kilowatthours	1,000 cubic feet	Short tons

Fuel Switching Capability: Electricity, Natural Gas and Total Coal

		"Census Use Only"	(10) **Total Electricity Received** Transfers + purchase ↓	(30) **Total Natural Gas** ↓	(46) **Total ALL Coal** (excluding Coal Coke & Breeze) ↓
9.	**Is the total quantity in question 8 equal to zero?**	511	❑ **1. Yes:** Skip to question 11. ❑ **2. No**	❑ **1. Yes:** Skip to question 11. ❑ **2. No**	❑ **1. Yes:** Skip to question 11. ❑ **2. No**
10.	**Referring to the quantity shown in question 8, please check all the reasons that made this quantity unswitchable.**				
	The boilers, heaters, or other fuel-consuming equipment are NOT capable of using another fuel for at least part of the operations during the year.	526	❑ 1	❑ 1	❑ 1
	Switching to the usable alternatives would adversely affect the products.	528	❑ 1	❑ 1	❑ 1
	Although the heating equipment could use another fuel, there was no readily available supply of it during at least part of the year.	533	❑ 1	❑ 1	❑ 1
	Environmental restrictions related to air quality limit the amount of the physically usable alternative fuel that could be used instead.	534	❑ 1	❑ 1	❑ 1
	A long-term contract is in-place that requires the purchase of certain amounts of this fuel in any case.	536	❑ 1	❑ 1	❑ 1
	Storage of usable alternative fuels is not available due to potential environmental impact of storage tanks.	537	❑ 1	❑ 1	❑ 1
	Other please specify:	999			
	Don't know	539	❑ 1	❑ 1	❑ 1

Fuel Switching Capability: Electricity, Natural Gas and Total Coal

		"Census Use Only"	(10)	(30)	(46)
			Total Electricity Received Transfers + purchase ↓	**Total Natural Gas** ↓	**Total ALL Coal** (excluding Coal Coke & Breeze) ↓
11.	**Enter the results of subtracting the quantity reported in question 8 from the quantity reported in question 6.** This represents the total quantity of energy consumption that could have been replaced in 30 days by one or more alternative energy sources in 2006. Note: the sum of the quantities in question 13 through 20 should equal or exceed this quantity.	520	☐ Kilowatthours	☐ 1,000 cubic feet	☐ Short tons
12.	**Is the total quantity reported in question 11 greater than zero?**	521	☐ **1. Yes** ☐ **2. No:** Skip to next column.	☐ **1. Yes** ☐ **2. No:** Skip next column.	☐ **1. Yes** ☐ **2. No:** Skip to next section.
13.	**Of the quantity switchable in question 11 what is the maximum amount that could have been replaced by <u>electricity</u>?**	530		☐ 1,000 cubic feet	☐ Short tons
14.	**Of the quantity reported as switchable in question 11 what is the maximum amount that could have been replaced by <u>total coal, excluding coal coke and breeze</u>?**	670	☐ Kilowatthours	☐ 1,000 cubic feet	
15.	**Of the quantity reported as switchable in question 11 what is the maximum amount that could have been replaced by <u>total coal coke and breeze, excluding coal</u>?**	690	☐ Kilowatthours	☐ 1,000 cubic feet	
16.	**Of the quantity reported as switchable in question 11 what is the maximum amount that could have been replaced by <u>natural gas</u>?**	570	☐ Kilowatthours		☐ Short tons

Fuel Switching Capability: Electricity, Natural Gas and Total Coal					
			(10)	(30)	(46)
		"Census Use Only"	**Total Electricity Received** Transfers + purchase ↓	**Total Natural Gas** ↓	**Total ALL Coal** (excluding Coal Coke & Breeze) ↓
17.	**Of the quantity reported as switchable in question 11 what is the maximum amount that could have been replaced by <u>total diesel fuel and distillate fuel oil</u>?**	590	Kilowatthours	1,000 cubic feet	Short tons
18.	**Of the quantity reported as switchable in question 11 what is the maximum amount that could have been replaced by <u>liquefied petroleum gas (LPG)</u>?**	610	Kilowatthours	1,000 cubic feet	Short tons
19.	**Of the quantity reported as switchable in question 11 what is the maximum amount that could have been replaced by <u>residual fuel oil</u>?**	630	Kilowatthours	1,000 cubic feet	Short tons
20.	**Of the quantity reported as switchable in question 11 what is the maximum amount that could have been replaced by any other energy source not already asked about?**	650	Kilowatthours	1,000 cubic feet	Short tons
	Please Specify:	990			

Fuel Switching Capability: Electricity, Natural Gas and Total Coal

What is the lowest percentage of price difference of the less expensive substitute that would cause your establishment to switch from this fuel, regardless of whether or not your establishment actually switched energy sources during 2006 or did so because of a less expensive substitute? (If you have more than one possible alternative for the energy source, choose the fuel that would be your most preferred alternative.)

The formula for percentage of price difference is:

- Percent of Price Difference = ((PC-PA)/PC) * 100%
- Where PC=Price per British thermal unit of current fuel
- PA=Price per British thermal unit of alternative fuel

		"Census Use Only"	(10)	(30)	(46)
		622	**Total Electricity Received** Transfers + purchase ↓	**Total Natural Gas** ↓	**Total ALL Coal** (excluding Coal Coke & Breeze) ↓
			Check one for each energy source (column) reported		
21.	**Would not switch regardless of price difference.**		❑ 1	❑ 1	❑ 1
	Would switch at price difference 1-10 percent.		❑ 2	❑ 2	❑ 2
	Would switch at price difference 11-25 percent.		❑ 3	❑ 3	❑ 3
	Would switch at price difference 26-50 percent.		❑ 4	❑ 4	❑ 4
	Would switch at price difference over 50 percent.		❑ 5	❑ 5	❑ 5
	Reasonable estimates cannot be provided.		❑ 6	❑ 6	❑ 6
	Would switch to the more expensive substitute if price premium were reasonable.		❑ 7	❑ 7	❑ 7

Fuel Switching Capability: Total LPG & NGL, Diesel & Distillate and Residual

- Capability to use substitute energy sources means that this establishment's combustors (for example, boilers, furnaces, ovens, blast furnaces) had the equipment, either in place or available for installation in 2006, so that substitutions could actually have been introduced within 30 days without extensive modifications.
- Include switching capability that could have resulted from the use of redundant and/or standby combustors, and from combustors that were already equipped to fire alternative fuels.
- In addition to the capability of your equipment, when formulating your estimates:
    - Make sure to consider both the equipment limitations of your boilers, heaters, and combustors and any other practical reasons when determining the availability of supply during 2006.

Equipment limitations include:

- The boilers, heaters, or other fuel-consuming equipment are not capable of using anything other than specify fuel for at least part of the operations.
- Although the boilers, heaters, or combustors would allow using another fuel, doing so would adversely affect a product. Ex. altering the pigment in a paint-drying application.

Practical reasons include:

- There is no ready supply of an alternative energy source.
- Environmental restrictions related to air quality limit the amount of the physically usable alternative fuel that could be used instead.
- A long-term contract in-place that requires the purchase of certain amounts of the energy source in any case.
- Storage of alternative fuels is not available due to potential environmental impact of storage tanks.

    - Do not limit your estimated capability by differences in relative prices of energy sources.
- This section is intended to measure your capability to switch, not whether you would switch if you could.
- When estimating your capability to substitute other fuels for electricity receipts, please consider the fuels that could be used to generate electricity onsite, as well as those that could be directly substituted in combustors.
- If records of fuel-switching capability are not regularly maintained, reasonable approximations are acceptable.
- Enter a zero if the fuel could not be switched for the specific energy source.
- Please proceed through this section column-by-column.

Fuel Switching Capability: Total LPG & NGL, Diesel & Distillate and Residual

The next four questions are designed as a worksheet. You will need to refer back to some sections of the form that you have already filled out to record the figures you have reported.

1.	Referring back to the Petroleum-based Energy Sources section, question 7 page 1. Please enter the reported quantity of LPG & NGL. Enter the figure in the box.	24503	
2.	Referring back to the Petroleum-based Energy Sources section, question 11 page 3. Please enter the reported quantity of diesel and distillate fuel consumed. Enter the figure in the box.	22503	
3.	Referring back to the Petroleum-based Energy Sources section, question 14 page 4. Please enter the reported quantity of residual fuel consumed. Enter the figure in the box.	21503	

		"Census Use Only"	(24)	(22)	(21)
			Total LPG & NGL ↓	**Total Diesel Fuel & Distillate Fuel Oil** ↓	**Residual Fuel Oil** ↓
4.	**Enter the total quantity of the energy source you reported as consumed during 2006.** Copy this figure from above worksheet questions.	500	Gallons **Enter figure from question 1.**	Barrels **Enter figure from question 2.**	Barrels **Enter figure from question 3.**
5.	**Is the total quantity reported in question 4 greater than zero?**	501	❑ **1. Yes** ❑ **2. No:** Skip to question 4, next column.	❑ **1. Yes** ❑ **2. No:** Skip to question 4, next column.	❑ **1. Yes** ❑ **2. No:** Skip to next section.
6.	**Enter the amount of the total quantity you reported in question 4 that could NOT have been replaced within 30 days by another energy source during 2006.** Consider both the equipment limitations of your boilers, heaters, and combustors and any other practical reason. Do not consider differences in energy prices when estimating the amount.	510	Gallons	Barrels	Barrels

Fuel Switching Capability: Total LPG & NGL, Diesel & Distillate and Residual

		"Census Use Only"	(24)	(22)	(21)
			Total LPG & NGL ↓	**Total Diesel Fuel & Distillate Fuel Oil** ↓	**Residual Fuel Oil** ↓
7.	**Is the total quantity in question 6 equal to zero?**	511	❑ **1. Yes:** Skip to question 9. ❑ **2. No**	❑ **1. Yes:** Skip to question 9. ❑ **2. No**	❑ **1. Yes:** Skip to question 9. ❑ **2. No**
8.	**Referring to the quantity shown in question 6, please check all the reasons that made this quantity unswitchable.**				
	The boilers, heaters, or other fuel-consuming equipment are NOT capable of using another fuel other than this fuel for at least part of the operations during the year.	526	❑1	❑1	❑1
	Switching to the usable alternatives would adversely affect the products.	528	❑1	❑1	❑1
	Although the heating equipment could use another fuel, there was no readily available supply of it during at least part of the year.	533	❑1	❑1	❑1
	Environmental restrictions related to air quality limit the amount of the physically usable alternative fuel that could be used instead.	534	❑1	❑1	❑1
	A long-term contract is in-place that requires the purchase of certain amounts of this fuel in any case.	536	❑1	❑1	❑1
	Storage of usable alternative fuels is not available due to potential environmental impact of storage tanks.	537	❑1	❑1	❑1
	Other please specify:	999			
	Don't know	539	❑1	❑1	❑1

Fuel Switching Capability: Total LPG & NGL, Diesel & Distillate and Residual					
		"Census Use Only"	(24)	(22)	(21)
			Total LPG & NGL ↓	**Total Diesel Fuel & Distillate Fuel Oil** ↓	**Residual Fuel Oil** ↓
9.	**Enter the results of subtracting the quantity reported in question 6 from the quantity reported in question 4.** This represents the total quantity of energy consumption that could have been replaced in 30 days by one or more alternative energy sources in 2006. Note: the sum of the quantities in question 11through 18 should equal or exceed this quantity.	520	Gallons	Barrels	Barrels
10.	**Is the total quantity reported in question 9 greater than zero?**	521	❑ **1. Yes** ❑ **2. No:** Skip to next column.	❑ **1. Yes** ❑ **2. No:** Skip to next column.	❑ **1. Yes** ❑ **2. No:** Skip to next section.
11.	**Of the quantity switchable in question 9 what is the maximum amount that could have been replaced by <u>electricity</u>?**	530	Gallons	Barrels	Barrels
12.	**Of the quantity reported as switchable in question 9 what is the maximum amount that could have been replaced by <u>total coal, excluding coal coke and breeze</u>?**	670	Gallons	Barrels	Barrels
13.	**Of the quantity reported as switchable in question 9 what is the maximum amount that could have been replaced by <u>total coal coke and breeze, excluding coal</u>?**	690	Gallons	Barrels	Barrels

Fuel Switching Capability: Total LPG & NGL, Diesel & Distillate and Residual

		"Census Use Only"	(24)	(22)	(21)
			Total LPG & NGL ↓	**Total Diesel Fuel & Distillate Fuel Oil** ↓	**Residual Fuel Oil** ↓
14.	**Of the quantity reported as switchable in question 9 what is the maximum amount that could have been replaced by <u>natural gas</u>?**	570	Gallons	Barrels	Barrels
15.	**Of the quantity reported as switchable in question 9 what is the maximum amount that could have been replaced by <u>total diesel fuel and distillate fuel oil</u>?**	590	Gallons		Barrels
16.	**Of the quantity reported as switchable in question 9 what is the maximum amount that could have been replaced by <u>liquefied petroleum gas (LPG)</u>?**	610		Barrels	Barrels
17.	**Of the quantity reported as switchable in question 9 what is the maximum amount that could have been replaced by <u>residual fuel oil</u>?**	630	Gallons	Barrels	
18.	**Of the quantity reported as switchable in question 9 what is the maximum amount that could have been replaced by any other energy source not already asked about?**	650	Gallons	Barrels	Barrels
	Please Specify:	990			

Fuel Switching Capability: Total LPG & NGL, Diesel & Distillate and Residual

What is the lowest percentage of price difference of the less expensive substitute that would cause your establishment to switch from this fuel, regardless of whether or not your establishment actually switched energy sources during 2006 or did so because of a less expensive substitute? (If you have more than one possible alternative for the energy source, choose the fuel that would be your most preferred alternative.)

The formula for percentage of price difference is:

- Percent of Price Difference = ((PC-PA)/PC) * 100%
- Where PC=Price per British thermal unit of current fuel
- PA=Price per British thermal unit of alternative fuel

		"Census Use Only"	(24)	(22)	(21)
		622	**Total LPG & NGL** ↓	**Total Diesel Fuel & Distillate Fuel Oil** ↓	**Residual Fuel Oil** ↓
			Check one for each energy source (column) reported		
19.	**Would not switch regardless of price difference.**		❑1	❑1	❑1
	Would switch at price difference 1-10 percent.		❑2	❑2	❑2
	Would switch at price difference 11-25 percent.		❑3	❑3	❑3
	Would switch at price difference 26-50 percent.		❑4	❑4	❑4
	Would switch at price difference over 50 percent.		❑5	❑5	❑5
	Reasonable estimates cannot be provided.		❑6	❑6	❑6
	Would switch to the more expensive substitute if price premium were reasonable.		❑7	❑7	❑7

Energy-Management Activities

For Questions 19 through 30: **Please mark only one answer for each energy-management question.**			
19.	Does this establishment have an energy manager? (i.e., a person whose major function is to direct or plan energy strategies relating to energy use and energy-efficient technology within the establishment)		1 Yes ➔ 2 No {13460} 3 Don't Know
20.	Does your establishment set goals for improving energy efficiency?		1 Yes ➔ 2 No {13470} 3 Don't Know
21.	Does your establishment measure and monitor how much steam is used to produce a unit of product? (i.e. lbs of steam needed per unit of product produced)		1 Yes ➔ 2 No {13471} 3 Don't Know 4 Not Applicable (NA)
22.	Does your establishment have dedicated staff that performs insulation inspections to monitor and maintain the condition of steam system insulation?		1 Yes ➔ 2 No {13472} 3 Don't Know 4 Not Applicable (NA)
23.	Does your establishment have a formal steam system maintenance program that includes the following activities:	a. At least annual testing of all steam traps	1 Yes ➔ 2 No {13473} 3 Don't Know 4 Not Applicable (NA)
		b. Maintaining a steam trap database	1 Yes ➔ 2 No {13474} 3 Don't Know 4 Not Applicable (NA)
		c. At least annual inspections and repairs of steam leaks	1 Yes ➔ 2 No {13475} 3 Don't Know 4 Not Applicable (NA)
24.	Does your establishment measure oxygen and carbon dioxide (or combustible) levels in boiler and other fuel fired heating equipment flue gasses to "tune" the burners?		1 Yes ➔ 2 No {13476} 3 Don't Know
25.	Does your establishment use the flue gases from fuel fired heating equipment to preheat combustion air, preheat charge equipment/material, or provide heat for other processes in your establishment?		1 Yes ➔ 2 No {13477} 3 Don't Know
26.	Does your establishment's process heating system maintenance program include the following activities?	a. Furnace inspections to seal openings and repair cracks and damaged insulation in furnace walls, doors, etc.	1 Yes ➔ 2 No {13478} 3 Don't Know
		b. Cleaning of heat transfer surfaces to avoid build up of soot, scale, or other material.	1 Yes ➔ 2 No {13479} 3 Don't Know
		c. Inspecting, calibrating, and adjusting temperature/pressure sensors, controllers, valve operators, etc.	1 Yes ➔ 2 No {13480} 3 Don't Know
27.	Do you keep an inventory of all motors in your establishment?		1 Yes ➔ 2 No {13481} 3 Don't Know
28.	Have you conducted a plant-wide study to identify the major energy consuming pump systems in your establishment?		1 Yes ➔ 2 No {13482} 3 Don't Know
29.	Does your establishment have staff or equipment dedicated to detecting and controlling compressed air system leaks?		1 Yes ➔ 2 No {13483} 3 Don't Know
30.	Does your establishment track the amount of energy spent in compressed air systems?		1 Yes ➔ 2 No {13484} 3 Don't Know

Energy-Management Activities

For questions 1 through 8:
Indicate with a "yes" or a "no" under the "Participate?" column whether your establishment participated in or used the specified type of energy-management assistance between January 1, 2006 and December 31, 2006.

For any assistance for which you marked "yes", please mark the source(s) of assistance.

"In-house" means your establishment or company provided the energy-management assistance.

"Utility/Energy Supplier" refers to either your electricity, natural gas, or other energy supplier/provider.

"Product or Service Provider" includes any other third party product or service provider/supplier such as an equipment vendor, energy service company, or maintenance service company.

"Federal Program" includes assistance provided by federal government programs or agencies such as the Department of Energy (DOE), the Environmental Protection Agency (EPA), and the National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership (MEP).

"State or Local Program" includes all assistance provided by a state, city, or county government program or agency.

	Type of Energy-Management Assistance	Participate? {13}	Source of Assistance (check all that apply)					
			In-house {15}	Utility/ Energy Supplier {16}	Product or Service Provider {17}	Federal Program {18}	State or Local Program {19}	Don't Know {32}
1.	**Energy audit or assessment**	1☐Yes▶ 2☐ No {060}	3☐	4☐	7☐	8☐	9☐	6☐
2.	**Technical assistance** (e.g., consultation, demonstrations, engineering design or analysis)	1☐Yes▶ 2☐ No {070}	3☐	4☐	7☐	8☐	9☐	6☐
3.	**Technical information** (e.g., software, reference material)	1☐Yes▶ 2☐ No {072}	3☐	4☐	7☐	8☐	9☐	6☐
4.	**Training** (e.g., workshops, seminars, presentations)	1☐Yes▶ 2☐ No {074}	3☐	4☐	7☐	8☐	9☐	6☐
5.	**Financial assistance** (e.g., loans, tax credits, rebates, subsidies)	1☐Yes▶ 2☐ No {076}	3☐	4☐	7☐	8☐	9☐	6☐
6.	**Electricity load control**	1☐Yes▶ 2☐ No {080}	3☐	4☐	7☐	8☐	9☐	6☐
7.	**Power factor correction or improvement**	1☐Yes▶ 2☐ No {380}	3☐	4☐	7☐	8☐	9☐	6☐
8.	**Equipment installation or retrofit** for the primary purpose of using a different energy source (e.g., electrification) Exclude modifications made primarily for energy efficiency; those should be included in questions 12 – 18.	1☐Yes▶ 2☐ No {240}	3☐	4☐	7☐	8☐	9☐	6☐

Energy-Management Activities

	Type of Energy-Management Assistance	Participate? {13}	Source of Assistance (check all that apply)					
			In-house {15}	Utility/ Energy Supplier {16}	Product or Service Provider {17}	Federal Program {18}	State or Local Program {19}	Don't Know {32}
9.	**Standby generation program**	1☐Yes▶ 2☐ No {260}	3☐	4☐	7☐	8☐	9☐	6☐
10.	**Special rate schedule** (e.g., interruptible or time-of-use)	1☐Yes▶ 2☐ No {100}		4☐	7☐			6☐
11.	**Interval metering needed to manage energy use for programs such as real-time pricing**	1☐Yes▶ 2☐ No {250}		4☐	7☐			6☐

For Questions 12 through 18:
Indicate with a "yes" or a "no" under the "Installed Equipment or Retrofit?" column whether your establishment installed equipment or any retrofits for the primary purpose of improving energy efficiency for the indicated system between January 1, 2006 and December 31, 2006. For any activity for which you marked "yes" please mark the source (s) of financial support for the activity. Please use the sources defined above question 1.

	System	Installed Equipment or Retrofit? {13}	Source of Assistance (check all that apply)					
			In-house {15}	Utility/ Energy Supplier {16}	Product or Service Provider {17}	Federal Program {18}	State or Local Program {19}	Don't Know {32}
12.	**Steam production/system** (e.g., boilers, burners, insulation, piping)	1☐Yes▶ 2☐ No {120}	3☐	4☐	7☐	8☐	9☐	6☐
13.	**Compressed air systems** (e.g., compressors, sizing, leak reduction)	1☐Yes▶ 2☐ No {450}	3☐	4☐	7☐	8☐	9☐	6☐
14.	**Direct/indirect process heating**	1☐Yes▶ 2☐ No {140}	3☐	4☐	7☐	8☐	9☐	6☐
15.	**Direct process cooling, refrigeration**	1☐Yes▶ 2☐ No {160}	3☐	4☐	7☐	8☐	9☐	6☐
16.	**Direct machine drive** (e.g., adjustable-speed drives, motors, pumps, fans)	1☐Yes▶ 2☐ No {180}	3☐	4☐	7☐	8☐	9☐	6☐
17.	**Facility heating, ventilation, and air conditioning**	1☐Yes▶ 2☐ No {200}	3☐	4☐	7☐	8☐	9☐	6☐
18.	**Facility lighting**	1☐Yes▶ 2☐ No {220}	3☐	4☐	7☐	8☐	9☐	6☐

Energy Technologies			
1.	**Were any of the following technologies in use at your establishment anytime during 2006?**		
a.	**Computer control of building-wide environment (e.g., space-heating equipment, cooling equipment, lights).**	14010	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**
b.	**Computer control of processes or major energy-using equipment (e.g., boilers, furnaces, conveyors used in the manufacturing process).**	14020	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**
c.	**Waste heat recovery.**	14030	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**
d.	**Adjustable-speed motors.**	14040	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**
e.	**Oxy-fuel firing.**	14950	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**
2.	**Were any of the following technologies associated with cogeneration in use at your establishment anytime during 2006?**		
a.	**Steam turbines supplied by either conventional or fluidized bed boilers.**	14042	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**
b.	**Conventional combustion turbines with heat recovery.**	14043	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**
c.	**Combined-cycle combustion turbines**	14044	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**
d.	**Internal combustion engines with heat recovery.**	14045	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**

e.	**Steam turbines supplied by heat recovered from high-temperatures processes.**	14046	❑ 1 **Yes** ❑ 2 **No** ❑ 3 **Don't Know**

Establishment Size and Remarks

Establishment Size

1.	**How many buildings were on this establishment site as of December 31, 2006?** **Buildings include:** structures enclosed by walls extending from the foundation to the roof, parking garages, even if not totally enclosed by walls and a roof, or structures erected on pillars to elevate the first fully enclosed level. **Excluded buildings are:** structures (other than the exceptions noted above) that are not totally enclosed by walls and a roof, mobile homes and trailers, even if they house manufacturing activity, structures not ordinarily intended to be entered by humans, such as storage tanks, or non-buildings that consume energy (such as pumps and constructions sites).	"Census Use Only" 17010	**Number of Buildings**
		17020	❑ 1 **Don't Know.**
2.	**What was the approximate total enclosed square footage of the buildings located on this establishment site as of December 31, 2006?**	13010	**Total square feet**
		13011	❑ 1 **Don't Know.**

Remarks

3. **Please use this space for any explanations that may be essential in understanding your reported data. If additional space is needed, attach a separate sheet, including the 10-digit Survey ID located on the mailing label on the front of this questionnaire.**

15990	
15991	
15992	
15993	
15994	
15995	
15996	
15997	
15998	
15999	
16000	