

Section 14: Estimated End-Use Percent Consumption for Electricity, Natural Gas, and Coal

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

Please answer questions 133 through 147 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).

	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
	-	-	-

133. Was this energy source consumed as a fuel in this establishment during 1998?

001

1 **9** Yes ° Go to question 134
2 **9** No ° Go to next column

1 **9** Yes ° Go to question 134
2 **9** No ° Go to next column

1 **9** Yes ° Go to question 134
2 **9** No ° Go to Section 15, page 36

134. < Copy total energy source consumption for fuel uses from appropriate sections of the questionnaire, as indicated in each column.

700

Copied quantity from question 22, page 9.

Copied quantity from question 35, page 12.

Copied quantity from question 92, page 24.

Kilowatthours

1,000 cubic ft.

Short tons

For questions 135 through 146, provide the approximate percentage of this total amount that is used for each of the end uses.

Question 135:

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

135. Boiler fuel (e.g., fuel for boilers, gas turbines)

710

 %

 %

 %

Continue to next page

Section 14: 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 -
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Questions 136 through 140:

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

Census
use only

136.	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="%"/>
137.	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="%"/>
138.	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="%"/>
139.	Electro-chemical processes (e.g., reduction process)	750	<input style="border: 1px solid black;" type="text" value="%"/>		
140.	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 141 through 146:

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

141.	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="%"/>
142.	Facility lighting	780	<input style="border: 1px solid black;" type="text" value="%"/>		

Continue to next page

Section 14: 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 -
143. Facility support other than that reported in questions 141 and 142. (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=" %"/>
144. Onsite transportation, excluding highway usage	800	<input style="width: 100%;" type="text" value=" %"/>	<input style="width: 100%;" type="text" value=" %"/>	
145. Conventional electricity generation	810		<input style="width: 100%;" type="text" value=" %"/>	<input style="width: 100%;" type="text" value=" %"/>
146. 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=" %"/>
147. Total for all purposes The sum of the end-use percents reported in questions 135 through 146 should equal 100 percent.		Total <input style="width: 100%;" type="text" value=" 100 %"/> Go to question 133, next column	Total <input style="width: 100%;" type="text" value=" 100 %"/> Go to question 133, next column	Total <input style="width: 100%;" type="text" value=" 100 %"/> Go to question 149, next page
148. < Answer questions 133 through 147 for all energy sources (columns). < Then go to question 149, Section 15, next page.				

Section 15: Estimated End-Use Percent Consumption for LPG, Diesel Fuel & Distillate Fuel Oil, and Residual Fuel Oil

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

Please answer questions 150 through 162 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>
	Liquefied Petroleum Gas (LPG)	Total Diesel Fuel and Distillate Fuel Oil	Residual Fuel Oil
Census use only	-	-	-
150. Was this energy source consumed as a fuel in this establishment during 1998?	001	001	001
	1 9 Yes ° Go to question 151 2 9 No ° Go to next column	1 9 Yes ° Go to question 151 2 9 No ° Go to next column	1 9 Yes ° Go to question 151 2 9 No ° Go to Section 16, page 39
151. Copy total energy source consumption as a fuel from appropriate sections of the questionnaire, as indicated in each column. For questions 152 through 161, provide the approximate percentage of this total amount that is used for each of the end uses.	700	700	700
	Copied quantity from question 52, column 1, page 16 <input style="width: 100px; height: 20px;" type="text"/> Gallons	Copied quantity from question 74, page 20 <input style="width: 100px; height: 20px;" type="text"/> Barrels	Copied quantity from question 70, column 3, page 20 <input style="width: 100px; height: 20px;" type="text"/> Barrels
Question 152:	Indirect Uses - Boilers: Indirect use is the transformation of energy to another usable energy source, as in a boiler.		
152. Boiler fuel (e.g., fuel for boilers, gas turbines)	710	710	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"/> %

Continue to next page

Section 15: Estimated End-Use Percent Consumption for LPG, Diesel Fuel & Distillate Fuel Oil, and Residual Fuel Oil, cont.

	Census use only	24 <i>column 1</i> LPG —	22 <i>column 2</i> Diesel Fuel and Distillate Fuel Oil —	21 <i>column 3</i> Residual Fuel Oil —
Questions 153 through 156:				
Direct Uses - Process: Direct process use includes usage in motors, ovens, kilns, and strip heaters.				
153. Process heating (e.g., kilns, furnaces, ovens, strip heaters)	720	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>
154. Process cooling and refrigeration	730	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>
155. Machine drive (e.g., motors, pumps, etc. associated with manufacturing process equipment)	740	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>
156. Other direct process use Please specify: 10762	760	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>
Questions 157 through 161:				
Direct Uses - Nonprocess: Direct nonprocess use includes usage for facility lighting and space-conditioning equipment.				
157. Facility heating, ventilation, and air conditioning	770	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>
158. Facility support other than that reported in question 157. (e.g., cooking, water heating, office equipment)	790	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>
159. Onsite transportation, excluding highway usage	800	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text" value="%"/>	

Continue to next page

**Section 15: Estimated End-Use Percent Consumption for
LPG, 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>	
		LPG	Diesel Fuel and Distillate Fuel Oil	Residual Fuel Oil	
		-	-	-	
	Census use only				
160.	Conventional electricity generation	810	<input type="text" value=" %"/>	<input type="text" value=" %"/>	<input type="text" value=" %"/>
161.	Other direct nonprocess use Please specify: 10822 <input type="text"/>	820	<input type="text" value=" %"/>	<input type="text" value=" %"/>	<input type="text" value=" %"/>
162.	Total for all purposes The sum of the end-use percents reported in questions 152 through 161 should equal 100 percent.	<input type="text" value=" 100 %"/>	<input type="text" value=" 100 %"/>	<input type="text" value=" 100 %"/>	
		Go to question 150, next column	Go to question 150, next column	Go to question 164, next page	
163.	< Answer questions 150 through 162 for all energy sources (columns). < Then go to question 164, Section 16, next page.				

Section 16: Energy-Management Activities

164. 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			
			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.	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	
166.	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	
167.	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	
168.	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 170 through 176	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	
169.	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	
For questions 170 through 176: Equipment installation or retrofit for the <u>primary purpose of improving energy efficiency</u> affecting:								
170.	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	
171.	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	
172.	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	
173.	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 16: Energy-Management Activities, cont.

	Energy-Management Activities	Cen- sus use only	Participate? 13	Amount of Cost Paid by this Establishment or Company			
174.	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
175.	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
176.	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
For questions 177 through 181: Indicate only whether the establishment participated in the energy-management activity during 1998.							
177.	Special rate schedule (e.g., interruptible or time-of-use)	100	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
178.	Equipment rebates	280	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
179.	U.S. Environmental Protection Agency's Energy Star Program	420	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
180.	U.S. Environmental Protection Agency's Green Lights Program	430	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
181.	U.S. Department of Energy's Motor Challenge Program	440	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No				
For questions 182 and 183: Indicate any other energy-management activities not specified above, including other government programs.							
182.	Specify: 13960 <div style="border: 1px solid black; height: 20px; width: 100%; 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
183.	Specify: 13970 <div style="border: 1px solid black; height: 20px; width: 100%; 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
184.	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 185, Section 17, next page