

Section 11: Estimated End-Use Percent Consumption for Electricity, Natural Gas, and Coal

131. Enter the percent of total consumption for each end use performed in this establishment. Please answer questions 132 through 147 below for each energy source. Enter a zero if the end use is not performed for the specific energy source.

Reasonable approximations are acceptable. These approximations should be based on the judgment of a person knowledgeable about the energy consumption and operation of your establishment. They are not expected to be the result of modeling activity or formal engineering studies unless these results are routinely available.

Complete one column (energy source) for all end uses, before starting the next energy source.

The sum of all the estimated end-use percentages should total 100 percent for each column (energy source).

	10 <i>column 1</i>	30 <i>column 2</i>	46 <i>column 3</i>	
Census use only	Electricity	Natural Gas	Coal excluding Coal Coke and Breeze	
	-	-	-	
132 Was this energy source consumed as a fuel in this establishment during 1998?	001	1 9 Yes° Go to question 133 2 9 No° Go to next column	1 9 Yes° Go to question 133 2 9 No° Go to next column	1 9 Yes° Go to question 133 2 9 No° Go to Section 12, page 37

133 < Copy total energy source consumption for fuel uses from appropriate sections of the questionnaire, as indicated in each column.		Copied quantity from question 22, page 9.	Copied quantity from question 35, page 12.	Copied quantity from question 99, page 24.
For questions 134 through 145, provide the approximate percentage of this total amount that is used for each of the end uses.	700	<input style="width: 100%; height: 20px;" type="text"/> Kilowatthours	<input style="width: 100%; height: 20px;" type="text"/> 1,000 cubic ft.	<input style="width: 100%; height: 20px;" type="text"/> Short tons

Question 134:

Indirect Uses - Boilers: Indirect use is the transformation of energy to another usable energy source, as in a boiler.

134 Boiler fuel (e.g., fuel for boilers, gas turbines)	710	<input style="width: 100%; height: 20px;" type="text"/> %	<input style="width: 100%; height: 20px;" type="text"/> %	<input style="width: 100%; height: 20px;" type="text"/> %
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Section 11: Estimated End-Use Percent Consumption for Electricity, Natural Gas, and Coal, cont.

10 <i>column 1</i> Electricity	30 <i>column 2</i> Natural Gas	46 <i>column 3</i> Coal
-	-	-

Questions 135 through 139:

Direct Uses - Process: Direct process use includes usage in motors, ovens, kilns, and strip heaters.

Census
use only

135.	Process heating (e.g., kilns, furnaces, ovens, strip heaters)	720	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>
136.	Process cooling and refrigeration	730	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>
137.	Machine drive (e.g., motors, pumps, etc. associated with manufacturing process equipment)	740	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>
138.	Electro-chemical processes (e.g., reduction process)	750	<input style="border: 1px solid black;" type="text" value="%"/>		
139.	Other direct process use Please specify: 10761 <input style="width: 300px; height: 20px; border: 1px solid black;" type="text"/>	760	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>

Questions 140 through 145:

Direct Uses - Nonprocess: Direct nonprocess use includes usage for facility lighting and space-conditioning equipment.

140.	Facility heating, ventilation, and air conditioning	770	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>
141.	Facility lighting	780	<input style="border: 1px solid black;" type="text" value="%"/>		

Continue to next page

Section 11: Estimated End-Use Percent Consumption for Electricity, Natural Gas, and Coal, cont.

	Census use only	10 <i>column 1</i> Electricity -	30 <i>column 2</i> Natural Gas -	46 <i>column 3</i> Coal -
142. Facility support other than that reported in questions 140 and 141. (e.g., cooking, water heating, office equipment)	790	<input style="width: 100%;" type="text" value=" %"/>	<input style="width: 100%;" type="text" value=" %"/>	<input style="width: 100%;" type="text" value=" %"/>
143. Onsite transportation, excluding highway usage	800	<input style="width: 100%;" type="text" value=" %"/>	<input style="width: 100%;" type="text" value=" %"/>	
144. Conventional electricity generation	810		<input style="width: 100%;" type="text" value=" %"/>	<input style="width: 100%;" type="text" value=" %"/>
145. Other direct nonprocess use Please specify: 10821 <input style="width: 300px; height: 20px;" type="text"/>	820	<input style="width: 100%;" type="text" value=" %"/>	<input style="width: 100%;" type="text" value=" %"/>	<input style="width: 100%;" type="text" value=" %"/>
146. Total for all purposes The sum of the end-use percents reported in questions 134 through 145 should equal 100 percent.		Total <input style="width: 100%;" type="text" value=" 100 %"/> Go to question 132, next column	Total <input style="width: 100%;" type="text" value=" 100 %"/> Go to question 132, next column	Total <input style="width: 100%;" type="text" value=" 100 %"/> Go to question 148, next page
147. < Answer questions 132 through 146 for all energy sources (columns). < Then go to question 148, Section 12, next page.				

Section 12: Estimated End-Use Percent Consumption for LPG & NGL, Diesel Fuel & Distillate Fuel Oil, and Residual Fuel Oil

148. Enter the percent of total consumption for each end use performed in this establishment.

Please answer questions 149 through 161 below for each energy source (column). Enter a zero if the end use is not performed for the specific energy source.

Reasonable approximations are acceptable. These approximations should be based on the judgment of a person knowledgeable about the energy consumption and operation of your establishment. They are not expected to be the result of modeling activity or formal engineering studies unless these results are routinely available.

Complete one energy source (column) for all end uses, before starting the next energy source (column).

The sum of all the estimated end-use percentages should total 100 percent for each energy source (column).

	24 <i>column 1</i>	22 <i>column 2</i>	21 <i>column 3</i>	
	Total Liquefied Petroleum Gases (LPG) and Natural Gas Liquids (NGL)	Total Diesel Fuel and Distillate Fuel Oil	Residual Fuel Oil	
<p>149. Was this energy source consumed as a fuel in this establishment during 1998?</p>	<p>Census use only</p> <p>001</p>	<p>–</p>	<p>–</p>	
	<div style="border: 1px solid black; padding: 5px; width: 100%;"> <p>1 9 Yes ° Go to question 150</p> <p>2 9 No ° Go to next column</p> </div>	<div style="border: 1px solid black; padding: 5px; width: 100%;"> <p>1 9 Yes ° Go to question 150</p> <p>2 9 No ° Go to next column</p> </div>	<div style="border: 1px solid black; padding: 5px; width: 100%;"> <p>1 9 Yes ° Go to question 150</p> <p>2 9 No ° Go to Section 13, page 40</p> </div>	
<p>150. Copy total energy source consumption as a fuel from appropriate sections of the questionnaire, as indicated in each column.</p> <p>For questions 151 through 160, provide the approximate percentage of this total amount that is used for each of the end uses.</p>	<p>700</p>	<p>Copied quantity from question 53, page 16 OR question 74, column 1, page 20</p> <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div> <p>Gallons</p>	<p>Copied quantity from question 56, page 16 OR question 80, column 1, page 21</p> <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div> <p>Barrels</p>	<p>Copied quantity from question 59, page 17 OR question 81, column 1, page 22</p> <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div> <p>Barrels</p>

Continue to next page

Section 12: Estimated End-Use Percent Consumption for LPG & NGL, Diesel Fuel & Distillate Fuel Oil, and Residual Fuel Oil, cont.

	Census use only	24 <i>column 1</i>	22 <i>column 2</i>	21 <i>column 3</i>
		Total LPG and NGL	Diesel Fuel and Distillate Fuel Oil	Residual Fuel Oil
		-	-	-
Question 151:				
Indirect Uses - Boilers: Indirect use is the transformation of energy to another usable energy source, as in a boiler.				
151. Boiler fuel (e.g., fuel for boilers, gas turbines)	710	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %
Questions 152 through 155:				
Direct Uses - Process: Direct process use includes usage in motors, ovens, kilns, and strip heaters.				
152. Process heating (e.g., kilns, furnaces, ovens, strip heaters)	720	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %
153. Process cooling and refrigeration	730	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %
154. Machine drive (e.g., motors, pumps, etc. associated with manufacturing process equipment)	740	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %
155. Other direct process use Please specify: 10762 <input style="width: 300px; height: 20px; border: 1px solid black;" type="text"/>	760	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %	<input style="width: 100px; height: 20px;" type="text"/> %

Continue to next page

Section 12: Estimated End-Use Percent Consumption for LPG & NGL, Diesel Fuel & Distillate Fuel Oil, and Residual Fuel Oil, cont.

		24 <i>column 1</i>	22 <i>column 2</i>	21 <i>column 3</i>
		Total LPG and NGL	Diesel Fuel and Distillate Fuel Oil	Residual Fuel Oil
Census use only		-	-	-
Questions 156 through 160:				
Direct Uses - Nonprocess: Direct nonprocess use includes usage for facility lighting and space-conditioning equipment.				
156.	Facility heating, ventilation, and air conditioning	770	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>
157.	Facility support other than that reported in question 156. (e.g., cooking, water heating, office equipment)	790	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>
158.	Onsite transportation, excluding highway usage	800	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>
159.	Conventional electricity generation	810	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>
160.	Other direct nonprocess use Please specify: 10822	820	<input style="border: 1px solid black;" type="text" value="%"/>	<input style="border: 1px solid black;" type="text" value="%"/>
161.	Total for all purposes The sum of the end-use percents reported in questions 151 through 160 should equal 100 percent.		Total <input style="border: 1px solid black;" type="text" value="100 %"/> Go to question 149, next column	Total <input style="border: 1px solid black;" type="text" value="100 %"/> Go to question 149, next column
			Total <input style="border: 1px solid black;" type="text" value="100 %"/> Go to question 163, next page	
162.	< Answer questions 149 through 161 for all energy sources (columns). < Then go to question 163, Section 13, next page.			

Section 13: Energy-Management Activities

163. For each of the following energy-management activities, indicate with a “yes” or a “no” under the “Participate?” column whether your establishment participated in or undertook the specified activity between January 1, 1998 and December 31, 1998.

For any activity for which you marked “yes” and if it has an arrow, please mark the category that describes the amount of the energy-management activity cost that was paid for by your establishment or company.

	Energy-Management Activities	Cen- sus use only	Participate? 13	Amount of Cost Paid by this Establishment or Company			
164.	Energy audits	060	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
165.	Electricity load control	080	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
166.	Power factor correction or improvement	380	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
167.	Equipment installation or retrofit for the <u>primary purpose of using a different energy source</u> (e.g., electrification) Exclude modifications made principally for energy efficiency; those should be included in questions 169 through 175	240	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
168.	Standby generation program	260	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
<p>For questions 169 through 175: Equipment installation or retrofit for the <u>primary purpose of improving energy efficiency</u> affecting:</p>							
169.	Steam production/system (e.g., boilers, burners, insulation, piping)	120	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
170.	Compressed air systems (e.g., compressors, sizing, leak reduction)	450	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
171.	Direct/indirect process heating	140	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
172.	Direct process cooling, refrigeration	160	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know

Continue to next page

Section 13: Energy-Management Activities, cont.

	Energy-Management Activities	Cen- sus use only	Participate? 13	Amount of Cost Paid by this Establishment or Company			
173.	Direct machine drive (e.g., adjustable-speed drives, motors, pumps) excluding Motor Challenge Program	180	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
174.	Facility heating, ventilation, and air conditioning, excluding Energy Star Program	200	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
175.	Facility lighting, excluding Green Lights Program	220	1 <input type="checkbox"/> Yes ° 2 <input type="checkbox"/> No	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
<p>For questions 176 through 180: Indicate only whether the establishment participated in the energy-management activity during 1998.</p>							
176.	Special rate schedule (e.g., interruptible or time-of-use)	100	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
177.	Equipment rebates	280	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
178.	U.S. Environmental Protection Agency's Energy Star Program	420	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
179.	U.S. Environmental Protection Agency's Green Lights Program	430	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
180.	U.S. Department of Energy's Motor Challenge Program	440	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
<p>For questions 181 and 182: Indicate any other energy-management activities not specified above, including other government programs.</p>							
181.	Specify: 13960 <div style="border: 1px solid black; height: 20px; width: 350px; margin-top: 5px;"></div>	300	1 <input type="checkbox"/> Yes °	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
182.	Specify: 13970 <div style="border: 1px solid black; height: 20px; width: 350px; margin-top: 5px;"></div>	340	1 <input type="checkbox"/> Yes °	3 <input type="checkbox"/> None	4 <input type="checkbox"/> Some	5 <input type="checkbox"/> All	6 <input type="checkbox"/> Don't Know
183.	Does this establishment have a full-time 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).	460	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				

Go to question 184, Section 14, next page.

Section 14: Technologies

184. Were any of the following technologies in use at your establishment anytime during 1998?

	Census use only	Yes	No	Don't Know
a. Computer control of building-wide environment (e.g., space-heating equipment, cooling equipment, lights)	14010 a.	<input type="checkbox"/> 19 Yes	<input type="checkbox"/> 29 No	<input type="checkbox"/> 39 DK
b. Computer control of processes or major energy-using equipment (e.g., boilers, furnaces, conveyors used in the manufacturing process)	14020 b.	<input type="checkbox"/> 19 Yes	<input type="checkbox"/> 29 No	<input type="checkbox"/> 39 DK
c. Waste heat recovery	14030 c.	<input type="checkbox"/> 19 Yes	<input type="checkbox"/> 29 No	<input type="checkbox"/> 39 DK
d. Adjustable-speed motors	14040 d.	<input type="checkbox"/> 19 Yes	<input type="checkbox"/> 29 No	<input type="checkbox"/> 39 DK

185. Were any of the following technologies associated with cogeneration in use at your establishment anytime during 1998?

		Yes	No	Don't Know
a. Steam turbines supplied by either conventional or fluidized bed boilers	14042 a.	<input type="checkbox"/> 19 Yes	<input type="checkbox"/> 29 No	<input type="checkbox"/> 39 DK
b. Conventional combustion turbines with heat recovery	14043 b.	<input type="checkbox"/> 19 Yes	<input type="checkbox"/> 29 No	<input type="checkbox"/> 39 DK
c. Combined-cycle combustion turbines	14044 c.	<input type="checkbox"/> 19 Yes	<input type="checkbox"/> 29 No	<input type="checkbox"/> 39 DK
d. Internal combustion engines with heat recovery	14045 d.	<input type="checkbox"/> 19 Yes	<input type="checkbox"/> 29 No	<input type="checkbox"/> 39 DK
e. Steam turbines supplied by heat recovered from high-temperature processes	14046 e.	<input type="checkbox"/> 19 Yes	<input type="checkbox"/> 29 No	<input type="checkbox"/> 39 DK

Go to question 186, Section 15, next page

Section 15: Establishment Size

186. How many buildings were on this establishment site as of December 31, 1998?

Census
use only
17010

Number of Buildings

Buildings include:

- 1) structures enclosed by walls extending from the foundation to the roof,
- 2) parking garages, even if not totally enclosed by walls and a roof, or
- 3) structures erected on pillars to elevate the first fully enclosed level.

17020

Excluded as buildings are:

- 1) structures (other than the exceptions noted above) that are not totally enclosed by walls and a roof,
- 2) mobile homes and trailers, even if they house manufacturing activity,
- 3) structures not ordinarily intended to be entered by humans, such as storage tanks, or
- 4) nonbuildings that consume energy (such as pumps and construction sites).

187. What was the approximate total enclosed square footage of the buildings located on this establishment site as of December 31, 1998?

13010

Total Square Feet

Include in this estimate all the area enclosed by the exterior walls of a building, such as indoor parking facilities, basements, hallways, lobbies, stairways, and elevator shafts.

13011

Section 16: Remarks

188. 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 11-digit Census File Number (CFN) located on the mailing label on the front of this questionnaire.

15990	
15991	
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15993	
15994	
15995	

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Section 17: Contact Information

189. Name of person to contact regarding this questionnaire *(Please print or type)* Date

190. Title of contact person above *(Please print or type)*

191. Telephone: Area Code Number Extension

192. Address--Number and Street

193. City State ZIP Code (9 digits)

194. Internet or E-mail address, if available *(Please print or type)*

19010

Thank you for completing this questionnaire!

Please photocopy this questionnaire for your records.

**Return this questionnaire in the return envelope provided.
If the envelope has been misplaced, return the completed questionnaire to:**

**Bureau of the Census
1201 East 10th Street
Jeffersonville, IN 47132-0001**