

Released: August 2025

Next MECS will be fielded in 2027

**Table 5.3 End uses of fuel consumption, 2022**

Level: National data

Row: End uses within NAICS codes

Column: Energy sources, including net demand for electricity

Unit: Physical units or British thermal units (Btu)

NAICS code <sup>a</sup>	End use	Net demand for electricity <sup>b</sup> (million kilowatthours)	Residual fuel oil (million barrels)	Distillate fuel oil and diesel fuel <sup>c</sup> (million barrels)	Natural gas <sup>d</sup> (billion cubic feet)	HGL (excluding natural gasoline) <sup>e</sup> (million barrels)	Coal (excluding coal coke and breeze) (million short tons)
Total United States							
<b>311 - 339</b>	<b>All manufacturing industries</b>						
	<b>Total fuel consumption</b>	932,709	2	14	6,827	24	19
	<b>Indirect Uses—Boiler Fuel</b>	17,371	1	2	2,883	4	5
	Conventional Boiler Use	17,371	*	*	837	2	1
	CHP and/or Cogeneration Process	--	1	2	2,046	2	4
	<b>Direct Uses—Total Process</b>	724,528	*	4	3,383	13	11
	Process Heating	77,623	*	1	2,838	11	10
	Process Cooling and Refrigeration	73,274	*	*	42	*	*
	Machine Drive	484,175	*	2	241	1	*
	Electro-Chemical Processes	62,274	--	--	--	--	--
	Other Process Use	27,182	*	2	263	1	1
	<b>Direct Uses—Total Nonprocess</b>	171,118	*	7	524	7	*
	Facility HVAC <sup>f</sup>	87,333	*	*	397	1	*
	Facility Lighting	53,882	--	--	--	--	--
	Other Facility Support	17,242	*	*	54	*	*
	Onsite Transportation	6,870	--	5	7	5	--
	Conventional Electricity Generation	--	*	*	41	*	*
	Other Nonprocess Use	5,790	*	1	25	*	*
	<b>End use not reported</b>	19,692	*	1	36	*	4
<b>311</b>	<b>Food</b>						
	<b>Total fuel consumption</b>	86,835	*	3	679	2	4
	<b>Indirect Uses—Boiler Fuel</b>	3,278	*	1	379	1	2
	Conventional Boiler Use	3,278	*	*	130	Q	*
	CHP and/or Cogeneration Process	--	*	1	249	*	2
	<b>Direct Uses—Total Process</b>	66,847	*	*	215	1	*
	Process Heating	3,981	*	*	166	Q	*

	Process Cooling and Refrigeration	22,335	*	*	13	*	0
	Machine Drive	38,630	*	*	21	*	*
	Electro-Chemical Processes	389	--	--	--	--	--
	Other Process Use	1,512	0	*	15	*	0
	<b>Direct Uses—Total Nonprocess</b>	<b>15,163</b>	<b>*</b>	<b>1</b>	<b>71</b>	<b>*</b>	<b>0</b>
	Facility HVAC	7,132	*	*	49	*	0
	Facility Lighting	4,880	--	--	--	--	--
	Other Facility Support	1,971	0	*	18	*	0
	Onsite Transportation	846	--	1	1	*	--
	Conventional Electricity Generation	--	0	*	1	*	0
	Other Nonprocess Use	335	0	*	2	*	0
	<b>End use not reported</b>	<b>1,546</b>	<b>0</b>	<b>*</b>	<b>13</b>	<b>*</b>	<b>2</b>
<b>3112</b>	<b>Grain and oilseed milling</b>						
	<b>Total fuel consumption</b>	<b>21,820</b>	<b>*</b>	<b>*</b>	<b>164</b>	<b>*</b>	<b>3</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>650</b>	<b>*</b>	<b>*</b>	<b>117</b>	<b>*</b>	<b>1</b>
	Conventional Boiler Use	650	*	*	60	0	*
	CHP and/or Cogeneration Process	--	0	0	57	*	1
	<b>Direct Uses—Total Process</b>	<b>19,331</b>	<b>*</b>	<b>*</b>	<b>42</b>	<b>*</b>	<b>0</b>
	Process Heating	1,184	*	*	39	*	0
	Process Cooling and Refrigeration	2,087	0	0	*	0	0
	Machine Drive	15,696	0	*	2	*	0
	Electro-Chemical Processes	158	--	--	--	--	--
	Other Process Use	206	0	0	1	*	0
	<b>Direct Uses—Total Nonprocess</b>	<b>1,805</b>	<b>*</b>	<b>*</b>	<b>4</b>	<b>*</b>	<b>0</b>
	Facility HVAC	784	*	*	3	*	0
	Facility Lighting	705	--	--	--	--	--
	Other Facility Support	231	0	*	1	*	0
	Onsite Transportation	70	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	*	0
	Other Nonprocess Use	15	0	*	0	*	0
	<b>End use not reported</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>*</b>	<b>2</b>
<b>311221</b>	<b>Wet corn milling and starch manufacturing</b>						
	<b>Total fuel consumption</b>	<b>9,708</b>	<b>0</b>	<b>*</b>	<b>67</b>	<b>*</b>	<b>2</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>156</b>	<b>0</b>	<b>0</b>	<b>47</b>	<b>0</b>	<b>*</b>
	Conventional Boiler Use	156	0	0	15	0	0
	CHP and/or Cogeneration Process	--	0	0	32	0	*
	<b>Direct Uses—Total Process</b>	<b>9,019</b>	<b>0</b>	<b>*</b>	<b>19</b>	<b>*</b>	<b>0</b>
	Process Heating	566	0	*	19	*	0
	Process Cooling and Refrigeration	1,681	0	0	*	0	0
	Machine Drive	6,626	0	*	0	*	0
	Electro-Chemical Processes	145	--	--	--	--	--

	Other Process Use	0	0	0	*	0	0
	<b>Direct Uses—Total Nonprocess</b>	534	0	*	1	*	0
	Facility HVAC	187	0	*	*	*	0
	Facility Lighting	305	--	--	--	--	--
	Other Facility Support	37	0	*	*	*	0
	Onsite Transportation	5	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	0	0	0
	Other Nonprocess Use	0	0	*	0	*	0
	<b>End use not reported</b>	0	0	0	0	0	2

<b>31131</b>	<b>Sugar manufacturing</b>
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	<b>Total fuel consumption</b>	3,221	*	*	38	*	1
	<b>Indirect Uses—Boiler Fuel</b>	352	*	*	24	0	1
	Conventional Boiler Use	352	*	0	4	0	*
	CHP and/or Cogeneration Process	--	0	*	20	0	1
	<b>Direct Uses—Total Process</b>	2,343	0	*	13	*	*
	Process Heating	293	0	0	12	0	*
	Process Cooling and Refrigeration	171	0	0	0	0	0
	Machine Drive	1,792	0	*	1	*	*
	Electro-Chemical Processes	82	--	--	--	--	--
	Other Process Use	6	0	*	0	0	0
	<b>Direct Uses—Total Nonprocess</b>	526	0	*	1	*	0
	Facility HVAC	188	0	0	*	*	0
	Facility Lighting	170	--	--	--	--	--
	Other Facility Support	102	0	0	*	0	0
	Onsite Transportation	56	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	*	0
	Other Nonprocess Use	11	0	0	0	*	0
	<b>End use not reported</b>	0	0	0	0	0	0

<b>3114</b>	<b>Fruit and vegetable preserving and specialty foods</b>
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	<b>Total fuel consumption</b>	9,644	*	*	85	*	0
	<b>Indirect Uses—Boiler Fuel</b>	460	0	*	56	*	0
	Conventional Boiler Use	460	0	*	16	*	0
	CHP and/or Cogeneration Process	--	0	*	40	*	0
	<b>Direct Uses—Total Process</b>	6,973	*	*	18	*	0
	Process Heating	449	*	0	15	*	0
	Process Cooling and Refrigeration	3,614	0	*	0	*	0
	Machine Drive	2,795	0	*	1	*	0
	Electro-Chemical Processes	19	--	--	--	--	--
	Other Process Use	97	0	*	1	*	0
	<b>Direct Uses—Total Nonprocess</b>	2,106	*	*	10	*	0
	Facility HVAC	934	*	*	8	*	0

	Facility Lighting	685	--	--	--	--	--
	Other Facility Support	236	0	*	1	*	0
	Onsite Transportation	123	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	0	0
	Other Nonprocess Use	128	0	*	1	*	0
	<b>End use not reported</b>	<b>104</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
<b>3115</b>	<b>Dairy product manufacturing</b>						
	<b>Total fuel consumption</b>	<b>13,396</b>	<b>*</b>	<b>*</b>	<b>114</b>	<b>Q</b>	<b>0</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>502</b>	<b>*</b>	<b>*</b>	<b>74</b>	<b>*</b>	<b>0</b>
	Conventional Boiler Use	502	0	*	23	*	0
	CHP and/or Cogeneration Process	--	*	*	51	*	0
	<b>Direct Uses—Total Process</b>	<b>9,843</b>	<b>*</b>	<b>*</b>	<b>30</b>	<b>*</b>	<b>0</b>
	Process Heating	577	0	*	20	*	0
	Process Cooling and Refrigeration	3,870	*	*	3	0	0
	Machine Drive	5,005	*	*	4	*	0
	Electro-Chemical Processes	60	--	--	--	--	--
	Other Process Use	331	0	*	3	*	0
	<b>Direct Uses—Total Nonprocess</b>	<b>2,773</b>	<b>*</b>	<b>*</b>	<b>8</b>	<b>*</b>	<b>0</b>
	Facility HVAC <sup>†</sup>	1,255	*	*	7	*	0
	Facility Lighting	912	--	--	--	--	--
	Other Facility Support	325	0	0	1	*	0
	Onsite Transportation	220	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	0	0
	Other Nonprocess Use	61	0	*	*	*	0
	<b>End use not reported</b>	<b>278</b>	<b>0</b>	<b>0</b>	<b>Q</b>	<b>*</b>	<b>0</b>
<b>3116</b>	<b>Animal slaughtering and processing</b>						
	<b>Total fuel consumption</b>	<b>22,338</b>	<b>*</b>	<b>1</b>	<b>157</b>	<b>*</b>	<b>0</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>741</b>	<b>*</b>	<b>*</b>	<b>77</b>	<b>*</b>	<b>0</b>
	Conventional Boiler Use	741	0	*	20	*	0
	CHP and/or Cogeneration Process	--	*	*	56	*	0
	<b>Direct Uses—Total Process</b>	<b>16,882</b>	<b>0</b>	<b>*</b>	<b>43</b>	<b>*</b>	<b>0</b>
	Process Heating	705	0	*	34	*	0
	Process Cooling and Refrigeration	9,009	0	*	2	*	0
	Machine Drive	7,001	0	*	4	*	0
	Electro-Chemical Processes	46	--	--	--	--	--
	Other Process Use	121	0	*	2	*	0
	<b>Direct Uses—Total Nonprocess</b>	<b>3,830</b>	<b>0</b>	<b>*</b>	<b>27</b>	<b>*</b>	<b>0</b>
	Facility HVAC <sup>†</sup>	1,725	0	0	16	*	0
	Facility Lighting	1,284	--	--	--	--	--
	Other Facility Support	569	0	*	11	*	0
	Onsite Transportation	238	--	*	*	*	--

Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	14	0	*	*	*	0
<b>End use not reported</b>	<b>885</b>	<b>0</b>	<b>*</b>	<b>10</b>	<b>*</b>	<b>0</b>

### 312 Beverage and tobacco products

<b>Total fuel consumption</b>	<b>15,044</b>	<b>0</b>	<b>*</b>	<b>204</b>	<b>*</b>	<b>*</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>387</b>	<b>0</b>	<b>*</b>	<b>Q</b>	<b>*</b>	<b>*</b>
Conventional Boiler Use	387	0	*	15	*	0
CHP and/or Cogeneration Process	--	0	*	Q	*	*
<b>Direct Uses—Total Process</b>	<b>11,435</b>	<b>0</b>	<b>*</b>	<b>49</b>	<b>*</b>	<b>0</b>
Process Heating	727	0	--	45	--	0
Process Cooling and Refrigeration	3,541	0	*	1	*	0
Machine Drive	6,870	0	*	2	*	0
Electro-Chemical Processes	41	--	--	--	--	--
Other Process Use	255	0	*	*	--	0
<b>Direct Uses—Total Nonprocess</b>	<b>3,155</b>	<b>0</b>	<b>*</b>	<b>22</b>	<b>*</b>	<b>0</b>
Facility HVAC <sup>†</sup>	1,606	0	*	Q	*	0
Facility Lighting	864	--	--	--	--	--
Other Facility Support	323	0	*	1	*	0
Onsite Transportation	229	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	132	0	*	1	*	0
<b>End use not reported</b>	<b>Q</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>

### 3121 Beverages

<b>Total fuel consumption</b>	<b>14,295</b>	<b>0</b>	<b>*</b>	<b>Q</b>	<b>*</b>	<b>*</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>375</b>	<b>0</b>	<b>*</b>	<b>Q</b>	<b>*</b>	<b>*</b>
Conventional Boiler Use	375	0	*	13	*	0
CHP and/or Cogeneration Process	--	0	*	Q	*	*
<b>Direct Uses—Total Process</b>	<b>11,006</b>	<b>0</b>	<b>*</b>	<b>48</b>	<b>*</b>	<b>0</b>
Process Heating	705	0	*	45	*	0
Process Cooling and Refrigeration	3,506	0	*	1	*	0
Machine Drive	6,506	0	*	2	*	0
Electro-Chemical Processes	41	--	--	--	--	--
Other Process Use	249	0	*	*	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>2,848</b>	<b>0</b>	<b>*</b>	<b>22</b>	<b>*</b>	<b>0</b>
Facility HVAC <sup>†</sup>	1,427	0	*	Q	*	0
Facility Lighting	788	--	--	--	--	--
Other Facility Support	284	0	*	1	*	0
Onsite Transportation	217	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	132	0	*	1	*	0
<b>End use not reported</b>	<b>Q</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>

<b>3122</b>	<b>Tobacco</b>						
	<b>Total fuel consumption</b>	749	0	*	4	*	0
	<b>Indirect Uses—Boiler Fuel</b>	12	0	*	4	*	0
	Conventional Boiler Use	12	0	*	2	*	0
	CHP and/or Cogeneration Process	--	0	*	2	*	0
	<b>Direct Uses—Total Process</b>	429	0	*	*	*	0
	Process Heating	22	0	*	*	*	0
	Process Cooling and Refrigeration	35	0	0	*	0	0
	Machine Drive	364	0	*	*	0	0
	Electro-Chemical Processes	1	--	--	--	--	--
	Other Process Use	7	0	*	0	*	0
	<b>Direct Uses—Total Nonprocess</b>	307	0	*	*	*	0
	Facility HVAC	179	0	*	*	*	0
	Facility Lighting	76	--	--	--	--	--
	Other Facility Support	39	0	*	*	*	0
	Onsite Transportation	12	--	*	*	*	--
	Conventional Electricity Generation	--	0	0	*	0	0
	Other Nonprocess Use	*	0	*	*	*	0
	<b>End use not reported</b>	0	0	0	0	*	0
<b>313</b>	<b>Textile mills</b>						
	<b>Total fuel consumption</b>	8,887	0	*	23	*	*
	<b>Indirect Uses—Boiler Fuel</b>	192	0	*	10	*	*
	Conventional Boiler Use	192	0	*	5	*	*
	CHP and/or Cogeneration Process	--	0	*	5	*	*
	<b>Direct Uses—Total Process</b>	6,355	0	*	12	*	*
	Process Heating	575	0	*	10	*	*
	Process Cooling and Refrigeration	483	0	0	*	0	*
	Machine Drive	5,233	0	*	1	*	*
	Electro-Chemical Processes	20	--	--	--	--	--
	Other Process Use	43	0	*	*	*	0
	<b>Direct Uses—Total Nonprocess</b>	2,123	0	*	1	*	0
	Facility HVAC	1,549	0	0	1	--	0
	Facility Lighting	418	--	--	--	--	--
	Other Facility Support	106	0	0	*	0	0
	Onsite Transportation	49	--	*	*	*	--
	Conventional Electricity Generation	--	0	0	*	0	0
	Other Nonprocess Use	2	0	*	*	0	0
	<b>End use not reported</b>	217	0	*	Q	*	0
<b>314</b>	<b>Textile product mills</b>						

<b>Total fuel consumption</b>	3,154	0	*	10	*	0
<b>Indirect Uses—Boiler Fuel</b>	Q	0	*	3	*	0
Conventional Boiler Use	Q	0	*	2	*	0
CHP and/or Cogeneration Process	--	0	0	1	*	0
<b>Direct Uses—Total Process</b>	2,036	0	0	4	*	0
Process Heating	49	0	0	4	*	0
Process Cooling and Refrigeration	121	0	0	*	0	0
Machine Drive	1,803	0	0	*	*	0
Electro-Chemical Processes	11	--	--	--	--	--
Other Process Use	52	0	0	0	0	0
<b>Direct Uses—Total Nonprocess</b>	830	0	*	1	*	0
Facility HVAC	526	0	0	1	--	0
Facility Lighting	209	--	--	--	--	--
Other Facility Support	77	0	0	*	*	0
Onsite Transportation	18	--	*	0	*	--
Conventional Electricity Generation	--	0	*	--	--	0
Other Nonprocess Use	0	0	0	0	0	0
<b>End use not reported</b>	207	0	0	Q	0	0

### 315 Apparel

<b>Total fuel consumption</b>	542	0	*	1	*	0
<b>Indirect Uses—Boiler Fuel</b>	Q	0	*	*	*	0
Conventional Boiler Use	Q	0	*	*	0	0
CHP and/or Cogeneration Process	--	0	0	*	*	0
<b>Direct Uses—Total Process</b>	207	0	0	*	*	0
Process Heating	8	0	0	*	0	0
Process Cooling and Refrigeration	17	0	0	0	0	0
Machine Drive	181	0	0	*	*	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	0	0	0	*	0	0
<b>Direct Uses—Total Nonprocess</b>	307	0	*	*	*	0
Facility HVAC	159	0	0	*	*	0
Facility Lighting	103	--	--	--	--	--
Other Facility Support	11	0	0	*	*	0
Onsite Transportation	Q	--	0	0	--	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	30	0	*	*	0	0
<b>End use not reported</b>	Q	0	0	*	0	0

### 316 Leather and allied products

<b>Total fuel consumption</b>	243	0	*	2	*	0
<b>Indirect Uses—Boiler Fuel</b>	2	0	*	*	0	0

Conventional Boiler Use	2	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	*	*	0	0
<b>Direct Uses—Total Process</b>	<b>160</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Process Heating	11	0	*	*	*	0
Process Cooling and Refrigeration	8	0	0	*	*	0
Machine Drive	140	0	0	*	*	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	Q	0	0	0	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>78</b>	<b>0</b>	<b>*</b>	<b>Q</b>	<b>*</b>	<b>0</b>
Facility HVAC <sup>f</sup>	40	0	*	Q	*	0
Facility Lighting	25	--	--	--	--	--
Other Facility Support	11	0	0	*	*	0
Onsite Transportation	3	--	0	0	--	--
Conventional Electricity Generation	--	0	0	0	*	0
Other Nonprocess Use	0	0	*	0	0	0
<b>End use not reported</b>	<b>Q</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**321 Wood products**

<b>Total fuel consumption</b>	<b>22,396</b>	<b>*</b>	<b>2</b>	<b>77</b>	<b>1</b>	<b>*</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>794</b>	<b>0</b>	<b>*</b>	<b>17</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	794	0	*	3	*	0
CHP and/or Cogeneration Process	--	0	*	14	*	0
<b>Direct Uses—Total Process</b>	<b>18,204</b>	<b>*</b>	<b>*</b>	<b>52</b>	<b>*</b>	<b>*</b>
Process Heating	2,363	*	*	48	*	*
Process Cooling and Refrigeration	291	0	*	*	*	0
Machine Drive	15,093	*	*	1	*	0
Electro-Chemical Processes	203	--	--	--	--	--
Other Process Use	253	0	*	2	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>3,022</b>	<b>*</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>0</b>
Facility HVAC <sup>f</sup>	1,269	*	*	7	*	0
Facility Lighting	1,249	--	--	--	--	--
Other Facility Support	329	*	*	*	*	0
Onsite Transportation	85	--	1	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	90	0	*	*	*	0
<b>End use not reported</b>	<b>377</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>

**321113 Sawmills**

<b>Total fuel consumption</b>	<b>9,469</b>	<b>*</b>	<b>1</b>	<b>17</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>335</b>	<b>0</b>	<b>*</b>	<b>3</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	335	0	*	1	*	0
CHP and/or Cogeneration Process	--	0	*	2	*	0
<b>Direct Uses—Total Process</b>	<b>8,078</b>	<b>*</b>	<b>*</b>	<b>13</b>	<b>*</b>	<b>0</b>



Process Heating	516	*	*	13	*	0
Process Cooling and Refrigeration	98	0	0	0	0	0
Machine Drive	7,262	*	*	*	*	0
Electro-Chemical Processes	3	--	--	--	--	--
Other Process Use	198	0	*	*	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>1,024</b>	<b>*</b>	<b>1</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC	408	*	*	1	*	0
Facility Lighting	468	--	--	--	--	--
Other Facility Support	105	0	*	*	*	0
Onsite Transportation	17	--	1	*	*	--
Conventional Electricity Generation	--	0	*	0	*	0
Other Nonprocess Use	26	0	*	0	*	0
<b>End use not reported</b>	<b>32</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>

**3212 Veneer, plywood, and engineered wood product manufacturing**

<b>Total fuel consumption</b>	<b>5,947</b>	<b>*</b>	<b>*</b>	<b>36</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>298</b>	<b>0</b>	<b>*</b>	<b>10</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	298	0	*	2	*	0
CHP and/or Cogeneration Process	--	0	*	9	*	0
<b>Direct Uses—Total Process</b>	<b>4,643</b>	<b>*</b>	<b>*</b>	<b>24</b>	<b>*</b>	<b>0</b>
Process Heating	226	*	*	21	*	0
Process Cooling and Refrigeration	66	0	0	*	*	0
Machine Drive	4,291	*	*	1	*	0
Electro-Chemical Processes	44	--	--	--	--	--
Other Process Use	16	0	*	2	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>780</b>	<b>*</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Facility HVAC	302	*	0	2	*	0
Facility Lighting	373	--	--	--	--	--
Other Facility Support	72	*	*	*	*	0
Onsite Transportation	10	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	23	0	*	*	*	0
<b>End use not reported</b>	<b>226</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>

**321219 Reconstituted wood products**

<b>Total fuel consumption</b>	<b>3,158</b>	<b>*</b>	<b>*</b>	<b>21</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>189</b>	<b>0</b>	<b>*</b>	<b>3</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	189	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	*	2	*	0
<b>Direct Uses—Total Process</b>	<b>2,526</b>	<b>*</b>	<b>*</b>	<b>18</b>	<b>*</b>	<b>0</b>
Process Heating	65	*	*	16	*	0
Process Cooling and Refrigeration	23	0	0	*	0	0
Machine Drive	2,407	*	*	1	*	0

Electro-Chemical Processes	31	--	--	--	--	--
Other Process Use	1	0	0	1	0	0
<b>Direct Uses—Total Nonprocess</b>	<b>288</b>	<b>*</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC	121	*	0	1	*	0
Facility Lighting	147	--	--	--	--	--
Other Facility Support	19	*	*	*	0	0
Onsite Transportation	1	--	*	0	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	0	0	0	0	0	0
<b>End use not reported</b>	<b>155</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>	<b>0</b>

### 3219 Other wood products

<b>Total fuel consumption</b>	<b>6,466</b>	<b>0</b>	<b>*</b>	<b>20</b>	<b>*</b>	<b>*</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>136</b>	<b>0</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	136	0	*	1	0	0
CHP and/or Cogeneration Process	--	0	0	1	*	0
<b>Direct Uses—Total Process</b>	<b>5,116</b>	<b>0</b>	<b>*</b>	<b>14</b>	<b>*</b>	<b>*</b>
Process Heating	Q	0	0	13	*	*
Process Cooling and Refrigeration	111	0	*	*	0	0
Machine Drive	3,280	0	*	*	*	0
Electro-Chemical Processes	155	--	--	--	--	--
Other Process Use	37	0	*	*	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>1,110</b>	<b>0</b>	<b>*</b>	<b>4</b>	<b>*</b>	<b>0</b>
Facility HVAC	522	0	*	4	*	0
Facility Lighting	379	--	--	--	--	--
Other Facility Support	116	0	0	*	*	0
Onsite Transportation	53	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	Q	0	*	0	*	0
<b>End use not reported</b>	<b>Q</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>

### 322 Paper

<b>Total fuel consumption</b>	<b>96,642</b>	<b>1</b>	<b>1</b>	<b>595</b>	<b>1</b>	<b>2</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>3,219</b>	<b>1</b>	<b>*</b>	<b>393</b>	<b>*</b>	<b>2</b>
Conventional Boiler Use	3,219	*	*	67	*	*
CHP and/or Cogeneration Process	--	1	*	326	*	2
<b>Direct Uses—Total Process</b>	<b>79,801</b>	<b>*</b>	<b>*</b>	<b>168</b>	<b>*</b>	<b>*</b>
Process Heating	4,237	*	*	142	*	0
Process Cooling and Refrigeration	2,138	0	0	2	0	0
Machine Drive	71,973	0	*	22	*	*
Electro-Chemical Processes	717	--	--	--	--	--
Other Process Use	735	0	*	3	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>13,367</b>	<b>*</b>	<b>*</b>	<b>32</b>	<b>1</b>	<b>*</b>

	Facility HVAC <sup>f</sup>	5,896	0	*	20	*	0
	Facility Lighting	4,762	--	--	--	--	--
	Other Facility Support	1,424	0	*	2	*	0
	Onsite Transportation	396	--	*	1	*	--
	Conventional Electricity Generation	--	*	*	7	*	*
	Other Nonprocess Use	889	0	*	1	*	0
	<b>End use not reported</b>	Q	*	0	Q	*	0
<b>322110</b>	<b>Pulp mills</b>						
	<b>Total fuel consumption</b>	19,673	*	*	53	*	*
	<b>Indirect Uses—Boiler Fuel</b>	607	*	*	32	*	*
	Conventional Boiler Use	607	0	*	1	0	0
	CHP and/or Cogeneration Process	--	*	*	31	*	*
	<b>Direct Uses—Total Process</b>	16,628	0	*	21	0	0
	Process Heating	612	0	*	21	0	0
	Process Cooling and Refrigeration	178	0	0	0	0	0
	Machine Drive	15,455	0	*	*	0	0
	Electro-Chemical Processes	346	--	--	--	--	--
	Other Process Use	38	0	*	0	0	0
	<b>Direct Uses—Total Nonprocess</b>	2,438	0	*	*	*	0
	Facility HVAC <sup>f</sup>	1,449	0	*	*	*	0
	Facility Lighting	853	--	--	--	--	--
	Other Facility Support	126	0	0	*	0	0
	Onsite Transportation	9	--	*	*	*	--
	Conventional Electricity Generation	--	0	0	*	0	0
	Other Nonprocess Use	0	0	*	0	0	0
	<b>End use not reported</b>	0	0	0	0	0	0
<b>322120</b>	<b>Paper mills</b>						
	<b>Total fuel consumption</b>	25,430	*	*	181	*	1
	<b>Indirect Uses—Boiler Fuel</b>	528	*	*	126	*	1
	Conventional Boiler Use	528	*	*	29	*	0
	CHP and/or Cogeneration Process	--	*	*	97	*	1
	<b>Direct Uses—Total Process</b>	21,852	0	*	51	*	0
	Process Heating	1,190	0	0	46	*	0
	Process Cooling and Refrigeration	458	0	0	0	0	0
	Machine Drive	20,116	0	*	6	*	0
	Electro-Chemical Processes	50	--	--	--	--	--
	Other Process Use	38	0	0	*	0	0
	<b>Direct Uses—Total Nonprocess</b>	3,050	*	*	4	*	0
	Facility HVAC <sup>f</sup>	1,234	0	*	3	*	0
	Facility Lighting	994	--	--	--	--	--
	Other Facility Support	321	0	*	*	*	0

Onsite Transportation	39	--	*	0	*	--
Conventional Electricity Generation	--	*	*	*	*	0
Other Nonprocess Use	462	0	*	1	0	0
<b>End use not reported</b>	0	0	0	0	*	0

**322130 Paperboard mills**

<b>Total fuel consumption</b>	34,640	*	*	269	*	1
<b>Indirect Uses—Boiler Fuel</b>	1,799	*	*	190	*	1
Conventional Boiler Use	1,799	*	*	26	0	*
CHP and/or Cogeneration Process	--	*	*	164	*	1
<b>Direct Uses—Total Process</b>	28,167	--	--	62	--	--
Process Heating	1,813	*	*	50	*	0
Process Cooling and Refrigeration	748	0	0	2	0	0
Machine Drive	24,898	0	*	9	*	*
Electro-Chemical Processes	140	--	--	--	--	--
Other Process Use	568	0	*	2	*	0
<b>Direct Uses—Total Nonprocess</b>	4,674	0	*	16	*	*
Facility HVAC	1,812	0	*	6	*	0
Facility Lighting	1,793	--	--	--	--	--
Other Facility Support	644	0	*	2	*	0
Onsite Transportation	111	--	*	1	*	--
Conventional Electricity Generation	--	0	0	7	*	*
Other Nonprocess Use	314	0	0	*	*	0
<b>End use not reported</b>	0	*	0	0	*	0

**323 Printing and related support**

<b>Total fuel consumption</b>	9,529	*	*	20	*	0
<b>Indirect Uses—Boiler Fuel</b>	34	0	0	3	*	0
Conventional Boiler Use	34	0	0	3	*	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses—Total Process</b>	5,917	0	*	9	*	0
Process Heating	152	0	0	6	*	0
Process Cooling and Refrigeration	571	0	0	*	0	0
Machine Drive	5,048	0	*	2	0	0
Electro-Chemical Processes	140	--	--	--	--	--
Other Process Use	Q	0	0	*	*	0
<b>Direct Uses—Total Nonprocess</b>	3,566	*	*	9	*	0
Facility HVAC	1,544	*	0	7	*	0
Facility Lighting	1,346	--	--	--	--	--
Other Facility Support	501	0	0	*	0	0
Onsite Transportation	114	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	Q	0	*	Q	0	0

	End use not reported	Q	0	0	*	*	0
324	Petroleum and coal products						
	Total fuel consumption	69,531	*	1	1,068	8	*
	Indirect Uses—Boiler Fuel	402	*	*	339	1	0
	Conventional Boiler Use	402	0	*	104	1	0
	CHP and/or Cogeneration Process	--	*	*	236	*	0
	Direct Uses—Total Process	64,972	*	1	681	7	*
	Process Heating	1,988	*	*	605	6	0
	Process Cooling and Refrigeration	3,143	0	0	6	*	0
	Machine Drive	57,299	0	--	15	--	0
	Electro-Chemical Processes	2,198	--	--	--	--	--
	Other Process Use	344	0	*	55	*	*
	Direct Uses—Total Nonprocess	4,126	*	1	42	*	0
	Facility HVAC	2,071	0	*	5	*	0
	Facility Lighting	1,459	--	--	--	--	--
	Other Facility Support	561	0	*	1	*	0
	Onsite Transportation	16	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	25	*	0
	Other Nonprocess Use	19	*	*	12	*	0
	End use not reported	31	*	*	6	*	0
324110	Petroleum refineries						
	Total fuel consumption	65,523	*	1	984	8	0
	Indirect Uses—Boiler Fuel	297	*	0	324	1	0
	Conventional Boiler Use	297	0	0	100	1	0
	CHP and/or Cogeneration Process	--	*	0	225	*	0
	Direct Uses—Total Process	61,812	*	*	616	6	0
	Process Heating	1,741	*	*	553	6	0
	Process Cooling and Refrigeration	2,916	0	0	6	*	0
	Machine Drive	54,797	0	*	4	*	0
	Electro-Chemical Processes	2,074	--	--	--	--	--
	Other Process Use	284	0	*	53	*	0
	Direct Uses—Total Nonprocess	3,414	0	*	38	*	0
	Facility HVAC	1,784	0	*	2	*	0
	Facility Lighting	1,137	--	--	--	--	--
	Other Facility Support	477	0	0	*	*	0
	Onsite Transportation	2	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	24	*	0
	Other Nonprocess Use	14	0	*	10	*	0
	End use not reported	0	*	*	6	*	0
324121	Asphalt paving mixture and block						

	2010	2011	2012	2013	2014
<b>Total fuel consumption</b>	<b>1,648</b>	<b>*</b>	<b>1</b>	<b>51</b>	<b>*</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>46</b>	<b>0</b>	<b>*</b>	<b>3</b>	<b>*</b>
Conventional Boiler Use	46	0	0	*	*
CHP and/or Cogeneration Process	--	0	*	3	*
<b>Direct Uses—Total Process</b>	<b>1,310</b>	<b>*</b>	<b>*</b>	<b>45</b>	<b>*</b>
Process Heating	126	*	*	36	*
Process Cooling and Refrigeration	Q	0	0	*	0
Machine Drive	1,085	0	*	8	*
Electro-Chemical Processes	10	--	--	--	--
Other Process Use	23	0	*	1	*
<b>Direct Uses—Total Nonprocess</b>	<b>271</b>	<b>*</b>	<b>*</b>	<b>2</b>	<b>*</b>
Facility HVAC <sup>C</sup>	109	0	*	1	*
Facility Lighting	123	--	--	--	--
Other Facility Support	30	0	*	*	*
Onsite Transportation	5	--	*	0	*
Conventional Electricity Generation	--	0	*	0	0
Other Nonprocess Use	4	*	*	Q	0
<b>End use not reported</b>	<b>22</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>

**324122 Asphalt shingle and coating materials**

<b>Total fuel consumption</b>	<b>829</b>	<b>0</b>	<b>*</b>	<b>11</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>14</b>	<b>0</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	14	0	*	1	*	0
CHP and/or Cogeneration Process	--	0	0	1	*	0
<b>Direct Uses—Total Process</b>	<b>683</b>	<b>0</b>	<b>*</b>	<b>8</b>	<b>*</b>	<b>0</b>
Process Heating	50	0	*	7	*	0
Process Cooling and Refrigeration	34	0	0	*	0	0
Machine Drive	561	0	*	1	*	0
Electro-Chemical Processes	34	--	--	--	--	--
Other Process Use	5	0	*	*	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>133</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC	60	0	*	1	*	0
Facility Lighting	53	--	--	--	--	--
Other Facility Support	17	0	0	*	*	0
<b>Onsite Transportation</b>	<b>2</b>	<b>--</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>
Conventional Electricity Generation	--	0	*	*	0	--
Other Nonprocess Use	0	0	*	0	*	0
<b>End use not reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## 324191 Petroleum lubricating oil and grease manufacturing

<b>Total fuel consumption</b>	<b>720</b>	<b>0</b>	<b>*</b>	<b>12</b>	<b>*</b>	<b>0</b>
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<b>Indirect Uses—Boiler Fuel</b>	35	0	*	5	*	0
Conventional Boiler Use	35	0	0	2	0	0
CHP and/or Cogeneration Process	--	0	*	3	*	0
<b>Direct Uses—Total Process</b>	504	0	*	6	*	0
Process Heating	38	0	0	4	0	0
Process Cooling and Refrigeration	89	0	0	*	*	0
Machine Drive	340	0	*	2	*	0
Electro-Chemical Processes	5	--	--	--	--	--
Other Process Use	33	0	*	*	0	0
<b>Direct Uses—Total Nonprocess</b>	174	0	*	1	*	0
Facility HVAC	81	0	*	1	*	0
Facility Lighting	60	--	--	--	--	--
Other Facility Support	27	0	*	*	*	0
Onsite Transportation	6	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	*	0	0
<b>End use not reported</b>	7	0	0	0	0	0

**324199 All other petroleum and coal products manufacturing**

<b>Total fuel consumption</b>	810	0	*	10	*	*
<b>Indirect Uses—Boiler Fuel</b>	10	0	0	4	*	0
Conventional Boiler Use	10	0	0	1	0	0
CHP and/or Cogeneration Process	--	0	0	4	*	0
<b>Direct Uses—Total Process</b>	664	0	*	5	*	*
Process Heating	34	0	*	5	*	0
Process Cooling and Refrigeration	39	0	0	*	0	0
Machine Drive	516	0	*	*	0	0
Electro-Chemical Processes	75	--	--	--	--	--
Other Process Use	*	0	*	*	0	*
<b>Direct Uses—Total Nonprocess</b>	134	0	*	*	*	0
Facility HVAC	37	0	0	*	*	0
Facility Lighting	86	--	--	--	--	--
Other Facility Support	10	0	*	*	*	0
Onsite Transportation	2	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	1	0	0	*	*	0
<b>End use not reported</b>	2	0	0	0	0	0

**325 Chemicals**

<b>Total fuel consumption</b>	210,095	*	1	2,490	5	3
<b>Indirect Uses—Boiler Fuel</b>	4,336	*	1	1,388	1	1
Conventional Boiler Use	4,336	*	*	446	*	*
CHP and/or Cogeneration Process	--	*	*	942	1	*

	<b>Direct Uses—Total Process</b>	172,630	0	*	1,021	4	*
	Process Heating	6,682	0	*	743	2	*
	Process Cooling and Refrigeration	18,940	0	*	11	*	*
	Machine Drive	107,200	0	*	121	*	*
	Electro-Chemical Processes	36,653	--	--	--	--	--
	Other Process Use	3,156	0	*	146	1	*
	<b>Direct Uses—Total Nonprocess</b>	24,435	0	*	78	1	*
	Facility HVAC	13,735	0	*	58	*	*
	Facility Lighting	6,869	--	--	--	--	--
	Other Facility Support	2,495	0	*	12	*	*
	Onsite Transportation	556	--	*	1	1	--
	Conventional Electricity Generation	--	0	*	5	*	*
	Other Nonprocess Use	779	0	--	2	--	--
	<b>End use not reported</b>	8,694	0	*	4	*	2
<b>325110</b>	<b>Petrochemicals</b>						
	<b>Total fuel consumption</b>	12,317	0	*	390	2	0
	<b>Indirect Uses—Boiler Fuel</b>	627	0	*	175	*	0
	Conventional Boiler Use	627	0	*	48	*	0
	CHP and/or Cogeneration Process	--	0	0	126	*	0
	<b>Direct Uses—Total Process</b>	11,075	0	*	211	1	0
	Process Heating	320	0	*	174	1	0
	Process Cooling and Refrigeration	2,079	0	0	0	*	0
	Machine Drive	8,572	0	*	11	*	0
	Electro-Chemical Processes	56	--	--	--	--	--
	Other Process Use	46	0	*	26	*	0
	<b>Direct Uses—Total Nonprocess</b>	616	0	*	5	*	0
	Facility HVAC	350	0	0	*	*	0
	Facility Lighting	228	--	--	--	--	--
	Other Facility Support	38	0	0	2	*	0
	Onsite Transportation	*	--	*	0	*	--
	Conventional Electricity Generation	--	0	*	3	*	0
	Other Nonprocess Use	0	0	*	0	0	0
	<b>End use not reported</b>	0	0	0	0	*	0
<b>325120</b>	<b>Industrial gases</b>						
	<b>Total fuel consumption</b>	30,377	0	*	90	*	0
	<b>Indirect Uses—Boiler Fuel</b>	34	0	*	51	0	0
	Conventional Boiler Use	34	0	*	8	0	0
	CHP and/or Cogeneration Process	--	0	0	42	0	0
	<b>Direct Uses—Total Process</b>	24,061	0	*	39	*	0
	Process Heating	45	0	0	D	*	0
	Process Cooling and Refrigeration	857	0	0	*	0	0



Machine Drive	20,312	0	*	D	*	0
Electro-Chemical Processes	923	--	--	--	--	--
Other Process Use	1,924	0	0	8	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>1,037</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Facility HVAC	736	0	*	*	0	0
Facility Lighting	266	--	--	--	--	--
Other Facility Support	35	0	0	*	0	0
Onsite Transportation	0	--	*	*	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	0	0	*	*	0	0
<b>End use not reported</b>	<b>Q</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**325180 Other basic inorganic chemical manufacturing**

<b>Total fuel consumption</b>	<b>39,266</b>	<b>0</b>	<b>*</b>	<b>207</b>	<b>*</b>	<b>1</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>227</b>	<b>0</b>	<b>*</b>	<b>104</b>	<b>*</b>	<b>*</b>
Conventional Boiler Use	227	0	*	13	*	*
CHP and/or Cogeneration Process	--	0	*	90	0	0
<b>Direct Uses—Total Process</b>	<b>36,491</b>	<b>0</b>	<b>*</b>	<b>98</b>	<b>*</b>	<b>*</b>
Process Heating	2,036	0	*	42	*	*
Process Cooling and Refrigeration	1,541	0	0	*	0	0
Machine Drive	9,703	0	*	54	*	0
Electro-Chemical Processes	23,185	--	--	--	--	--
Other Process Use	25	0	*	2	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>2,499</b>	<b>0</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Facility HVAC	1,291	0	0	4	*	0
Facility Lighting	845	--	--	--	--	--
Other Facility Support	287	0	0	1	0	0
Onsite Transportation	18	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	*	0
Other Nonprocess Use	57	0	*	*	*	0
<b>End use not reported</b>	<b>49</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>1</b>

**325193 Ethyl alcohol**

<b>Total fuel consumption</b>	<b>11,569</b>	<b>0</b>	<b>*</b>	<b>368</b>	<b>*</b>	<b>1</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>544</b>	<b>0</b>	<b>0</b>	<b>209</b>	<b>0</b>	<b>*</b>
Conventional Boiler Use	544	0	0	142	0	0
CHP and/or Cogeneration Process	--	0	0	67	0	*
<b>Direct Uses—Total Process</b>	<b>10,305</b>	<b>0</b>	<b>*</b>	<b>151</b>	<b>*</b>	<b>0</b>
Process Heating	329	0	0	125	0	0
Process Cooling and Refrigeration	1,760	0	0	6	0	0
Machine Drive	8,081	0	*	13	*	0
Electro-Chemical Processes	43	--	--	--	--	--
Other Process Use	92	0	*	7	*	0

	<b>Direct Uses—Total Nonprocess</b>	719	0	*	8	*	0
	Facility HVAC	361	0	*	4	*	0
	Facility Lighting	245	--	--	--	--	--
	Other Facility Support	102	0	*	2	*	0
	Onsite Transportation	10	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	1	0	0
	Other Nonprocess Use	Q	0	*	*	*	0
	<b>End use not reported</b>	0	0	0	0	*	1
<b>325194</b>	<b>Cyclic crudes, intermediate and gum and wood chemicals</b>						
	<b>Total fuel consumption</b>	4,787	0	*	38	2	0
	<b>Indirect Uses—Boiler Fuel</b>	27	0	*	15	1	0
	Conventional Boiler Use	27	0	*	3	0	0
	CHP and/or Cogeneration Process	--	0	*	12	1	0
	<b>Direct Uses—Total Process</b>	4,229	0	*	22	1	0
	Process Heating	104	0	*	20	1	0
	Process Cooling and Refrigeration	366	0	0	*	0	0
	Machine Drive	2,515	0	0	0	*	0
	Electro-Chemical Processes	1,243	--	--	--	--	--
	Other Process Use	1	0	*	2	0	0
	<b>Direct Uses—Total Nonprocess</b>	531	0	*	*	*	0
	Facility HVAC	307	0	0	*	*	0
	Facility Lighting	184	--	--	--	--	--
	Other Facility Support	34	0	0	*	*	0
	Onsite Transportation	4	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	0	0
	Other Nonprocess Use	2	0	*	0	0	0
	<b>End use not reported</b>	0	0	0	0	0	0
<b>325199</b>	<b>All other basic organic chemical manufacturing</b>						
	<b>Total fuel consumption</b>	23,986	*	*	298	*	1
	<b>Indirect Uses—Boiler Fuel</b>	317	*	*	186	*	*
	Conventional Boiler Use	317	*	*	85	*	*
	CHP and/or Cogeneration Process	--	*	*	101	--	*
	<b>Direct Uses—Total Process</b>	20,409	0	*	108	*	*
	Process Heating	324	0	*	83	*	0
	Process Cooling and Refrigeration	2,863	0	0	1	*	0
	Machine Drive	14,100	0	*	2	--	0
	Electro-Chemical Processes	3,005	--	--	--	--	--
	Other Process Use	117	0	*	22	*	*
	<b>Direct Uses—Total Nonprocess</b>	2,496	0	*	4	*	0
	Facility HVAC	1,139	0	0	3	*	0
	Facility Lighting	758	--	--	--	--	--

	Other Facility Support	315	0	*	*	*	0
	Onsite Transportation	48	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	*	0
	Other Nonprocess Use	236	0	*	*	*	0
	<b>End use not reported</b>	<b>765</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>
<b>325211</b>	<b>Plastics materials and resins</b>						
	<b>Total fuel consumption</b>	<b>39,201</b>	<b>0</b>	<b>*</b>	<b>484</b>	<b>1</b>	<b>0</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>574</b>	<b>0</b>	<b>*</b>	<b>365</b>	<b>*</b>	<b>0</b>
	Conventional Boiler Use	574	0	*	43	*	0
	CHP and/or Cogeneration Process	--	0	*	323	*	0
	<b>Direct Uses—Total Process</b>	<b>34,666</b>	<b>0</b>	<b>*</b>	<b>111</b>	<b>1</b>	<b>0</b>
	Process Heating	1,161	0	*	95	*	0
	Process Cooling and Refrigeration	3,657	0	*	1	*	0
	Machine Drive	22,256	0	*	8	*	0
	Electro-Chemical Processes	7,312	--	--	--	--	--
	Other Process Use	279	--	*	7	1	0
	<b>Direct Uses—Total Nonprocess</b>	<b>3,891</b>	<b>0</b>	<b>*</b>	<b>7</b>	<b>*</b>	<b>0</b>
	Facility HVAC	2,090	0	0	4	*	0
	Facility Lighting	1,249	--	--	--	--	--
	Other Facility Support	461	0	*	1	*	0
	Onsite Transportation	84	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	*	0
	Other Nonprocess Use	7	0	*	Q	*	0
	<b>End use not reported</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>
<b>325212</b>	<b>Synthetic rubber</b>						
	<b>Total fuel consumption</b>	<b>1,604</b>	<b>0</b>	<b>*</b>	<b>26</b>	<b>*</b>	<b>*</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>106</b>	<b>0</b>	<b>*</b>	<b>21</b>	<b>0</b>	<b>*</b>
	Conventional Boiler Use	106	0	*	16	0	*
	CHP and/or Cogeneration Process	--	0	0	6	0	*
	<b>Direct Uses—Total Process</b>	<b>1,300</b>	<b>0</b>	<b>*</b>	<b>4</b>	<b>*</b>	<b>*</b>
	Process Heating	72	0	0	3	*	*
	Process Cooling and Refrigeration	346	0	*	*	*	*
	Machine Drive	774	0	*	*	*	*
	Electro-Chemical Processes	101	--	--	--	--	--
	Other Process Use	8	0	*	1	0	0
	<b>Direct Uses—Total Nonprocess</b>	<b>198</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>	<b>*</b>
	Facility HVAC	100	0	0	*	0	*
	Facility Lighting	60	--	--	--	--	--
	Other Facility Support	26	0	0	*	0	*
	Onsite Transportation	12	--	*	0	*	--
	Conventional Electricity Generation	--	0	*	0	*	*

Other Nonprocess Use		*	0	*	*	*	0
End use not reported		0	0	0	0	*	0
		2,563	0	*	16	*	0
325220	Artificial and synthetic fibers and filaments						
Total fuel consumption							
Indirect Uses—Boiler Fuel		46	0	*	11	*	0
Conventional Boiler Use		46	0	*	6	0	0
CHP and/or Cogeneration Process		--	0	*	5	*	0
Direct Uses—Total Process		1,989	0	*	2	*	0
Process Heating		204	0	0	2	*	0
Process Cooling and Refrigeration		310	0	0	0	0	0
Machine Drive		1,396	0	*	*	0	0
Electro-Chemical Processes		71	--	--	--	--	--
Other Process Use		7	0	0	*	*	0
Direct Uses—Total Nonprocess		528	0	*	3		0
Facility HVAC <sup>1</sup>		310	0	0	3	*	0
Facility Lighting		145	--	--	--	--	--
Other Facility Support		56	0	0	*	*	0
Onsite Transportation		10	--	*	*	*	--
Conventional Electricity Generation		--	0	0	*	*	0
Other Nonprocess Use		7	0	*	0	*	0
End use not reported		0	0	0	0	0	0
325311	Nitrogenous fertilizers						
Total fuel consumption		5,607	0	*	189	*	0
Indirect Uses—Boiler Fuel		104	0	*	44	*	0
Conventional Boiler Use		104	0	0	20	*	0
CHP and/or Cogeneration Process		--	0	*	23	*	0
Direct Uses—Total Process		4,670	0	*	141	*	0
Process Heating		106	0	*	106	*	0
Process Cooling and Refrigeration		516	0	0	*	*	0
Machine Drive		3,636	0	*	1	*	0
Electro-Chemical Processes		398	--	--	--	--	--
Other Process Use		14	0	*	33	0	0
Direct Uses—Total Nonprocess		450	0	*	1	*	0
Facility HVAC <sup>1</sup>		238	0	0	1	*	0
Facility Lighting		139	--	--	--	--	--
Other Facility Support		61	0				0
Onsite Transportation		5	--	*	0	*	--
Conventional Electricity Generation		--	0	*	*	0	0
Other Nonprocess Use		7	0	*	*	*	0
End use not reported		383	0	*	3	*	0

<b>Total fuel consumption</b>	<b>3,424</b>	<b>*</b>	<b>1</b>	<b>3</b>	<b>*</b>	<b>*</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>10</b>	<b>*</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	10	*	0	1	0	0
CHP and/or Cogeneration Process	--	0	*	1	*	0
<b>Direct Uses—Total Process</b>	<b>2,117</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>*</b>
Process Heating	41	0	*	1	*	*
Process Cooling and Refrigeration	77	0	0	*	0	0
Machine Drive	1,999	0	*	0	*	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	0	0	*	0	0	0
<b>Direct Uses—Total Nonprocess</b>	<b>117</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
Facility HVAC <sup>f</sup>	53	0	*	*	*	0
Facility Lighting	47	--	--	--	--	--
Other Facility Support	17	0	0	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation		0	*	0	0	0
Other Nonprocess Use	0	0	0	*	*	0
<b>End use not reported</b>	<b>1,180</b>	<b>0</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>0</b>

## 3254 Pharmaceuticals and medicines

<b>Total fuel consumption</b>	<b>13,954</b>	<b>0</b>	<b>*</b>	<b>68</b>	<b>*</b>	<b>*</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>302</b>	<b>0</b>	<b>*</b>	<b>34</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	302	0	*	20	*	0
CHP and/or Cogeneration Process	--	0	*	14	*	0
<b>Direct Uses—Total Process</b>	<b>6,555</b>	<b>0</b>	<b>*</b>	<b>12</b>	<b>*</b>	<b>0</b>
Process Heating	459	0	*	7	*	0
Process Cooling and Refrigeration	2,312	0	*	Q	*	0
Machine Drive	3,400	0	*	Q	*	0
Electro-Chemical Processes	122	--	--	--	--	--
Other Process Use	262	0	*	1	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>6,792</b>	<b>0</b>	<b>*</b>	<b>21</b>	<b>*</b>	<b>*</b>
Facility HVAC	4,222	0	*	18	*	0
Facility Lighting	1,428	--	--	--	--	--
Other Facility Support	640	0	*	3	*	0
Onsite Transportation	169	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	Q	0	*	*	*	*
<b>End use not reported</b>	<b>305</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

<b>Total fuel consumption</b>	6,685	0	*	37	*	0
<b>Indirect Uses—Boiler Fuel</b>	123	0	*	17	*	0
Conventional Boiler Use	123	0	*	11	*	0
CHP and/or Cogeneration Process	--	0	*	6	*	0
<b>Direct Uses—Total Process</b>	3,208	0	*	Q	*	0
Process Heating	217	0	*	5	*	0
Process Cooling and Refrigeration	1,022	0	0	Q	0	0
Machine Drive	1,773	0	*	Q	*	0
Electro-Chemical Processes	9	--	--	--	--	--
Other Process Use	188	0	*	*	*	0
<b>Direct Uses—Total Nonprocess</b>	3,176	0	*	10	*	0
Facility HVAC	1,965	0	*	8	*	0
Facility Lighting	575	--	--	--	--	--
Other Facility Support	249	0	*	2	*	0
Onsite Transportation	84	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	Q	0	*	*	*	0
<b>End use not reported</b>	177	0	0	*	*	0

**325992 Photographic flm, paper, plate, chemical, and copy toner manufacturing**

<b>Total fuel consumption</b>	707	0	*	3	*	0
<b>Indirect Uses—Boiler Fuel</b>	8	0	0	2	0	0
Conventional Boiler Use	8	0	0	1	0	0
CHP and/or Cogeneration Process	--	0	0	1	0	0
<b>Direct Uses—Total Process</b>	442	0	*	1	0	0
Process Heating	30	0	0	*	0	0
Process Cooling and Refrigeration	100	0	0	*	0	0
Machine Drive	256	0	*	*	0	0
Electro-Chemical Processes	28	--	--	--	--	--
Other Process Use	28	0	*	*	0	0
<b>Direct Uses—Total Nonprocess</b>	258	0	*	*	*	0
Facility HVAC	142	0	*	*	*	0
Facility Lighting	70	--	--	--	--	--
Other Facility Support	31	0	*	*	0	0
Onsite Transportation	5	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	10	0	*	*	*	0
<b>End use not reported</b>	*	0	0	0	*	0

**326 Plastics and rubber products**

<b>Total fuel consumption</b>	71,359	*	*	102	1	0
<b>Indirect Uses—Boiler Fuel</b>	2,493	*	*	41	*	0
Conventional Boiler Use	2,493	*	*	13	0	0

	CHP and/or Cogeneration Process	--	0	*	28	*	0
	<b>Direct Uses—Total Process</b>	<b>48,793</b>	<b>*</b>	<b>*</b>	<b>36</b>	<b>*</b>	<b>0</b>
	Process Heating	6,110	0	*	26	*	0
	Process Cooling and Refrigeration	7,016	*	0	*	*	0
	Machine Drive	33,861	*	*	7	*	0
	Electro-Chemical Processes	Q	--	--	--	--	--
	Other Process Use	Q	0	*	Q	*	0
	<b>Direct Uses—Total Nonprocess</b>	<b>18,085</b>	<b>0</b>	<b>*</b>	<b>25</b>	<b>1</b>	<b>0</b>
	Facility HVAC	9,336	0	*	23	*	0
	Facility Lighting	6,590	--	--	--	--	--
	Other Facility Support	1,172	0	*	2	*	0
	Onsite Transportation	921	--	*	*	*	--
	Conventional Electricity Generation	--	0	--	--	--	0
	Other Nonprocess Use	Q	0	*	0	*	0
	<b>End use not reported</b>	<b>Q</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>
<b>327</b>	<b>Nonmetallic mineral products</b>						
	<b>Total fuel consumption</b>	<b>62,458</b>	<b>*</b>	<b>3</b>	<b>402</b>	<b>1</b>	<b>9</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>456</b>	<b>*</b>	<b>*</b>	<b>15</b>	<b>*</b>	<b>0</b>
	Conventional Boiler Use	456	0	0	4	*	0
	CHP and/or Cogeneration Process	--	*	*	12	*	0
	<b>Direct Uses—Total Process</b>	<b>51,329</b>	<b>0</b>	<b>2</b>	<b>362</b>	<b>*</b>	<b>9</b>
	Process Heating	11,493	0	*	337	*	9
	Process Cooling and Refrigeration	2,954	0	0	4	0	0
	Machine Drive	34,700	0	1	19	*	*
	Electro-Chemical Processes	1,179	--	--	--	--	--
	Other Process Use	1,002	0	Q	3	*	0
	<b>Direct Uses—Total Nonprocess</b>	<b>10,075</b>	<b>*</b>	<b>1</b>	<b>23</b>	<b>*</b>	<b>*</b>
	Facility HVAC	4,582	*	*	17	*	*
	Facility Lighting	3,745	--	--	--	--	--
	Other Facility Support	538	0	*	3	*	0
	Onsite Transportation	Q	--	1	1	*	--
	Conventional Electricity Generation	--	*	*	1	0	0
	Other Nonprocess Use	115	0	*	1	*	0
	<b>End use not reported</b>	<b>599</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
<b>327120</b>	<b>Clay building material and refractories</b>						
	<b>Total fuel consumption</b>	<b>1,487</b>	<b>0</b>	<b>*</b>	<b>29</b>	<b>*</b>	<b>*</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>
	Conventional Boiler Use	1	0	0	*	0	0
	CHP and/or Cogeneration Process	--	0	0	*	*	0
	<b>Direct Uses—Total Process</b>	<b>1,202</b>	<b>0</b>	<b>*</b>	<b>28</b>	<b>*</b>	<b>*</b>
	Process Heating	279	0	*	28	*	*

Process Cooling and Refrigeration	33	0	0	*	0	0
Machine Drive	884	0	*	*	*	0
Electro-Chemical Processes	3	--	--	--	--	--
Other Process Use	3	0	*	*	0	0
<b>Direct Uses—Total Nonprocess</b>	<b>276</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC	121	0	0	1	*	0
Facility Lighting	117	--	--	--	--	--
Other Facility Support	23	0	0	*	*	0
Onsite Transportation	14	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	1	0	*	0	*	0
<b>End use not reported</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**327211 Flat glass**

<b>Total fuel consumption</b>	<b>1,576</b>	<b>0</b>	<b>*</b>	<b>37</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>
Conventional Boiler Use	8	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	2	0	0
<b>Direct Uses—Total Process</b>	<b>1,345</b>	<b>0</b>	<b>*</b>	<b>34</b>	<b>*</b>	<b>0</b>
Process Heating	532	0	*	34	*	0
Process Cooling and Refrigeration	240	0	0	*	0	0
Machine Drive	528	0	0	0	*	0
Electro-Chemical Processes	3	--	--	--	--	--
Other Process Use	42	0	*	*	0	0
<b>Direct Uses—Total Nonprocess</b>	<b>223</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC	112	0	0	1	*	0
Facility Lighting	61	--	--	--	--	--
Other Facility Support	24	0	0	*	*	0
Onsite Transportation	21	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	5	0	0	*	0	0
<b>End use not reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

**327212 Other pressed and blown glass and glassware**

<b>Total fuel consumption</b>	<b>1,913</b>	<b>0</b>	<b>*</b>	<b>18</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	5	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses—Total Process</b>	<b>1,629</b>	<b>0</b>	<b>*</b>	<b>17</b>	<b>*</b>	<b>0</b>
Process Heating	803	0	0	17	*	0
Process Cooling and Refrigeration	212	0	0	*	0	0
Machine Drive	540	0	*	*	0	0
Electro-Chemical Processes	9	--	--	--	--	--



Other Process Use	65	0	0	*	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>279</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC	144	0	0	1	*	0
Facility Lighting	104	--	--	--	--	--
Other Facility Support	26	0	0	*	*	0
Onsite Transportation	5	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	0	0	0
<b>End use not reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>	<b>0</b>

<b>327213</b>	<b>Glass containers</b>					
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<b>Total fuel consumption</b>	<b>3,497</b>	<b>0</b>	<b>*</b>	<b>40</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>	<b>0</b>
Conventional Boiler Use	70	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses—Total Process</b>	<b>3,014</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>*</b>	<b>0</b>
Process Heating	1,834	0	0	30	*	0
Process Cooling and Refrigeration	239	0	0	2	0	0
Machine Drive	817	0	0	5	0	0
Electro-Chemical Processes	67	--	--	--	--	--
Other Process Use	57	0	0	*	0	0
<b>Direct Uses—Total Nonprocess</b>	<b>413</b>	<b>0</b>	<b>*</b>	<b>3</b>	<b>*</b>	<b>0</b>
Facility HVAC	226	0	*	2	0	0
Facility Lighting	133	--	--	--	--	--
Other Facility Support	45	0	0	1	0	0
Onsite Transportation	2	--	*	0	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	6	0	0	*	0	0
<b>End use not reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>327215</b>	<b>Glass products from purchased glass</b>					
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<b>Total fuel consumption</b>	<b>3,737</b>	<b>0</b>	<b>*</b>	<b>9</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
Conventional Boiler Use	32	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses—Total Process</b>	<b>2,682</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>*</b>	<b>0</b>
Process Heating	967	0	0	6	*	0
Process Cooling and Refrigeration	246	0	0	*	0	0
Machine Drive	960	0	0	*	*	0
Electro-Chemical Processes	28	--	--	--	--	--
Other Process Use	481	0	0	*	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>982</b>	<b>0</b>	<b>*</b>	<b>2</b>	<b>*</b>	<b>0</b>
Facility HVAC	592	0	*	2	*	0

	Facility Lighting	253	--	--	--	--	--
	Other Facility Support	88	0	*	*	0	0
	Onsite Transportation	34	--	*	*	*	--
	Conventional Electricity Generation	--	0	0	*	0	0
	Other Nonprocess Use	17	0	*	*	*	0
	<b>End use not reported</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>
<b>327310</b>	<b>Cements</b>						
	<b>Total fuel consumption</b>	<b>13,035</b>	<b>0</b>	<b>1</b>	<b>86</b>	<b>*</b>	<b>6</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>
	Conventional Boiler Use	58	0	0	*	*	0
	CHP and/or Cogeneration Process	--	0	0	*	0	0
	<b>Direct Uses—Total Process</b>	<b>12,342</b>	<b>0</b>	<b>*</b>	<b>86</b>	<b>*</b>	<b>6</b>
	Process Heating	1,148	0	*	81	*	6
	Process Cooling and Refrigeration	445	0	0	0	0	0
	Machine Drive	10,020	0	*	5	*	0
	Electro-Chemical Processes	512	--	--	--	--	--
	Other Process Use	217	0	*	0	0	0
	<b>Direct Uses—Total Nonprocess</b>	<b>635</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>*</b>
	Facility HVAC <sup>†</sup>	290	0	*	1	*	*
	Facility Lighting	212	--	--	--	--	--
	Other Facility Support	55	0	0	*	*	0
	Onsite Transportation	55	--	*	0	*	--
	Conventional Electricity Generation	--	0	0	0	0	0
	Other Nonprocess Use	24	0	*	0	*	0
	<b>End use not reported</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>	<b>*</b>	<b>0</b>
<b>327410</b>	<b>Lime</b>						
	<b>Total fuel consumption</b>	<b>1,371</b>	<b>0</b>	<b>*</b>	<b>25</b>	<b>*</b>	<b>3</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>	<b>0</b>
	Conventional Boiler Use	0	0	0	*	0	0
	CHP and/or Cogeneration Process	--	0	0	0	0	0
	<b>Direct Uses—Total Process</b>	<b>1,306</b>	<b>0</b>	<b>*</b>	<b>24</b>	<b>*</b>	<b>3</b>
	Process Heating	467	0	*	24		3
	Process Cooling and Refrigeration	11	0	0	0	0	0
	Machine Drive	809	0	*	*	*	*
	Electro-Chemical Processes	0	--	--	--	--	--
	Other Process Use	20	0				0
	<b>Direct Uses—Total Nonprocess</b>	<b>65</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>
	Facility HVAC <sup>†</sup>	24	0	*	*	*	0
	Facility Lighting	19	--	--	--	--	--
	Other Facility Support	22	0	0	*	0	0
	Onsite Transportation	*	--	*	0	*	--

Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	0	*	0	*	0
<b>End use not reported</b>	0	0	0	0	*	0

**327420 Gypsum**

<b>Total fuel consumption</b>	2,041	*	*	68	*	0
<b>Indirect Uses—Boiler Fuel</b>	38	*	*	3	0	0
Conventional Boiler Use	38	0	0	1	0	0
CHP and/or Cogeneration Process	--	*	*	2	0	0
<b>Direct Uses—Total Process</b>	1,596	0	*	58	*	0
Process Heating	155	0	--	52	--	0
Process Cooling and Refrigeration	100	0	0	1	0	0
Machine Drive	1,253	0	*	4	*	0
Electro-Chemical Processes	42	--	--	--	--	--
Other Process Use	46	0	*	1	0	0
<b>Direct Uses—Total Nonprocess</b>	407	*	*	6	*	0
Facility HVAC <sup>†</sup>	110	*	*	2	*	0
Facility Lighting	117	--	--	--	--	--
Other Facility Support	68	0	*	1	0	0
Onsite Transportation	75	--	*	1	*	--
Conventional Electricity Generation	--	*	0	1	0	0
Other Nonprocess Use	36	0	0	1	0	0
<b>End use not reported</b>	0	0	0	0	0	0

**327993 Mineral wool**

<b>Total fuel consumption</b>	4,201	0	*	31	*	*
<b>Indirect Uses—Boiler Fuel</b>	15	0	0	*	0	0
Conventional Boiler Use	15	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses—Total Process</b>	3,495	0	*	28	*	*
Process Heating	1,590	0	*	27	*	*
Process Cooling and Refrigeration	265	0	0	*	0	0
Machine Drive	1,572	0	*	1	*	0
Electro-Chemical Processes	17	--	--	--	--	--
Other Process Use	50	0	*	*	0	0
<b>Direct Uses—Total Nonprocess</b>	675	0	*	2	*	0
Facility HVAC <sup>†</sup>	281	0	*	2	*	0
Facility Lighting	269	--	--	--	--	--
Other Facility Support	96	0	0	*	*	0
Onsite Transportation	15	--	*	*	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	14	0	*	0	*	0
<b>End use not reported</b>	16	0	0	0	0	0

<b>331</b>	<b>Primary metals</b>						
	<b>Total fuel consumption</b>	104,372	*	1	603	1	*
	<b>Indirect Uses—Boiler Fuel</b>	594	*	*	72	*	*
	Conventional Boiler Use	594	*	*	18	*	0
	CHP and/or Cogeneration Process	--	*	*	54	*	*
	<b>Direct Uses—Total Process</b>	91,307	0	*	484	*	*
	Process Heating	24,523	0	*	436	*	*
	Process Cooling and Refrigeration	2,079	0	*	3	*	0
	Machine Drive	40,301	0	*	16	*	0
	Electro-Chemical Processes	17,393	--	--	--	--	--
	Other Process Use	7,011	0	*	30	*	*
	<b>Direct Uses—Total Nonprocess</b>	12,378	*	1	47	1	*
	Facility HVAC	4,782	0	*	40	*	*
	Facility Lighting	3,977	--	--	--	--	--
	Other Facility Support	1,400	0	*	4	*	0
	Onsite Transportation	259	--	1	1	*	--
	Conventional Electricity Generation	--	0	*	1	*	0
	Other Nonprocess Use	1,960	*	*	1	*	*
	<b>End use not reported</b>	93	0	*	*	*	*
<b>331110</b>	<b>Iron and steel mills and ferroalloys</b>						
	<b>Total fuel consumption</b>	58,498	*	1	374	*	*
	<b>Indirect Uses—Boiler Fuel</b>	257	*	0	44	*	*
	Conventional Boiler Use	257	*	0	12	0	0
	CHP and/or Cogeneration Process	--	*	0	32	*	*
	<b>Direct Uses—Total Process</b>	51,824	0	*	313	*	*
	Process Heating	16,066	0	*	282	*	*
	Process Cooling and Refrigeration	1,031	0	0	2	*	0
	Machine Drive	D	0	*	4	*	0
	Electro-Chemical Processes	D	--	--	--	--	--
	Other Process Use	4,908	0	*	26	*	*
	<b>Direct Uses—Total Nonprocess</b>	6,417	*	1	18	*	*
	Facility HVAC	2,166	0	*	16	--	0
	Facility Lighting	1,936	--	--	--	--	--
	Other Facility Support	648	0	*	1	*	0
	Onsite Transportation	29	--	1	1	*	--
	Conventional Electricity Generation	--	0	*	0	*	0
	Other Nonprocess Use	1,638	*	*	*	*	*
	<b>End use not reported</b>	0	0	*	0	*	*
<b>3312</b>	<b>Steel products from purchased steel</b>						

<b>Total fuel consumption</b>	5,640	0	*	31	*	0
<b>Indirect Uses—Boiler Fuel</b>	186	0	0	3	*	0
Conventional Boiler Use	186	0	0	2	0	0
CHP and/or Cogeneration Process	--	0	0	2	*	0
<b>Direct Uses—Total Process</b>	4,374	0	*	22	*	0
Process Heating	673	0	0	21	*	0
Process Cooling and Refrigeration	188	0	0	1	*	0
Machine Drive	3,162	0	*	1	*	0
Electro-Chemical Processes	28	--	--	--	--	--
Other Process Use	323	0	*	0	*	0
<b>Direct Uses—Total Nonprocess</b>	1,058	0	*	6	*	0
Facility HVAC	509	0	--	5	--	0
Facility Lighting	402	--	--	--	--	--
Other Facility Support	123	0	*	1	*	0
Onsite Transportation	11	--	*	*	*	--
Conventional Electricity Generation	--	0	*	--	0	0
Other Nonprocess Use	14	0	*	1	0	0
<b>End use not reported</b>	Q	0	*	0	*	0

**3313 Alumina and aluminum production and processing**

<b>Total fuel consumption</b>	20,272	0	*	114	*	0
<b>Indirect Uses—Boiler Fuel</b>	37	0	0	13	*	0
Conventional Boiler Use	37	0	0	1	0	0
CHP and/or Cogeneration Process	--	0	0	12	*	0
<b>Direct Uses—Total Process</b>	18,227	0	*	93	*	0
Process Heating	1,102	0	0	85	*	0
Process Cooling and Refrigeration	314	0	0	*	*	0
Machine Drive	D	0	*	5	*	0
Electro-Chemical Processes	D	--	--	--	--	--
Other Process Use	247	0	*	2	*	0
<b>Direct Uses—Total Nonprocess</b>	2,004	0	*	8	*	0
Facility HVAC	654	0	*	6	*	0
Facility Lighting	764	--	--	--	--	--
Other Facility Support	331	0	0	2	*	0
Onsite Transportation	118	--	*	*	--	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	137	0	*	*	*	0
<b>End use not reported</b>	Q	0	0	*	*	0

**331314 Secondary smelting and alloying of aluminum**

<b>Total fuel consumption</b>	565	0	*	19	*	0
<b>Indirect Uses—Boiler Fuel</b>	0	0	0	*	0	0

Conventional Boiler Use	0	0	0	0	0	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses—Total Process</b>	<b>461</b>	<b>0</b>	<b>*</b>	<b>18</b>	<b>*</b>	<b>0</b>
Process Heating	78	0	0	15	*	0
Process Cooling and Refrigeration	14	0	0	*	0	0
Machine Drive	348	0	*	2	*	0
Electro-Chemical Processes	3	--	--	--	--	--
Other Process Use	17	0	0	*	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>105</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>
Facility HVAC <sup>f</sup>	46	0	0	1	*	0
Facility Lighting	37	--	--	--	--	--
Other Facility Support	13	0	0	*	0	0
Onsite Transportation	1	--	--	--	--	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	8	0	0	0	0	0
<b>End use not reported</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**331315 Aluminum sheet, plate and foils**

<b>Total fuel consumption</b>	<b>6,382</b>	<b>0</b>	<b>*</b>	<b>60</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	24	0	0	1	0	0
CHP and/or Cogeneration Process	--	0	0	1	*	0
<b>Direct Uses—Total Process</b>	<b>5,153</b>	<b>0</b>	<b>*</b>	<b>53</b>	<b>*</b>	<b>0</b>
Process Heating	738	0	0	52	*	0
Process Cooling and Refrigeration	215	0	0	*	0	0
Machine Drive	4,103	0	*	1	0	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	98	0	0	*	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>1,204</b>	<b>0</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Facility HVAC <sup>f</sup>	367	0	*	3	*	0
Facility Lighting	466	--	--	--	--	--
Other Facility Support	234	0	0	1	0	0
Onsite Transportation	72	--	*	*	*	--
Conventional Electricity Generation	--	0	0	*	0	0
Other Nonprocess Use	66	0	*	*	*	0
<b>End use not reported</b>	<b>*</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>	<b>0</b>

**331318 Other aluminum rolling, drawing and extruding**

<b>Total fuel consumption</b>	<b>2,082</b>	<b>0</b>	<b>*</b>	<b>18</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>D</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	13	0	0	*	0	0
CHP and/or Cogeneration Process	--	0	0	D	*	0
<b>Direct Uses—Total Process</b>	<b>1,737</b>	<b>0</b>	<b>*</b>	<b>D</b>	<b>*</b>	<b>0</b>

Process Heating	285	0	0	D	*	0
Process Cooling and Refrigeration	83	0	0	*	*	0
Machine Drive	1,198	0	0	2	*	0
Electro-Chemical Processes	40	--	--	--	--	--
Other Process Use	132	0	*	1	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>328</b>	<b>0</b>	<b>*</b>	<b>D</b>	<b>*</b>	<b>0</b>
Facility HVAC	136	0	0	D	*	0
Facility Lighting	125	--	--	--	--	--
Other Facility Support	62	0	0	*	*	0
Onsite Transportation	5	--	*	*	*	--
Conventional Electricity Generation	--	0	0	0	0	0
Other Nonprocess Use	*	0	0	0	*	0
<b>End use not reported</b>	<b>Q</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>0</b>

**3314 Nonferrous metal (except aluminum) production and processing**

<b>Total fuel consumption</b>	<b>10,069</b>	<b>0</b>	<b>*</b>	<b>42</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>76</b>	<b>0</b>	<b>*</b>	<b>9</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	76	0	*	2	*	0
CHP and/or Cogeneration Process	--	0	*	7	*	0
<b>Direct Uses—Total Process</b>	<b>8,740</b>	<b>0</b>	<b>*</b>	<b>27</b>	<b>*</b>	<b>0</b>
Process Heating	3,017	0	*	23	*	0
Process Cooling and Refrigeration	332	0	*	*	0	0
Machine Drive	3,345	0	*	3	*	0
Electro-Chemical Processes	1,188	--	--	--	--	--
Other Process Use	856	0	*	1	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>1,205</b>	<b>0</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Facility HVAC	694	0	*	4	*	0
Facility Lighting	342	--	--	--	--	--
Other Facility Support	125	0	0	*	*	0
Onsite Transportation	25	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	19	0	*	*	*	0
<b>End use not reported</b>	<b>48</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>0</b>

**331410 Nonferrous metal (except aluminum) smelting and refining**

<b>Total fuel consumption</b>	<b>4,694</b>	<b>0</b>	<b>*</b>	<b>13</b>	<b>*</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>24</b>	<b>0</b>	<b>*</b>	<b>6</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	24	0	*	1	0	0
CHP and/or Cogeneration Process	--	0	*	5	*	0
<b>Direct Uses—Total Process</b>	<b>4,373</b>	<b>0</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Process Heating	1,886	0	*	4	*	0
Process Cooling and Refrigeration	157	0	0	*	0	0
Machine Drive	722	0	*	*	*	0

Electro-Chemical Processes	1,084	--	--	--	--	--
Other Process Use	524	0	*	1	*	0
<b>Direct Uses—Total Nonprocess</b>	295	0	*	2	*	0
Facility HVAC	154	0	0	1	*	0
Facility Lighting	94	--	--	--	--	--
Other Facility Support	44	0	0	*	*	0
Onsite Transportation	1	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	0	0	0	0	0	0
<b>End use not reported</b>	2	0	0	*	*	0

### 3315 Foundries

<b>Total fuel consumption</b>	9,892	0	*	41	*	*
<b>Indirect Uses—Boiler Fuel</b>	38	0	*	2	*	0
Conventional Boiler Use	38	0	0	1		0
CHP and/or Cogeneration Process	--	0	*	2	*	0
<b>Direct Uses—Total Process</b>	8,143	0	*	29	*	0
Process Heating	3,666	0	*	25	*	0
Process Cooling and Refrigeration	213	0	0	*	*	0
Machine Drive	3,563	0	*	4	*	0
Electro-Chemical Processes	24	--	--	--	--	--
Other Process Use	677	0	*	*	*	0
<b>Direct Uses—Total Nonprocess</b>	1,692	0	*	10	*	*
Facility HVAC	759	0	*	9	*	*
Facility Lighting	533	--	--	--	--	--
Other Facility Support	172	0	*	1	*	0
Onsite Transportation	76	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	152	0	*	*	*	0
<b>End use not reported</b>	20	0	*	*	*	0

### 331511 Iron foundries

<b>Total fuel consumption</b>	4,768	0	*	11	*	*
<b>Indirect Uses—Boiler Fuel</b>	Q	0	*	*		0
Conventional Boiler Use	Q	0	0	*	*	0
CHP and/or Cogeneration Process	--	0	*	*	*	0
<b>Direct Uses—Total Process</b>	4,169	0	*	7	*	0
Process Heating	2,125	0	0	5		0
Process Cooling and Refrigeration	47	0	0	0	*	0
Machine Drive	1,772	0	*	1	*	0
Electro-Chemical Processes	Q	--	--	--	--	--
Other Process Use	218	0	*	*	*	0
<b>Direct Uses—Total Nonprocess</b>	589	0	*	4	*	*



Facility HVAC <sup>f</sup>	281	0	*	4	*	*
Facility Lighting	210	--	--	--	--	--
Other Facility Support	72	0	*	*	*	0
Onsite Transportation	25	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	2	0	0	*	*	0
End use not reported	*	0	*	0	*	0

### 331523 Nonferrous metal die-casting foundries

<b>Total fuel consumption</b>	2,032	0	*	15	*	0
<b>Indirect Uses—Boiler Fuel</b>	13	0	0	1	*	0
Conventional Boiler Use	13	0	0	*	*	0
CHP and/or Cogeneration Process	--	0	0	1	*	0
<b>Direct Uses—Total Process</b>	1,467	0	*	12	*	0
Process Heating	446	0	0	10	*	0
Process Cooling and Refrigeration	47	0	0	*	*	0
Machine Drive	919	0	*	1	*	0
Electro-Chemical Processes	2	--	--	--	--	--
Other Process Use	52	0	*	*	*	0
<b>Direct Uses—Total Nonprocess</b>	552	0	*	3	*	0
Facility HVAC <sup>f</sup>	226	0	0	2	*	0
Facility Lighting	168	--	--	--	--	--
Other Facility Support	40	0	0	*	*	0
Onsite Transportation	37	--	*	*	*	*
Conventional Electricity Generation	--	0	0	*	0	0
Other Nonprocess Use	81	0	0	*	*	0
End use not reported	0	0	0	0	*	0

### 331524 Aluminum foundries, except die-casting

<b>Total fuel consumption</b>	570	0	*	4	*	0
<b>Indirect Uses—Boiler Fuel</b>	5	0	0	*	*	0
Conventional Boiler Use	5	0	0	*	*	0
CHP and/or Cogeneration Process	--	0	0	*	0	0
<b>Direct Uses—Total Process</b>	412	0	*	3	*	0
Process Heating	138	0	*	3	*	0
Process Cooling and Refrigeration	19	0	0	*	0	0
Machine Drive	237	0	*	*	*	0
Electro-Chemical Processes	Q	--	--	--	--	--
Other Process Use	17	0	0	*	*	0
<b>Direct Uses—Total Nonprocess</b>	152	0	*	1	*	0
Facility HVAC <sup>f</sup>	72	0	*	1	*	0
Facility Lighting	49	--	--	--	--	--
Other Facility Support	22	0	0	*	0	0

Onsite Transportation	4	--	*	0	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	Q	0	0	*	0	0
<b>End use not reported</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

### 332 Fabricated metal products

<b>Total fuel consumption</b>	<b>42,069</b>	<b>*</b>	<b>*</b>	<b>265</b>	<b>1</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>155</b>	<b>*</b>	<b>0</b>	<b>49</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	155	0	0	Q	*	0
CHP and/or Cogeneration Process	--	*	0	Q	*	0
<b>Direct Uses—Total Process</b>	<b>29,234</b>	<b>*</b>	<b>*</b>	<b>173</b>	<b>*</b>	<b>0</b>
Process Heating	6,466	0	*	169	*	0
Process Cooling and Refrigeration	922	0	0	*	0	0
Machine Drive	19,312	*	*	3	*	0
Electro-Chemical Processes	782	--	--	--	--	--
Other Process Use	1,751	0	*	Q	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>11,311</b>	<b>*</b>	<b>*</b>	<b>42</b>	<b>1</b>	<b>0</b>
Facility HVAC	6,016	*	*	39	*	0
Facility Lighting	3,637	--	--	--	--	--
Other Facility Support	1,269	0	0	3	*	0
Onsite Transportation	311	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	Q	0	*	*	*	0
<b>End use not reported</b>	<b>1,369</b>	<b>0</b>	<b>0</b>	<b>Q</b>	<b>*</b>	<b>0</b>

### 333 Machinery

<b>Total fuel consumption</b>	<b>22,442</b>	<b>0</b>	<b>1</b>	<b>58</b>	<b>1</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>143</b>	<b>0</b>	<b>*</b>	<b>5</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	143	0	0	2	0	0
CHP and/or Cogeneration Process	--	0	*	3	*	0
<b>Direct Uses—Total Process</b>	<b>12,278</b>	<b>0</b>	<b>Q</b>	<b>24</b>	<b>*</b>	<b>0</b>
Process Heating	1,178	0	*	19	*	0
Process Cooling and Refrigeration	775	0	*	Q	0	0
Machine Drive	9,198	0	*	3	--	0
Electro-Chemical Processes	66	--	--	--	--	--
Other Process Use	1,062	0	Q	1	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>8,578</b>	<b>0</b>	<b>*</b>	<b>27</b>	<b>1</b>	<b>0</b>
Facility HVAC	4,481	0	*	24	*	0
Facility Lighting	2,140	--	--	--	--	--
Other Facility Support	1,025	0	*	1	*	0
Onsite Transportation	Q	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	Q	0	*	Q	*	0

	End use not reported	1,442	0	*	Q	*	0
334	Computer and electronic products						
	Total fuel consumption	28,801	*	*	31	*	0
	Indirect Uses—Boiler Fuel	222	0	*	8	*	0
	Conventional Boiler Use	222	0	*	4	*	0
	CHP and/or Cogeneration Process	--	0	*	4	0	0
	Direct Uses—Total Process	17,571	*	*	7	*	0
	Process Heating	1,660	0	*	4	*	0
	Process Cooling and Refrigeration	3,677	0	*	*	0	0
	Machine Drive	5,991	0		Q	0	0
	Electro-Chemical Processes	389	--	--	--	--	--
	Other Process Use	Q	*	*	1	*	0
	Direct Uses—Total Nonprocess	10,652	0	*	16	*	0
	Facility HVAC	6,459	0	*	12	*	0
	Facility Lighting	2,223	--	--	--	--	--
	Other Facility Support	1,461	0	*	1	*	0
	Onsite Transportation	101	--	*	0	*	--
	Conventional Electricity Generation	--	0	*	1	0	0
	Other Nonprocess Use	407	0	*	Q	*	0
	End use not reported	355	0	0	*	*	0
334413	Semiconductors and related devices						
	Total fuel consumption	14,215	*	*	18	*	0
	Indirect Uses—Boiler Fuel	100	0	*	5	*	0
	Conventional Boiler Use	100	0	*	3	*	0
	CHP and/or Cogeneration Process	--	0	*	2	0	0
	Direct Uses—Total Process	9,677	*	*	4	*	0
	Process Heating	1,113	0	*	2	*	0
	Process Cooling and Refrigeration	2,428	0	*	*	0	0
	Machine Drive	3,285	0	*	*	0	0
	Electro-Chemical Processes	320	--	--	--	--	--
	Other Process Use	2,532	*	*	1	*	0
	Direct Uses—Total Nonprocess	4,427	0		8		0
	Facility HVAC	2,971	0	*	6	*	0
	Facility Lighting	628	--	--	--	--	--
	Other Facility Support	618	0	*	*	*	0
	Onsite Transportation	19	--	*	0		--
	Conventional Electricity Generation	--	0	*	1	0	0
	Other Nonprocess Use	190	0	*	*	0	0
	End use not reported	Q	0	0	*	0	0
335	Electrical equip., appliances, and components						

	2011	2012	2013	2014	2015
<b>Total fuel consumption</b>	<b>11,790</b>	<b>0</b>	<b>*</b>	<b>35</b>	<b>*</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>72</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>
Conventional Boiler Use	72	0	0	5	0
CHP and/or Cogeneration Process	--	0	0	*	0
<b>Direct Uses—Total Process</b>	<b>7,603</b>	<b>0</b>	<b>*</b>	<b>18</b>	<b>*</b>
Process Heating	1,482	0	0	15	0
Process Cooling and Refrigeration	375	0	*	*	0
Machine Drive	4,382	0	*	2	*
Electro-Chemical Processes	984	--	--	--	--
Other Process Use	380	0	*	Q	0
<b>Direct Uses—Total Nonprocess</b>	<b>3,604</b>	<b>0</b>	<b>*</b>	<b>11</b>	<b>*</b>
Facility HVAC <sup>C</sup>	2,012	0	*	10	*
Facility Lighting	893	--	--	--	--
Other Facility Support	239	0	0	1	0
Onsite Transportation	188	--	*	0	*
Conventional Electricity Generation	--	0	*	0	*
Other Nonprocess Use	Q	0	*	*	*
<b>End use not reported</b>	<b>511</b>	<b>0</b>	<b>0</b>	<b>Q</b>	<b>*</b>

## 336 Transportation equipment

<b>Total fuel consumption</b>	<b>47,451</b>	<b>*</b>	<b>*</b>	<b>126</b>	<b>1</b>	<b>0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>389</b>	<b>0</b>	<b>*</b>	<b>19</b>	<b>*</b>	<b>0</b>
Conventional Boiler Use	389	0	*	10	*	0
CHP and/or Cogeneration Process	--	0	*	9	*	0
<b>Direct Uses—Total Process</b>	<b>28,175</b>	<b>0</b>	<b>*</b>	<b>53</b>	<b>*</b>	<b>0</b>
Process Heating	3,401	0	*	48	*	0
Process Cooling and Refrigeration	2,663	0	0	*	*	0
Machine Drive	19,836	0	*	Q	*	0
Electro-Chemical Processes	380	--	--	--	--	--
Other Process Use	1,894	0	*	3	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>17,492</b>	<b>*</b>	<b>*</b>	<b>52</b>	<b>1</b>	<b>0</b>
Facility HVAC	9,218	*	*	48	*	0
Facility Lighting	5,908	--	--	--	--	--
Other Facility Support	1,499	0	*	3	*	0
<b>Onsite Transportation</b>	<b>694</b>	<b>--</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>--</b>
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	173	0	*	1	*	0
<b>End use not reported</b>	<b>1,396</b>	<b>0</b>	<b>*</b>	<b>1</b>	<b>*</b>	<b>0</b>

**336110 Automobile and light duty motor vehicle manufacturing**

<b>Total fuel consumption</b>	<b>8,124</b>	<b>0</b>	<b>*</b>	<b>39</b>	<b>*</b>	<b>0</b>
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	<b>Indirect Uses—Boiler Fuel</b>	198	0	0	4	0	0
	Conventional Boiler Use	198	0	0	3	0	0
	CHP and/or Cogeneration Process	--	0	0	1	0	0
	<b>Direct Uses—Total Process</b>	5,099	0	*	24	*	0
	Process Heating	204	0	0	23	*	0
	Process Cooling and Refrigeration	603	0	0	*	0	0
	Machine Drive	3,778	0	*	*	0	0
	Electro-Chemical Processes	71	--	--	--	--	--
	Other Process Use	444	0	*	1	*	0
	<b>Direct Uses—Total Nonprocess</b>	2,687	0	*	10	*	0
	Facility HVAC	1,672	0	0	10	*	0
	Facility Lighting	669	--	--	--	--	--
	Other Facility Support	180	0			0	0
	Onsite Transportation	139	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	0	0
	Other Nonprocess Use	26	0	*	0	*	0
	<b>End use not reported</b>	141	0	*	1	0	0
<b>3364</b>	<b>Aerospace product and parts</b>						
	<b>Total fuel consumption</b>	9,857	0	*	26	*	0
	<b>Indirect Uses—Boiler Fuel</b>	127	0	*	8	*	0
	Conventional Boiler Use	127	0	*	4	*	0
	CHP and/or Cogeneration Process	--	0	*	5	*	0
	<b>Direct Uses—Total Process</b>	5,328	0	*	7	*	0
	Process Heating	1,159	0	*	6	*	0
	Process Cooling and Refrigeration	952	0	0	*	*	0
	Machine Drive	2,788	0	*	*	*	0
	Electro-Chemical Processes	85	--	--	--	--	--
	Other Process Use	343	0	*	1	*	0
	<b>Direct Uses—Total Nonprocess</b>	4,301	0	*	10	*	0
	Facility HVAC	2,255	0	*	9	*	0
	Facility Lighting	1,466	--	--	--	--	--
	Other Facility Support	425	0	*	1	*	0
	Onsite Transportation	124	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	*	0
	Other Nonprocess Use	31	0	*	1	*	0
	<b>End use not reported</b>	101	0	0	*	*	0
<b>336411</b>	<b>Aircraft</b>						
	<b>Total fuel consumption</b>	2,717	0	*	8	*	0
	<b>Indirect Uses—Boiler Fuel</b>	15	0	*	3	0	0
	Conventional Boiler Use	15	0	*	2	0	0
	CHP and/or Cogeneration Process	--	0	*	2	0	0

	<b>Direct Uses—Total Process</b>	1,109	0	*	2	*	0
	Process Heating	147	0	*	2	*	0
	Process Cooling and Refrigeration	220	0	0	*	*	0
	Machine Drive	644	0	*	*	*	0
	Electro-Chemical Processes	22	--	--	--	--	--
	Other Process Use	76	0	0	*	0	0
	<b>Direct Uses—Total Nonprocess</b>	1,572	0	*	2	*	0
	Facility HVAC	792	0	0	2	*	0
	Facility Lighting	522	--	--	--	--	--
	Other Facility Support	197	0	*	*	*	0
	Onsite Transportation	61	--	*	*	*	--
	Conventional Electricity Generation	--	0	*	*	*	0
	Other Nonprocess Use	*	0	--	--	--	0
	<b>End use not reported</b>	Q	0	0	0	*	0
<b>337</b>	<b>Furniture and related products</b>						
	<b>Total fuel consumption</b>	Q	0	*	13	*	*
	<b>Indirect Uses—Boiler Fuel</b>	37	0	0	1	*	0
	Conventional Boiler Use	37	0	0	*	0	0
	CHP and/or Cogeneration Process	--	0	0	*	*	0
	<b>Direct Uses—Total Process</b>	4,332	0	*	5	*	0
	Process Heating	112	0	0	5	*	0
	Process Cooling and Refrigeration	Q	0	0	*	0	0
	Machine Drive	3,659	0	*	*	*	0
	Electro-Chemical Processes	12	--	--	--	--	--
	Other Process Use	Q	0	0	0	*	0
	<b>Direct Uses—Total Nonprocess</b>	Q	0	*	6	*	*
	Facility HVAC	Q	0	0	6	*	*
	Facility Lighting	Q	--	--	--	--	--
	Other Facility Support	Q	0	0	*	*	0
	Onsite Transportation	Q	--	*	*	*	--
	Conventional Electricity Generation	--	0	0	*	*	0
	Other Nonprocess Use	Q	0	*	0	0	0
	<b>End use not reported</b>	332	0	*	Q	*	0
<b>339</b>	<b>Miscellaneous</b>						
	<b>Total fuel consumption</b>	9,782	0	*	23	*	0
	<b>Indirect Uses—Boiler Fuel</b>	81	0	0	3	0	0
	Conventional Boiler Use	81	0	0	*	0	0
	CHP and/or Cogeneration Process	--	0	0	3	0	0
	<b>Direct Uses—Total Process</b>	5,343	0	*	10	*	0
	Process Heating	423	0	0	9	*	0
	Process Cooling and Refrigeration	690	0	0	*	*	0

Machine Drive	3,464	0	*	*	*	0
Electro-Chemical Processes	Q	--	--	--	--	--
Other Process Use	734	0	0	*	*	0
<b>Direct Uses—Total Nonprocess</b>	<b>4,184</b>	<b>0</b>	<b>*</b>	<b>10</b>	<b>*</b>	<b>0</b>
Facility HVAC <sup>f</sup>	2,607	0	*	9	*	0
Facility Lighting	1,046	--	--	--	--	--
Other Facility Support	400	0	0	1	*	0
Onsite Transportation	Q	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	41	0	*	*	0	0
<b>End use not reported</b>	<b>Q</b>	<b>0</b>	<b>0</b>	<b>*</b>	<b>*</b>	<b>0</b>

Data source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, *2022 Manufacturing Energy Consumption Survey*

Notes: Totals may not equal sum of components because of independent rounding. The estimates presented in this table are for the total consumption of energy (formerly total inputs of energy) for the production of heat, power, and electricity generation, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy or were extracted from captive (onsite) mines or wells. CHP is defined as combined heat and power.

Allocations to specific end uses are made based on reasonable approximations by respondents.

<sup>a</sup> The Bureau of the Census classifies establishments using the 2022 North American Industry Classification System (NAICS).

<sup>b</sup> *Net demand for electricity* is the sum of purchases, transfers in, and total onsite electricity generation, minus sales and transfers offsite. It is the total amount of electricity used by establishments. *Net demand for electricity* is not directly comparable with *net electricity*, which specifically excludes electricity generated onsite by combustible energy sources.

<sup>c</sup> *Distillate fuel oil* includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

<sup>d</sup> *Natural gas* includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

<sup>e</sup> Hydrocarbon Gas Liquids (*HGL*) include ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas liquids (NGL).

<sup>f</sup> Facility heating, ventilation, and air conditioning (*facility HVAC*) excludes steam and hot water.

\* Estimate less than 0.5.

D=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because relative standard error (RSE) is greater than 50%.

NA=Not available.

-- Estimation is not applicable.

S=Negative value.

*The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure protection of the confidential source data (Project No. 7504703, Disclosure Review Board (DRB) approval number: CBDRB-FY25-0054).*

Released: August 2025  
Next MECS will be fielded in 2027

**RSE Table 5.3 Relative standard errors for table 5.3**

Unit: Percentage

NAICS code <sup>a</sup>	End use	Net demand for electricity <sup>b</sup>	Residual fuel oil	Distillate fuel oil and diesel fuel <sup>c</sup>	Natural gas <sup>d</sup>	HGL (excluding natural gasoline) <sup>e</sup>	Coal (excluding coal coke and breeze)
Total United States							
<b>311 - 339</b>	<b>All manufacturing industries</b>						
	<b>Total fuel consumption</b>	2.6	3.5	7.0	2.2	4.1	5.1
	<b>Indirect Uses—Boiler Fuel</b>	7.4	3.5	11.2	3.3	9.3	0.3
	Conventional Boiler Use	7.4	10.7	6.4	1.9	17.4	0.0
	CHP and/or Cogeneration Process	--	1.8	14.0	4.6	6.2	0.3
	<b>Direct Uses—Total Process</b>	2.5	13.2	17.6	2.1	3.8	9.1
	Process Heating	4.1	13.4	6.4	2.5	4.0	10.0
	Process Cooling and Refrigeration	2.9	68.9	75.5	12.2	41.3	1.7
	Machine Drive	3.2	55.2	17.6	3.7	19.9	0.3
	Electro-Chemical Processes	1.1	--	--	--	--	--
	Other Process Use	11.7	0.0	39.4	1.7	5.9	0.0
	<b>Direct Uses—Total Nonprocess</b>	3.9	6.7	6.2	3.9	7.3	0.6
	Facility HVAC <sup>f</sup>	3.8	71.5	23.3	4.8	20.0	2.3
	Facility Lighting	5.2	--	--	--	--	--
	Other Facility Support	3.3	0.0	22.2	5.7	40.5	0.0
	Onsite Transportation	14.3	--	5.9	6.0	7.1	--
	Conventional Electricity Generation	--	0.0	31.3	1.2	52.8	0.0
	Other Nonprocess Use	6.3	0.0	27.4	7.7	29.6	0.4
	<b>End use not reported</b>	21.9	0.0	28.0	9.8	35.2	0.0
<b>311</b>	<b>Food</b>						
	<b>Total fuel consumption</b>	2.9	40.5	20.2	3.5	36.4	0.0
	<b>Indirect Uses—Boiler Fuel</b>	6.5	51.3	28.9	2.6	40.7	0.0
	Conventional Boiler Use	6.5	3.7	10.6	3.8	54.3	0.0
	CHP and/or Cogeneration Process	--	61.3	34.5	3.4	25.1	0.0
	<b>Direct Uses—Total Process</b>	3.1	3.7	69.3	6.6	49.5	0.0
	Process Heating	9.9	0.0	30.0	6.2	56.8	0.0
	Process Cooling and Refrigeration	4.1	19.6	77.8	36.4	56.9	X



	Machine Drive	4.0	19.6	73.5	23.9	36.9	0.0
	Electro-Chemical Processes	5.8	--	--	--	--	--
	Other Process Use	17.1	X	0.3	21.6	54.9	X
	<b>Direct Uses—Total Nonprocess</b>	4.2	8.8	16.3	12.2	18.1	X
	Facility HVAC	5.7	8.8	38.9	16.6	25.7	X
	Facility Lighting	4.4	--	--	--	--	--
	Other Facility Support	5.7	X	40.4	12.3	35.0	X
	Onsite Transportation	5.5	--	13.0	12.3	21.9	--
	Conventional Electricity Generation	--	X	45.8	33.2	0.0	X
	Other Nonprocess Use	14.6	X	40.1	18.1	2.4	X
	<b>End use not reported</b>	19.9	X	77.3	18.3	47.4	0.0
<b>3112</b>	<b>Grain and oilseed milling</b>						
	<b>Total fuel consumption</b>	2.4	15.6	6.0	4.1	16.5	0.0
	<b>Indirect Uses—Boiler Fuel</b>	2.8	65.8	4.6	3.6	0.0	0.0
	Conventional Boiler Use	2.8	65.8	4.6	6.4	X	0.0
	CHP and/or Cogeneration Process	--	X	X	2.5	0.0	0.0
	<b>Direct Uses—Total Process</b>	2.4	0.0	2.7	8.8	26.4	X
	Process Heating	25.4	0.0	75.9	9.3	41.1	X
	Process Cooling and Refrigeration	1.5	X	X	0.0	X	X
	Machine Drive	2.4	X	0.4	12.8	6.7	X
	Electro-Chemical Processes	0.1	--	--	--	--	--
	Other Process Use	16.1	X	X	21.8	0.0	X
	<b>Direct Uses—Total Nonprocess</b>	4.8	41.7	8.0	6.2	20.6	X
	Facility HVAC	6.5	41.7	0.0	7.4	12.4	X
	Facility Lighting	3.4	--	--	--	--	--
	Other Facility Support	8.6	X	0.0	10.2	0.0	X
	Onsite Transportation	16.5	--	4.4	5.1	24.0	--
	Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
	Other Nonprocess Use	0.0	X	53.3	X	3.5	X
	<b>End use not reported</b>	24.8	X	X	16.3	67.8	0.0
<b>311221</b>	<b>Wet corn milling and starch manufacturing</b>						
	<b>Total fuel consumption</b>	0.0	X	0.0	0.0	0.0	0.0
	<b>Indirect Uses—Boiler Fuel</b>	0.0	X	X	0.0	X	0.0
	Conventional Boiler Use	0.0	X	X	0.0	X	X
	CHP and/or Cogeneration Process	--	X	X	0.0	X	0.0
	<b>Direct Uses—Total Process</b>	0.0	X	0.0	0.0	0.0	X
	Process Heating	0.0	X	0.0	0.0	0.0	X
	Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
	Machine Drive	0.0	X	0.0	X	0.0	X

Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	X	X	X	0.0	X	X
<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC <sup>C</sup>	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	X	X	0.0	X	0.0	X
<b>End use not reported</b>	X	X	X	X	X	0.0

**31131 Sugar manufacturing**

<b>Total fuel consumption</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>Indirect Uses—Boiler Fuel</b>	0.0	0.0	0.0	0.0	X	0.0
Conventional Boiler Use	0.0	0.0	X	0.0	X	0.0
CHP and/or Cogeneration Process	--	X	0.0	0.0	X	0.0
<b>Direct Uses—Total Process</b>	0.0	X	0.0	0.0	0.0	0.0
Process Heating	0.0	X	X	0.0	X	0.0
Process Cooling and Refrigeration	0.0	X	X	X	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	0.0
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	X	X	X
<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC <sup>C</sup>	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	X	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
Other Nonprocess Use	0.0	X	X	X	0.0	X
<b>End use not reported</b>	X	X	X	X	X	X

**3114 Fruit and vegetable preserving and specialty foods**

<b>Total fuel consumption</b>	3.0	0.0	7.6	3.0	11.7	X
<b>Indirect Uses—Boiler Fuel</b>	7.0	X	0.0	3.7	18.7	X
Conventional Boiler Use	7.0	X	0.0	10.0	26.4	X
CHP and/or Cogeneration Process	--	X	0.0	3.5	14.8	X
<b>Direct Uses—Total Process</b>	3.2	0.0	22.0	6.0	4.3	X
Process Heating	8.3	0.0	X	6.8	0.0	X
Process Cooling and Refrigeration	3.9	X	47.0	24.0	69.5	X
Machine Drive	3.9	X	21.9	38.8	15.2	X
Electro-Chemical Processes	38.0	--	--	--	--	--

Other Process Use	16.9	X	86.6	0.1	0.0	X
<b>Direct Uses—Total Nonprocess</b>	<b>3.7</b>	<b>0.0</b>	<b>4.9</b>	<b>4.9</b>	<b>22.7</b>	<b>X</b>
Facility HVAC <sup>C</sup>	4.3	0.0	53.5	6.2	15.9	X
Facility Lighting	4.2	--	--	--	--	--
Other Facility Support	6.1	X	0.0	5.5	2.5	X
Onsite Transportation	6.4	--	5.1	14.2	23.6	--
Conventional Electricity Generation	--	X	0.0	39.7	X	X
Other Nonprocess Use	0.0	X	0.6	0.0	0.0	X
<b>End use not reported</b>	<b>38.6</b>	<b>X</b>	<b>69.1</b>	<b>38.7</b>	<b>50.5</b>	<b>X</b>

**3115 Dairy product manufacturing**

<b>Total fuel consumption</b>	<b>3.9</b>	<b>74.0</b>	<b>21.3</b>	<b>3.4</b>	<b>77.0</b>	<b>X</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>8.9</b>	<b>79.2</b>	<b>23.8</b>	<b>4.0</b>	<b>71.8</b>	<b>X</b>
Conventional Boiler Use	8.9	X	0.0	2.5	91.5	X
CHP and/or Cogeneration Process	--	79.2	29.3	5.8	24.1	X
<b>Direct Uses—Total Process</b>	<b>4.4</b>	<b>19.6</b>	<b>26.2</b>	<b>6.7</b>	<b>88.9</b>	<b>X</b>
Process Heating	9.6	X	61.6	6.5	96.7	X
Process Cooling and Refrigeration	5.6	19.6	46.2	7.6	X	X
Machine Drive	4.9	19.6	12.0	33.0	11.6	X
Electro-Chemical Processes	18.5	--	--	--	--	--
Other Process Use	21.4	X	1.4	17.3	32.6	X
<b>Direct Uses—Total Nonprocess</b>	<b>4.2</b>	<b>19.6</b>	<b>23.7</b>	<b>6.1</b>	<b>8.9</b>	<b>X</b>
Facility HVAC <sup>C</sup>	4.3	19.6	64.9	7.0	14.8	X
Facility Lighting	4.6	--	--	--	--	--
Other Facility Support	7.5	X	X	7.1	2.8	X
Onsite Transportation	9.4	--	27.4	54.6	10.4	--
Conventional Electricity Generation	--	X	49.1	80.9	X	X
Other Nonprocess Use	27.1	X	1.7	12.9	2.4	X
<b>End use not reported</b>	<b>47.7</b>	<b>X</b>	<b>X</b>	<b>72.6</b>	<b>1.3</b>	<b>X</b>

**3116 Animal slaughtering and processing**

<b>Total fuel consumption</b>	<b>4.0</b>	<b>0.0</b>	<b>5.1</b>	<b>5.0</b>	<b>25.5</b>	<b>X</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>8.9</b>	<b>0.0</b>	<b>0.9</b>	<b>7.2</b>	<b>31.6</b>	<b>X</b>
Conventional Boiler Use	8.9	X	3.8	6.1	40.3	X
CHP and/or Cogeneration Process	--	0.0	0.6	9.7	48.7	X
<b>Direct Uses—Total Process</b>	<b>4.3</b>	<b>X</b>	<b>60.7</b>	<b>6.6</b>	<b>60.2</b>	<b>X</b>
Process Heating	9.2	X	39.2	7.2	69.1	X
Process Cooling and Refrigeration	6.0	X	78.6	10.1	94.3	X
Machine Drive	3.9	X	0.0	30.4	57.7	X
Electro-Chemical Processes	4.1	--	--	--	--	--
Other Process Use	38.3	X	0.0	10.3	80.0	X

	<b>Direct Uses—Total Nonprocess</b>	4.8	X	8.4	10.1	19.6	X
	Facility HVAC <sup>f</sup>	5.3	X	X	6.0	26.3	X
	Facility Lighting	6.5	--	--	--	--	--
	Other Facility Support	4.6	X	0.0	18.2	39.5	X
	Onsite Transportation	9.2	--	9.4	28.1	25.9	--
	Conventional Electricity Generation	--	X	49.1	14.5	X	X
	Other Nonprocess Use	40.6	X	7.3	62.5	13.8	X
	<b>End use not reported</b>	19.9	X	30.3	21.8	71.7	X
<b>312</b>	<b>Beverage and tobacco products</b>						
	<b>Total fuel consumption</b>	17.6	X	22.2	49.8	9.8	0.0
	<b>Indirect Uses—Boiler Fuel</b>	34.1	X	44.0	57.1	24.8	0.0
	Conventional Boiler Use	34.1	X	5.3	10.2	14.3	X
	CHP and/or Cogeneration Process	--	X	81.4	64.2	31.0	0.0
	<b>Direct Uses—Total Process</b>	18.7	X	33.1	36.9	21.3	X
	Process Heating	35.6	X	2.6	39.5	33.1	X
	Process Cooling and Refrigeration	11.0	X	97.4	39.2	68.5	X
	Machine Drive	22.9	X	10.1	48.4	51.1	X
	Electro-Chemical Processes	15.5	--	--	--	--	--
	Other Process Use	15.7	X	53.1	18.8	18.1	X
	<b>Direct Uses—Total Nonprocess</b>	12.7	X	15.6	46.1	10.6	X
	Facility HVAC <sup>f</sup>	16.5	X	96.8	51.2	25.4	X
	Facility Lighting	9.8	--	--	--	--	--
	Other Facility Support	9.1	X	97.3	19.9	35.2	X
	Onsite Transportation	13.0	--	18.1	45.3	11.7	--
	Conventional Electricity Generation	--	X	57.2	0.0	41.5	X
	Other Nonprocess Use	18.9	X	12.7	9.3	64.4	X
	<b>End use not reported</b>	54.7	X	85.2	53.0	61.6	X
<b>3121</b>	<b>Beverages</b>						
	<b>Total fuel consumption</b>	18.5	X	25.0	50.9	10.9	0.0
	<b>Indirect Uses—Boiler Fuel</b>	35.2	X	55.2	58.8	39.5	0.0
	Conventional Boiler Use	35.2	X	8.9	11.7	14.4	X
	CHP and/or Cogeneration Process	--	X	83.8	65.2	58.1	0.0
	<b>Direct Uses—Total Process</b>	19.4	X	37.7	37.1	22.7	X
	Process Heating	36.8	X	2.6	39.7	33.2	X
	Process Cooling and Refrigeration	11.1	X	97.4	39.4	68.5	X
	Machine Drive	24.1	X	10.1	49.0	51.1	X
	Electro-Chemical Processes	15.7	--	--	--	--	--
	Other Process Use	16.1	X	66.7	18.8	23.2	X
	<b>Direct Uses—Total Nonprocess</b>	14.0	X	15.8	46.6	11.2	X

Facility HVAC <sup>f</sup>	18.6	X	97.1	51.5	25.5	X
Facility Lighting	10.7	--	--	--	--	--
Other Facility Support	10.4	X	97.4	20.4	35.3	X
Onsite Transportation	13.8	--	18.1	47.1	12.6	--
Conventional Electricity Generation	--	X	57.2	0.0	41.5	X
Other Nonprocess Use	19.0	X	14.4	10.5	66.0	X
<b>End use not reported</b>	<b>54.7</b>	<b>X</b>	<b>85.2</b>	<b>53.0</b>	<b>61.6</b>	<b>X</b>

**3122 Tobacco**

<b>Total fuel consumption</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Conventional Boiler Use	0.0	X	0.0	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
<b>Direct Uses—Total Process</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Process Heating	0.0	X	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	0.0	X	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	X	0.0	X
<b>Direct Uses—Total Nonprocess</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Facility HVAC <sup>f</sup>	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	X	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
<b>End use not reported</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>

**313 Textile mills**

<b>Total fuel consumption</b>	<b>6.4</b>	<b>X</b>	<b>78.1</b>	<b>10.5</b>	<b>6.4</b>	<b>42.2</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>38.2</b>	<b>X</b>	<b>0.0</b>	<b>12.5</b>	<b>0.5</b>	<b>8.7</b>
Conventional Boiler Use	38.2	X	0.0	11.8	1.2	0.0
CHP and/or Cogeneration Process	--	X	0.0	21.6	0.0	25.8
<b>Direct Uses—Total Process</b>	<b>6.7</b>	<b>X</b>	<b>95.6</b>	<b>14.6</b>	<b>12.6</b>	<b>73.3</b>
Process Heating	11.6	X	96.6	12.4	13.0	73.3
Process Cooling and Refrigeration	12.2	X	X	49.9	X	73.3
Machine Drive	7.3	X	96.6	28.6	55.1	73.3
Electro-Chemical Processes	45.6	--	--	--	--	--
Other Process Use	31.0	X	92.5	0.6	61.0	X
<b>Direct Uses—Total Nonprocess</b>	<b>8.9</b>	<b>X</b>	<b>19.2</b>	<b>12.6</b>	<b>17.1</b>	<b>X</b>
Facility HVAC <sup>f</sup>	10.8	X	X	15.6	9.0	X

	Facility Lighting	8.3	--	--	--	--	--
	Other Facility Support	8.0	X	X	9.5	X	X
	Onsite Transportation	18.7	--	2.7	1.4	28.6	--
	Conventional Electricity Generation	--	X	X	73.3	X	X
	Other Nonprocess Use	0.0	X	45.8	96.7	X	X
	<b>End use not reported</b>	49.1	X	76.5	64.6	64.6	X
<b>314</b>	<b>Textile product mills</b>						
	<b>Total fuel consumption</b>	14.2	X	54.8	13.5	55.3	X
	<b>Indirect Uses—Boiler Fuel</b>	57.2	X	57.6	19.4	97.2	X
	Conventional Boiler Use	57.2	X	57.6	21.9	41.4	X
	CHP and/or Cogeneration Process	--	X	X	41.2	97.7	X
	<b>Direct Uses—Total Process</b>	12.0	X	X	12.9	76.8	X
	Process Heating	26.3	X	X	11.7	82.8	X
	Process Cooling and Refrigeration	7.6	X	X	77.8	X	X
	Machine Drive	13.1	X	X	63.2	41.4	X
	Electro-Chemical Processes	4.3	--	--	--	--	--
	Other Process Use	48.1	X	X	X	X	X
	<b>Direct Uses—Total Nonprocess</b>	26.4	X	25.9	29.5	46.6	X
	Facility HVAC <sup>f</sup>	34.5	X	X	30.7	61.0	X
	Facility Lighting	15.7	--	--	--	--	--
	Other Facility Support	37.6	X	X	40.8	41.4	X
	Onsite Transportation	41.7	--	25.9	X	57.9	--
	Conventional Electricity Generation	--	X	25.9	88.5	41.4	X
	Other Nonprocess Use	X	X	X	X	X	X
	<b>End use not reported</b>	49.3	X	X	62.1	X	X
<b>315</b>	<b>Apparel</b>						
	<b>Total fuel consumption</b>	11.2	X	96.8	17.9	27.5	X
	<b>Indirect Uses—Boiler Fuel</b>	59.5	X	97.8	25.0	52.6	X
	Conventional Boiler Use	59.5	X	97.8	99.3	X	X
	CHP and/or Cogeneration Process	--	X	X	25.5	52.6	X
	<b>Direct Uses—Total Process</b>	11.5	X	X	27.3	6.9	X
	Process Heating	24.9	X	X	33.3	X	X
	Process Cooling and Refrigeration	25.9	X	X	X	X	X
	Machine Drive	12.0	X	X	75.1	6.9	X
	Electro-Chemical Processes	X	--	--	--	--	--
	Other Process Use	X	X	X	0.0	X	X
	<b>Direct Uses—Total Nonprocess</b>	15.7	X	1.3	20.4	16.8	X
	Facility HVAC <sup>f</sup>	18.5	X	X	22.1	5.3	X
	Facility Lighting	20.2	--	--	--	--	--

Other Facility Support	21.3	X	X	43.1	52.9	X
Onsite Transportation	59.4	--	X	X	62.3	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	44.8	X	1.3	54.8	X	X
<b>End use not reported</b>	<b>64.2</b>	<b>X</b>	<b>X</b>	<b>87.2</b>	<b>X</b>	<b>X</b>

### 316 Leather and allied products

<b>Total fuel consumption</b>	<b>4.9</b>	<b>X</b>	<b>34.7</b>	<b>44.4</b>	<b>13.6</b>	<b>X</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>8.9</b>	<b>X</b>	<b>75.5</b>	<b>0.2</b>	<b>X</b>	<b>X</b>
Conventional Boiler Use	8.9	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	75.5	0.6	X	X
<b>Direct Uses—Total Process</b>	<b>4.3</b>	<b>X</b>	<b>0.0</b>	<b>4.8</b>	<b>53.4</b>	<b>X</b>
Process Heating	8.6	X	0.0	5.0	39.9	X
Process Cooling and Refrigeration	21.2	X	X	0.0	25.6	X
Machine Drive	4.3	X	X	34.4	55.1	X
Electro-Chemical Processes	X	--	--	--	--	--
Other Process Use	66.9	X	X	X	28.1	X
<b>Direct Uses—Total Nonprocess</b>	<b>8.3</b>	<b>X</b>	<b>6.3</b>	<b>53.7</b>	<b>13.6</b>	<b>X</b>
Facility HVAC	9.5	X	6.4	54.3	26.6	X
Facility Lighting	10.5	--	--	--	--	--
Other Facility Support	15.3	X	X	32.3	6.6	X
Onsite Transportation	3.6	--	X	X	7.3	--
Conventional Electricity Generation	--	X	X	X	25.6	X
Other Nonprocess Use	X	X	16.6	X	X	X
<b>End use not reported</b>	<b>71.9</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

### 321 Wood products

<b>Total fuel consumption</b>	<b>5.9</b>	<b>37.3</b>	<b>11.3</b>	<b>7.2</b>	<b>12.8</b>	<b>99.0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>2.9</b>	<b>X</b>	<b>27.3</b>	<b>4.2</b>	<b>29.3</b>	<b>X</b>
Conventional Boiler Use	2.9	X	2.3	8.5	0.7	X
CHP and/or Cogeneration Process	--	X	71.6	4.5	33.6	X
<b>Direct Uses—Total Process</b>	<b>6.8</b>	<b>88.5</b>	<b>15.2</b>	<b>10.1</b>	<b>17.0</b>	<b>99.0</b>
Process Heating	47.4	59.4	26.7	10.8	17.6	99.0
Process Cooling and Refrigeration	4.5	X	40.0	69.0	96.1	X
Machine Drive	2.2	92.4	20.5	6.4	45.5	X
Electro-Chemical Processes	2.4	--	--	--	--	--
Other Process Use	36.6	X	44.0	4.3	45.7	X
<b>Direct Uses—Total Nonprocess</b>	<b>4.2</b>	<b>1.3</b>	<b>14.9</b>	<b>8.4</b>	<b>17.2</b>	<b>X</b>
Facility HVAC	6.3	1.3	15.4	8.8	41.5	X
Facility Lighting	3.7	--	--	--	--	--
Other Facility Support	6.0	0.0	9.2	21.1	29.2	X

Onsite Transportation	17.4	--	5.9	43.2	18.8	--
Conventional Electricity Generation	--	X	56.7	53.9	74.3	X
Other Nonprocess Use	30.2	X	88.2	0.0	96.0	X
<b>End use not reported</b>	<b>14.5</b>	<b>X</b>	<b>59.9</b>	<b>31.5</b>	<b>46.3</b>	<b>X</b>

**321113 Sawmills**

<b>Total fuel consumption</b>	<b>1.8</b>	<b>38.7</b>	<b>4.7</b>	<b>7.5</b>	<b>9.6</b>	<b>X</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>2.8</b>	<b>X</b>	<b>1.5</b>	<b>9.9</b>	<b>4.1</b>	<b>X</b>
Conventional Boiler Use	2.8	X	0.7	0.5	1.0	X
CHP and/or Cogeneration Process	--	X	16.6	14.5	6.0	X
<b>Direct Uses—Total Process</b>	<b>2.0</b>	<b>89.7</b>	<b>14.8</b>	<b>9.6</b>	<b>12.3</b>	<b>X</b>
Process Heating	6.8	71.0	0.9	9.8	13.8	X
Process Cooling and Refrigeration	3.2	X	X	X	X	X
Machine Drive	1.5	93.1	24.0	1.6	11.8	X
Electro-Chemical Processes	3.5	--	--	--	--	--
Other Process Use	46.5	X	38.7	0.0	31.3	X
<b>Direct Uses—Total Nonprocess</b>	<b>1.8</b>	<b>1.3</b>	<b>3.8</b>	<b>21.2</b>	<b>11.4</b>	<b>X</b>
Facility HVAC	2.4	1.3	4.3	22.3	21.6	X
Facility Lighting	1.8	--	--	--	--	--
Other Facility Support	3.0	X	0.0	3.0	11.5	X
Onsite Transportation	5.9	--	3.9	0.0	12.7	--
Conventional Electricity Generation	--	X	93.9	X	0.0	X
Other Nonprocess Use	0.7	X	25.6	X	0.0	X
<b>End use not reported</b>	<b>4.5</b>	<b>X</b>	<b>72.7</b>	<b>0.0</b>	<b>58.7</b>	<b>X</b>

**3212 Veneer, plywood, and engineered wood product manufacturing**

<b>Total fuel consumption</b>	<b>2.6</b>	<b>0.0</b>	<b>22.1</b>	<b>2.0</b>	<b>8.1</b>	<b>X</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>0.6</b>	<b>X</b>	<b>2.6</b>	<b>3.6</b>	<b>1.5</b>	<b>X</b>
Conventional Boiler Use	0.6	X	42.9	17.5	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	1.7	2.9	X
<b>Direct Uses—Total Process</b>	<b>2.9</b>	<b>0.0</b>	<b>3.6</b>	<b>1.8</b>	<b>22.2</b>	<b>X</b>
Process Heating	4.0	0.0	0.0	2.0	47.3	X
Process Cooling and Refrigeration	5.6	X	X	17.5	96.1	X
Machine Drive	3.0	0.0	4.8	3.5	35.8	X
Electro-Chemical Processes	5.0	--	--	--	--	--
Other Process Use	3.4	X	63.9	4.7	0.0	X
<b>Direct Uses—Total Nonprocess</b>	<b>3.9</b>	<b>0.0</b>	<b>16.6</b>	<b>9.3</b>	<b>7.6</b>	<b>X</b>
Facility HVAC	4.1	0.0	X	9.8	16.5	X
Facility Lighting	5.8	--	--	--	--	--
Other Facility Support	5.8	0.0	13.3	8.9	26.8	X
Onsite Transportation	16.6	--	16.7	35.1	7.8	--



Conventional Electricity Generation	--	X	40.9	52.5	77.0	X
Other Nonprocess Use	5.0	X	0.0	0.0	0.0	X
<b>End use not reported</b>	5.3	X	88.8	19.3	96.2	X

**321219 Reconstituted wood products**

<b>Total fuel consumption</b>	3.0	0.0	0.0	2.7	26.6	X
<b>Indirect Uses—Boiler Fuel</b>	0.1	X	0.0	2.1	0.0	X
Conventional Boiler Use	0.1	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	0.0	2.5	0.0	X
<b>Direct Uses—Total Process</b>	3.0	0.0	0.0	2.3	7.7	X
Process Heating	8.5	0.0	0.0	2.6	0.0	X
Process Cooling and Refrigeration	1.7	X	X	0.0	X	X
Machine Drive	3.1	0.0	0.0	0.0	41.2	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	47.8	X	X	0.0	X	X
<b>Direct Uses—Total Nonprocess</b>	6.2	0.0	0.0	13.4	28.5	X
Facility HVAC	7.2	0.0	X	13.4	0.0	X
Facility Lighting	6.4	--	--	--	--	--
Other Facility Support	1.8	0.0	0.0	0.0	X	X
Onsite Transportation	16.7	--	0.0	X	28.7	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	X	X	X	X	X	X
<b>End use not reported</b>	0.0	X	X	0.0	X	X

**3219 Other wood products**

<b>Total fuel consumption</b>	20.0	X	27.4	26.1	16.9	99.0
<b>Indirect Uses—Boiler Fuel</b>	15.4	X	0.0	14.0	53.7	X
Conventional Boiler Use	15.4	X	0.0	9.4	X	X
CHP and/or Cogeneration Process	--	X	X	21.1	53.7	X
<b>Direct Uses—Total Process</b>	23.7	X	58.8	35.6	39.3	99.0
Process Heating	73.0	X	X	37.6	50.7	99.0
Process Cooling and Refrigeration	10.9	X	41.0	95.3	X	X
Machine Drive	8.4	X	44.0	25.3	69.0	X
Electro-Chemical Processes	2.7	--	--	--	--	--
Other Process Use	26.3	X	83.5	10.4	91.5	X
<b>Direct Uses—Total Nonprocess</b>	11.1	X	32.4	14.1	20.9	X
Facility HVAC	15.1	X	98.3	14.6	60.3	X
Facility Lighting	10.4	--	--	--	--	--
Other Facility Support	16.2	X	X	38.0	95.8	X
Onsite Transportation	27.1	--	34.4	80.2	22.5	--
Conventional Electricity Generation	--	X	74.1	95.3	X	X

	Other Nonprocess Use	67.1	X	0.0	X	96.8	X
	<b>End use not reported</b>	<b>51.7</b>	<b>X</b>	<b>0.0</b>	<b>81.7</b>	<b>54.9</b>	<b>X</b>

**322 Paper**

	<b>Total fuel consumption</b>	<b>1.3</b>	<b>0.9</b>	<b>0.4</b>	<b>1.4</b>	<b>16.6</b>	<b>0.9</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>1.4</b>	<b>1.0</b>	<b>0.2</b>	<b>1.5</b>	<b>0.0</b>	<b>0.9</b>
	Conventional Boiler Use	1.4	0.0	0.0	4.2	0.0	0.0
	CHP and/or Cogeneration Process	--	1.3	0.2	1.6	0.0	0.9
	<b>Direct Uses—Total Process</b>	<b>1.3</b>	<b>0.0</b>	<b>0.1</b>	<b>3.3</b>	<b>49.2</b>	<b>0.0</b>
	Process Heating	2.9	0.0	0.0	3.0	0.2	X
	Process Cooling and Refrigeration	14.3	X	X	0.8	X	X
	Machine Drive	1.2	X	0.1	17.6	59.4	0.0
	Electro-Chemical Processes	19.5	--	--	--	--	--
	Other Process Use	8.6	X	0.0	1.5	5.2	X
	<b>Direct Uses—Total Nonprocess</b>	<b>2.7</b>	<b>0.0</b>	<b>0.9</b>	<b>5.0</b>	<b>13.9</b>	<b>0.0</b>
	Facility HVAC <sup>C</sup>	3.7	X	0.0	7.8	18.3	X
	Facility Lighting	2.4	--	--	--	--	--
	Other Facility Support	4.3	X	0.0	6.0	4.9	X
	Onsite Transportation	11.2	--	1.0	0.9	14.8	--
	Conventional Electricity Generation	--	0.0	0.0	0.0	0.0	0.0
	Other Nonprocess Use	8.3	X	0.0	3.3	60.7	X
	<b>End use not reported</b>	<b>51.9</b>	<b>0.0</b>	<b>X</b>	<b>94.0</b>	<b>97.3</b>	<b>X</b>

**322110 Pulp mills**

	<b>Total fuel consumption</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
	Conventional Boiler Use	0.0	X	0.0	0.0	X	X
	CHP and/or Cogeneration Process	--	0.0	0.0	0.0	0.0	0.0
	<b>Direct Uses—Total Process</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>	<b>X</b>
	Process Heating	0.0	X	0.0	0.0	X	X
	Process Cooling and Refrigeration	0.0	X	X	X	X	X
	Machine Drive	0.0	X	0.0	0.0	X	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.0	X	0.0	X	X	X
	<b>Direct Uses—Total Nonprocess</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
	Facility HVAC <sup>C</sup>	0.0	X	0.0	0.0	0.0	X
	Facility Lighting	0.0	--	--	--	--	--
	Other Facility Support	0.0	X	X	0.0	X	X
	Onsite Transportation	0.0	--	0.0	0.0	0.0	--
	Conventional Electricity Generation	--	X	X	0.0	X	X
	Other Nonprocess Use	X	X	0.0	X	X	X

End use not reported		X	X	X	X	X	X
<b>322120</b>	<b>Paper mills</b>						
<b>Total fuel consumption</b>		0.0	0.0	0.0	0.0	0.0	0.0
<b>Indirect Uses—Boiler Fuel</b>		0.0	0.0	0.0	0.0	0.0	0.0
Conventional Boiler Use		0.0	0.0	0.0	0.0	0.0	X
CHP and/or Cogeneration Process		--	0.0	0.0	0.0	0.0	0.0
<b>Direct Uses—Total Process</b>		0.0	X	0.0	0.0	0.0	X
Process Heating		0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration		0.0	X	X	X	X	X
Machine Drive		0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes		0.0	--	--	--	--	--
Other Process Use		0.0	X	0.0	0.0	X	X
<b>Direct Uses—Total Nonprocess</b>		0.0	0.0	0.0	0.0	0.0	X
Facility HVAC <sup>C</sup>		0.0	X	0.0	0.0	0.0	X
Facility Lighting		0.0	--	--	--	--	--
Other Facility Support		0.0	X	0.0	0.0	0.0	X
Onsite Transportation		0.0	--	0.0	X	0.0	--
Conventional Electricity Generation		--	0.0	0.0	0.0	0.0	X
Other Nonprocess Use		0.0	X	0.0	0.0	X	X
End use not reported		X	X	X	X	0.0	X
<b>322130</b>	<b>Paperboard mills</b>						
<b>Total fuel consumption</b>		0.0	0.0	0.0	0.0	0.0	0.0
<b>Indirect Uses—Boiler Fuel</b>		0.0	0.0	0.0	0.0	0.0	0.0
Conventional Boiler Use		0.0	0.0	0.0	0.0	X	0.0
CHP and/or Cogeneration Process		--	0.0	0.0	0.0	0.0	0.0
<b>Direct Uses—Total Process</b>		0.0	0.0	0.0	0.0	0.0	0.0
Process Heating		0.0	0.0	0.0	0.0	0.0	X
Process Cooling and Refrigeration		0.0	X	X	0.0	X	X
Machine Drive		0.0	X	0.0	0.0	0.0	0.0
Electro-Chemical Processes		0.0	--	--	--	--	--
Other Process Use		0.0	X	0.0	0.0	0.0	X
<b>Direct Uses—Total Nonprocess</b>		0.0	X	0.0	0.0	0.0	0.0
Facility HVAC <sup>C</sup>		0.0	X	0.0	0.0	0.0	X
Facility Lighting		0.0	--	--	--	--	--
Other Facility Support		0.0	X	0.0	0.0	0.0	X
Onsite Transportation		0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation		--	X	X	0.0	0.0	0.0
Other Nonprocess Use		0.0	X	X	0.0	0.0	X
End use not reported		X	0.0	X	X	0.0	X

323	Printing and related support					

<b>324</b>	<b>Petroleum and coal products</b>					
<b>Total fuel consumption</b>	0.1	15.9	2.5	0.2	0.1	0.0
<b>Indirect Uses—Boiler Fuel</b>	1.6	0.0	2.5	0.3	0.2	X
Conventional Boiler Use	1.6	X	0.0	0.8	0.1	X
CHP and/or Cogeneration Process	--	0.0	2.5	0.2	0.6	X
<b>Direct Uses—Total Process</b>	0.1	17.0	4.7	0.3	0.2	0.0
Process Heating	0.5	17.0	4.8	0.3	0.2	X
Process Cooling and Refrigeration	1.5	X	X	0.9	0.0	X
Machine Drive	0.1	X	3.4	2.5	0.3	X
Electro-Chemical Processes	0.2	--	--	--	--	--
Other Process Use	3.7	X	36.5	0.1	0.0	0.0
<b>Direct Uses—Total Nonprocess</b>	0.3	0.0	1.5	2.2	2.0	X
Facility HVAC <sup>f</sup>	0.3	X	24.1	2.5	3.6	X
Facility Lighting	0.3	--	--	--	--	--
Other Facility Support	0.6	X	68.3	1.3	16.0	X
Onsite Transportation	3.2	--	1.7	0.0	2.7	--
Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
Other Nonprocess Use	5.8	0.0	1.8	8.0	0.1	X
<b>End use not reported</b>	2.4	0.0	3.1	0.1	0.4	X

<b>324110</b>	<b>Petroleum refineries</b>						
	<b>Total fuel consumption</b>	0.0	0.0	0.0	0.0	0.0	X
	<b>Indirect Uses—Boiler Fuel</b>	0.0	0.0	X	0.0	0.0	X
	Conventional Boiler Use	0.0	X	X	0.0	0.0	X
	CHP and/or Cogeneration Process	--	0.0	X	0.0	0.0	X
	<b>Direct Uses—Total Process</b>	0.0	0.0	0.0	0.0	0.0	X
	Process Heating	0.0	0.0	0.0	0.0	0.0	X
	Process Cooling and Refrigeration	0.0	X	X	0.0	0.0	X
	Machine Drive	0.0	X	0.0	0.0	0.0	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.0	X	0.0	0.0	0.0	X
	<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
	Facility HVAC <sup>f</sup>	0.0	X	0.0	0.0	0.0	X
	Facility Lighting	0.0	--	--	--	--	--
	Other Facility Support	0.0	X	X	0.0	0.0	X
	Onsite Transportation	0.0	--	0.0	0.0	0.0	--
	Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
	Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
	<b>End use not reported</b>	X	0.0	0.0	0.0	0.0	X
<b>324121</b>	<b>Asphalt paving mixture and block</b>						
	<b>Total fuel consumption</b>	3.6	17.7	4.7	4.1	6.1	X
	<b>Indirect Uses—Boiler Fuel</b>	8.7	X	2.6	12.6	49.2	X
	Conventional Boiler Use	8.7	X	X	20.8	84.2	X
	CHP and/or Cogeneration Process	--	X	2.6	14.1	55.3	X
	<b>Direct Uses—Total Process</b>	4.2	17.7	8.1	4.0	6.2	X
	Process Heating	7.0	17.7	6.1	5.0	10.1	X
	Process Cooling and Refrigeration	72.1	X	X	82.4	X	X
	Machine Drive	2.3	X	8.1	4.5	0.9	X
	Electro-Chemical Processes	0.7	--	--	--	--	--
	Other Process Use	42.1	X	45.1	6.7	0.0	X
	<b>Direct Uses—Total Nonprocess</b>	3.5	0.0	3.1	41.7	19.5	X
	Facility HVAC <sup>f</sup>	4.3	X	30.8	11.3	14.7	X
	Facility Lighting	3.5	--	--	--	--	--
	Other Facility Support	5.4	X	77.3	12.8	80.8	X
	Onsite Transportation	2.2	--	3.9	X	6.4	--
	Conventional Electricity Generation	--	X	0.0	X	X	X
	Other Nonprocess Use	27.0	0.0	2.6	68.7	X	X
	<b>End use not reported</b>	3.3	X	27.0	0.1	59.2	X
<b>324122</b>	<b>Asphalt shingle and coating materials</b>						

<b>Total fuel consumption</b>	1.1	X	0.0	0.6	2.3	X
<b>Indirect Uses—Boiler Fuel</b>	2.0	X	0.0	1.8	0.0	X
Conventional Boiler Use	2.0	X	0.0	0.1	0.0	X
CHP and/or Cogeneration Process	--	X	X	3.8	0.0	X
<b>Direct Uses—Total Process</b>	1.0	X	0.0	0.7	0.2	X
Process Heating	2.3	X	0.0	0.8	0.2	X
Process Cooling and Refrigeration	1.4	X	X	0.0	X	X
Machine Drive	1.0	X	0.0	0.1	0.0	X
Electro-Chemical Processes	9.8	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses—Total Nonprocess</b>	1.7	X	0.0	0.4	2.6	X
Facility HVAC	1.5	X	0.0	0.5	0.0	X
Facility Lighting	1.7	--	--	--	--	--
Other Facility Support	3.3	X	X	0.3	0.0	X
Onsite Transportation	0.0	--	0.0	X	2.7	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	X	X	0.0	X	1.0	X
<b>End use not reported</b>	X	X	X	X	X	X

**324191 Petroleum lubricating oil and grease manufacturing**

<b>Total fuel consumption</b>	1.8	X	1.3	12.5	9.3	X
<b>Indirect Uses—Boiler Fuel</b>	14.1	X	0.0	15.3	37.0	X
Conventional Boiler Use	14.1	X	X	43.8	X	X
CHP and/or Cogeneration Process	--	X	0.0	0.7	37.0	X
<b>Direct Uses—Total Process</b>	1.9	X	13.5	13.0	0.0	X
Process Heating	5.5	X	X	20.4	X	X
Process Cooling and Refrigeration	0.9	X	X	23.7	0.0	X
Machine Drive	2.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	10.3	--	--	--	--	--
Other Process Use	26.3	X	55.1	25.2	X	X
<b>Direct Uses—Total Nonprocess</b>	3.7	X	1.2	6.6	8.3	X
Facility HVAC	3.0	X	0.0	10.1	50.3	X
Facility Lighting	3.6	--	--	--	--	--
Other Facility Support	9.6	X	0.0	1.1	41.3	X
Onsite Transportation	8.7	--	1.5	0.0	8.8	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	0.0	21.3	X	X
<b>End use not reported</b>	0.0	X	X	X	X	X

**324199 All other petroleum and coal products manufacturing**

<b>Total fuel consumption</b>	0.0	X	0.0	0.0	0.0	0.0
<b>Indirect Uses—Boiler Fuel</b>	0.0	X	X	0.0	0.0	X
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	0.0	X
<b>Direct Uses—Total Process</b>	0.0	X	0.0	0.0	0.0	0.0
Process Heating	0.0	X	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	0.0	X	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	0.0
<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	X	0.0	0.0	X
<b>End use not reported</b>	0.0	X	X	X	X	X

**325 Chemicals**

<b>Total fuel consumption</b>	2.4	0.0	10.1	2.9	4.0	0.1
<b>Indirect Uses—Boiler Fuel</b>	6.0	0.0	3.6	3.7	0.1	0.0
Conventional Boiler Use	6.0	0.0	25.5	2.7	0.1	0.0
CHP and/or Cogeneration Process	--	0.0	0.1	5.4	0.1	0.0
<b>Direct Uses—Total Process</b>	2.2	X	36.8	3.6	1.2	0.0
Process Heating	8.2	X	5.1	4.9	0.5	0.0
Process Cooling and Refrigeration	2.1	X	0.0	14.3	2.1	0.0
Machine Drive	3.3	X	62.3	3.4	9.8	0.0
Electro-Chemical Processes	0.4	--	--	--	--	--
Other Process Use	5.9	X	3.6	1.8	4.0	0.0
<b>Direct Uses—Total Nonprocess</b>	3.4	X	4.1	10.7	31.7	0.2
Facility HVAC	3.9	X	3.6	12.8	45.3	0.0
Facility Lighting	3.4	--	--	--	--	--
Other Facility Support	5.6	X	15.1	13.3	7.7	0.0
Onsite Transportation	8.4	--	5.2	13.8	36.4	--
Conventional Electricity Generation	--	X	9.3	0.1	18.5	0.0
Other Nonprocess Use	28.9	X	2.1	45.0	7.3	96.1
<b>End use not reported</b>	45.9	X	4.4	9.9	17.7	0.0

**325110 Petrochemicals**

<b>Total fuel consumption</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses—Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	X
Conventional Boiler Use	0.0	X	0.0	0.0	0.0	X
CHP and/or Cogeneration Process	--	X	X	0.0	0.0	X
<b>Direct Uses—Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	X	0.0	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
Other Nonprocess Use	X	X	0.0	X	X	X
<b>End use not reported</b>	X	X	X	X	0.0	X

**325120 Industrial gases**

<b>Total fuel consumption</b>	14.7	X	7.2	0.2	66.9	X
<b>Indirect Uses—Boiler Fuel</b>	0.0	X	0.0	0.0	X	X
Conventional Boiler Use	0.0	X	0.0	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses—Total Process</b>	13.5	X	0.0	0.3	85.3	X
Process Heating	21.2	X	X	D	93.3	X
Process Cooling and Refrigeration	5.6	X	X	83.1	X	X
Machine Drive	16.0	X	0.0	D	83.1	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	X	0.1	0.0	X
<b>Direct Uses—Total Nonprocess</b>	16.6	X	8.7	29.2	83.2	X
Facility HVAC	23.2	X	0.0	25.5	X	X
Facility Lighting	1.8	--	--	--	--	--
Other Facility Support	25.1	X	X	66.7	X	X
Onsite Transportation	X	--	0.0	94.0	83.2	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	X	X	22.0	0.0	X	X
<b>End use not reported</b>	75.3	X	X	X	0.0	X

**325180 Other basic inorganic chemical manufacturing**

<b>Total fuel consumption</b>	1.9	X	24.6	3.3	26.1	0.0
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	<b>Indirect Uses—Boiler Fuel</b>	1.1	X	67.9	2.1	0.0	0.0
	Conventional Boiler Use	1.1	X	69.6	7.1	0.0	0.0
	CHP and/or Cogeneration Process	--	X	69.8	2.2	X	X
	<b>Direct Uses—Total Process</b>	1.7	X	41.8	6.1	58.6	0.0
	Process Heating	4.3	X	65.2	11.7	62.5	0.0
	Process Cooling and Refrigeration	5.1	X	X	11.2	X	X
	Machine Drive	5.9	X	45.0	6.8	22.5	X
	Electro-Chemical Processes	0.1	--	--	--	--	--
	Other Process Use	9.4	X	16.5	15.0	72.7	X
	<b>Direct Uses—Total Nonprocess</b>	10.9	X	7.2	17.0	31.7	X
	Facility HVAC <sup>C</sup>	13.7	X	X	16.0	60.2	X
	Facility Lighting	9.3	--	--	--	--	--
	Other Facility Support	9.7	X	X	29.4	X	X
	Onsite Transportation	46.5	--	7.1	48.3	34.9	--
	Conventional Electricity Generation	--	X	23.9	X	35.9	X
	Other Nonprocess Use	10.3	X	25.2	17.2	57.7	X
	<b>End use not reported</b>	8.1	X	73.0	82.5	54.5	0.0
<b>325193</b>	<b>Ethyl alcohol</b>						
	<b>Total fuel consumption</b>	2.4	X	3.1	2.7	0.5	0.0
	<b>Indirect Uses—Boiler Fuel</b>	12.1	X	X	3.8	X	0.0
	Conventional Boiler Use	12.1	X	X	4.1	X	X
	CHP and/or Cogeneration Process	--	X	X	10.0	X	0.0
	<b>Direct Uses—Total Process</b>	2.5	X	3.3	3.3	0.0	X
	Process Heating	7.6	X	X	4.0	X	X
	Process Cooling and Refrigeration	3.6	X	X	20.2	X	X
	Machine Drive	3.1	X	0.4	5.2	0.0	X
	Electro-Chemical Processes	13.3	--	--	--	--	--
	Other Process Use	28.1	X	3.6	13.1	0.0	X
	<b>Direct Uses—Total Nonprocess</b>	4.7	X	3.2	4.0	1.1	X
	Facility HVAC <sup>C</sup>	6.3	X	18.7	6.9	2.3	X
	Facility Lighting	4.8	--	--	--	--	--
	Other Facility Support	5.8	X	18.7	4.0	0.0	X
	Onsite Transportation	5.6	--	3.3	10.8	1.2	--
	Conventional Electricity Generation	--	X	7.4	0.1	X	X
	Other Nonprocess Use	55.9	X	0.0	41.7	0.0	X
	<b>End use not reported</b>	X	X	X	X	5.4	0.0
<b>325194</b>	<b>Cyclic crudes, intermediate and gum and wood chemicals</b>						
	<b>Total fuel consumption</b>	0.0	X	0.0	0.0	0.0	X
	<b>Indirect Uses—Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	X

Conventional Boiler Use	0.0	X	0.0	0.0	X	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
<b>Direct Uses—Total Process</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Process Heating	0.0	X	0.0	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	X	X	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	X
<b>Direct Uses—Total Nonprocess</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Facility HVAC <sup>C</sup>	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	X	X	X
<b>End use not reported</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

**325199 All other basic organic chemical manufacturing**

<b>Total fuel consumption</b>	<b>2.0</b>	<b>0.0</b>	<b>11.3</b>	<b>3.9</b>	<b>10.7</b>	<b>0.0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>37.9</b>	<b>0.0</b>	<b>58.3</b>	<b>4.7</b>	<b>3.1</b>	<b>0.0</b>
Conventional Boiler Use	37.9	0.0	60.4	2.6	70.4	0.0
CHP and/or Cogeneration Process	--	0.0	0.0	8.5	3.1	0.0
<b>Direct Uses—Total Process</b>	<b>1.9</b>	<b>X</b>	<b>5.8</b>	<b>7.2</b>	<b>12.5</b>	<b>0.0</b>
Process Heating	6.8	X	0.4	9.3	0.0	X
Process Cooling and Refrigeration	3.3	X	X	14.8	0.0	X
Machine Drive	2.4	X	10.1	27.4	13.2	X
Electro-Chemical Processes	0.5	--	--	--	--	--
Other Process Use	17.1	X	15.7	3.5	47.5	0.0
<b>Direct Uses—Total Nonprocess</b>	<b>4.7</b>	<b>X</b>	<b>3.3</b>	<b>10.7</b>	<b>22.4</b>	<b>X</b>
Facility HVAC <sup>C</sup>	5.9	X	X	13.8	40.1	X
Facility Lighting	4.3	--	--	--	--	--
Other Facility Support	6.8	X	17.3	14.1	0.0	X
Onsite Transportation	7.6	--	3.7	65.7	23.4	--
Conventional Electricity Generation	--	X	7.3	0.0	52.0	X
Other Nonprocess Use	4.1	X	2.1	15.8	0.0	X
<b>End use not reported</b>	<b>0.6</b>	<b>X</b>	<b>X</b>	<b>86.0</b>	<b>0.0</b>	<b>X</b>

**325211 Plastics materials and resins**

<b>Total fuel consumption</b>	<b>2.1</b>	<b>X</b>	<b>4.0</b>	<b>1.3</b>	<b>3.2</b>	<b>X</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>14.5</b>	<b>X</b>	<b>0.0</b>	<b>0.8</b>	<b>0.0</b>	<b>X</b>
Conventional Boiler Use	14.5	X	0.0	2.7	0.0	X

	CHP and/or Cogeneration Process	--	X	0.0	0.9	0.0	X
	<b>Direct Uses—Total Process</b>	1.9	X	16.6	3.9	0.6	X
	Process Heating	7.8	X	61.3	3.5	25.9	X
	Process Cooling and Refrigeration	8.3	X	0.0	4.6	26.6	X
	Machine Drive	2.4	X	6.9	9.8	54.0	X
	Electro-Chemical Processes	1.7	--	--	--	--	--
	Other Process Use	21.5	X	77.6	27.3	0.0	X
	<b>Direct Uses—Total Nonprocess</b>	4.9	X	7.0	14.6	34.6	X
	Facility HVAC <sup>f</sup>	5.6	X	X	10.8	69.9	X
	Facility Lighting	4.7	--	--	--	--	--
	Other Facility Support	10.4	X	0.0	3.8	6.3	X
	Onsite Transportation	13.5	--	6.9	0.0	34.5	--
	Conventional Electricity Generation	--	X	48.7	64.2	76.3	X
	Other Nonprocess Use	14.7	X	23.8	81.2	0.4	X
	<b>End use not reported</b>	27.5	X	X	53.1	88.0	X
<b>325212</b>	<b>Synthetic rubber</b>						
	<b>Total fuel consumption</b>	0.4	X	0.0	0.1	0.0	0.0
	<b>Indirect Uses—Boiler Fuel</b>	0.0	X	0.0	0.0	X	0.0
	Conventional Boiler Use	0.0	X	0.0	0.0	X	0.0
	CHP and/or Cogeneration Process	--	X	X	0.0	X	0.0
	<b>Direct Uses—Total Process</b>	0.3	X	0.0	0.0	0.0	0.0
	Process Heating	1.6	X	X	0.0	0.0	0.0
	Process Cooling and Refrigeration	0.3	X	0.0	0.0	0.0	0.0
	Machine Drive	0.2	X	0.0	0.0	0.0	0.0
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.0	X	0.0	0.0	X	X
	<b>Direct Uses—Total Nonprocess</b>	1.2	X	0.0	4.5	0.0	0.0
	Facility HVAC <sup>f</sup>	0.9	X	X	7.7	X	0.0
	Facility Lighting	1.0	--	--	--	--	--
	Other Facility Support	3.4	X	X	0.0	X	0.0
	Onsite Transportation	0.0	--	0.0	X	0.0	--
	Conventional Electricity Generation	--	X	0.0	X	0.0	0.0
	Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
	<b>End use not reported</b>	X	X	X	X	0.0	X
		2.0	X	0.0	0.1	0.0	X
<b>325220</b>	<b>Artificial and synthetic fibers and filaments</b>						
	<b>Total fuel consumption</b>						
	<b>Indirect Uses—Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	X
	Conventional Boiler Use	0.0	X	0.0	0.0	X	X
	CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X

	<b>Direct Uses—Total Process</b>	2.6	X	0.0	0.8	0.0	X
	Process Heating	0.0	X	X	0.0	0.0	X
	Process Cooling and Refrigeration	0.0	X	X	X	X	X
	Machine Drive	3.7	X	0.0	43.3	X	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.0	X	X	0.0	0.0	X
	<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
	Facility HVAC <sup>f</sup>	0.0	X	X	0.0	0.0	X
	Facility Lighting	0.0	--	--	--	--	--
	Other Facility Support	0.0	X	X	0.0	0.0	X
	Onsite Transportation	0.0	--	0.0	0.0	0.0	--
	Conventional Electricity Generation	--	X	X	0.0	0.0	X
	Other Nonprocess Use	0.0	X	0.0	X	0.0	X
	<b>End use not reported</b>	X	X	X	X	X	X
<b>325311</b>	<b>Nitrogenous fertilizers</b>						
	<b>Total fuel consumption</b>	0.0	X	0.0	0.0	0.0	X
	<b>Indirect Uses—Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	X
	Conventional Boiler Use	0.0	X	X	0.0	0.0	X
	CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
	<b>Direct Uses—Total Process</b>	0.0	X	0.0	0.0	0.0	X
	Process Heating	0.0	X	0.0	0.0	0.0	X
	Process Cooling and Refrigeration	0.0	X	X	0.0	0.0	X
	Machine Drive	0.0	X	0.0	0.0	0.0	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.0	X	0.0	0.0	X	X
	<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
	Facility HVAC <sup>f</sup>	0.0	X	X	0.0	0.0	X
	Facility Lighting	0.0	--	--	--	--	--
	Other Facility Support	0.0	X	0.0	0.0	0.0	X
	Onsite Transportation	0.0	--	0.0	X	0.0	--
	Conventional Electricity Generation	--	X	0.0	0.0	X	X
	Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
	<b>End use not reported</b>	0.0	X	0.0	0.0	0.0	X
<b>325312</b>	<b>Phosphatic fertilizers</b>						
	<b>Total fuel consumption</b>	0.0	0.0	0.0	0.0	0.0	0.0
	<b>Indirect Uses—Boiler Fuel</b>	0.0	0.0	0.0	0.0	0.0	X
	Conventional Boiler Use	0.0	0.0	X	0.0	X	X
	CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
	<b>Direct Uses—Total Process</b>	0.0	X	0.0	0.0	0.0	0.0

Process Heating	0.0	X	0.0	0.0	0.0	0.0
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	X	0.0	X
Electro-Chemical Processes	X	--	--	--	--	--
Other Process Use	X	X	0.0	X	X	X
<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC <sup>c</sup>	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	X	X	X	0.0	0.0	X
<b>End use not reported</b>	0.0	X	0.0	X	X	X

**3254 Pharmaceuticals and medicines**

<b>Total fuel consumption</b>	5.0	X	1.5	14.1	4.5	96.1
<b>Indirect Uses—Boiler Fuel</b>	10.3	X	0.0	6.2	0.4	X
Conventional Boiler Use	10.3	X	0.0	7.9	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	10.7	0.8	X
<b>Direct Uses—Total Process</b>	3.6	X	2.1	37.4	1.4	X
Process Heating	6.7	X	0.0	32.0	0.1	X
Process Cooling and Refrigeration	3.0	X	0.0	53.1	0.0	X
Machine Drive	4.4	X	14.1	51.5	12.2	X
Electro-Chemical Processes	49.1	--	--	--	--	--
Other Process Use	9.5	X	4.0	8.8	0.0	X
<b>Direct Uses—Total Nonprocess</b>	7.3	X	2.4	24.4	11.9	96.1
Facility HVAC <sup>c</sup>	6.1	X	0.2	24.1	0.1	X
Facility Lighting	10.1	--	--	--	--	--
Other Facility Support	15.5	X	0.0	31.8	0.0	X
Onsite Transportation	8.9	--	12.6	32.1	52.7	--
Conventional Electricity Generation	--	X	4.3	8.1	0.0	X
Other Nonprocess Use	66.5	X	9.3	46.7	67.1	96.1
<b>End use not reported</b>	25.6	X	X	82.7	31.8	X

**325412 Pharmaceutical preparation**

<b>Total fuel consumption</b>	5.1	X	1.2	24.8	5.8	X
<b>Indirect Uses—Boiler Fuel</b>	7.5	X	0.0	9.5	0.0	X
Conventional Boiler Use	7.5	X	0.0	14.7	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	5.8	0.0	X
<b>Direct Uses—Total Process</b>	3.8	X	0.2	50.0	2.2	X
Process Heating	3.9	X	0.0	44.5	0.0	X

	Process Cooling and Refrigeration	2.5	X	X	59.9	X	X
	Machine Drive	5.6	X	14.2	64.0	57.4	X
	Electro-Chemical Processes	1.9	--	--	--	--	--
	Other Process Use	2.8	X	0.0	0.1	0.0	X
	<b>Direct Uses—Total Nonprocess</b>	<b>8.3</b>	<b>X</b>	<b>2.2</b>	<b>42.5</b>	<b>12.5</b>	<b>X</b>
	Facility HVAC	4.7	X	0.0	42.0	0.0	X
	Facility Lighting	6.7	--	--	--	--	--
	Other Facility Support	5.1	X	0.0	47.1	0.0	X
	Onsite Transportation	12.8	--	19.7	0.0	58.2	--
	Conventional Electricity Generation	--	X	3.5	1.6	X	X
	Other Nonprocess Use	72.7	X	2.9	57.9	67.7	X
	<b>End use not reported</b>	<b>37.4</b>	<b>X</b>	<b>X</b>	<b>88.4</b>	<b>0.0</b>	<b>X</b>
<b>325992</b>	<b>Photographic film, paper, plate, chemical, and copy toner manufacturing</b>						
	<b>Total fuel consumption</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>	<b>X</b>
	Conventional Boiler Use	0.0	X	X	0.0	X	X
	CHP and/or Cogeneration Process	--	X	X	0.0	X	X
	<b>Direct Uses—Total Process</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>	<b>X</b>
	Process Heating	0.0	X	X	0.0	X	X
	Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
	Machine Drive	0.0	X	0.0	0.0	X	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.0	X	0.0	0.0	X	X
	<b>Direct Uses—Total Nonprocess</b>	<b>0.0</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
	Facility HVAC	0.0	X	0.0	0.0	0.0	X
	Facility Lighting	0.0	--	--	--	--	--
	Other Facility Support	0.0	X	0.0	0.0	X	X
	Onsite Transportation	0.0	--	0.0	0.0	0.0	--
	Conventional Electricity Generation	--	X	0.0	0.0	X	X
	Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
	<b>End use not reported</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>
<b>326</b>	<b>Plastics and rubber products</b>						
	<b>Total fuel consumption</b>	<b>18.4</b>	<b>90.7</b>	<b>44.7</b>	<b>16.0</b>	<b>34.2</b>	<b>X</b>
	<b>Indirect Uses—Boiler Fuel</b>	<b>49.1</b>	<b>92.1</b>	<b>44.2</b>	<b>25.1</b>	<b>69.2</b>	<b>X</b>
	Conventional Boiler Use	49.1	92.1	62.1	42.9	X	X
	CHP and/or Cogeneration Process	--	X	0.0	29.9	69.2	X
	<b>Direct Uses—Total Process</b>	<b>19.9</b>	<b>99.0</b>	<b>72.9</b>	<b>17.8</b>	<b>68.2</b>	<b>X</b>
	Process Heating	19.6	X	18.7	20.8	76.2	X
	Process Cooling and Refrigeration	19.6	99.0	X	57.7	93.5	X

Machine Drive	22.9	99.0	99.0	41.8	91.1	X
Electro-Chemical Processes	54.0	--	--	--	--	--
Other Process Use	62.7	X	77.4	63.6	76.6	X
<b>Direct Uses—Total Nonprocess</b>	<b>18.0</b>	<b>X</b>	<b>47.4</b>	<b>26.4</b>	<b>29.6</b>	<b>X</b>
Facility HVAC	17.7	X	80.0	26.0	62.8	X
Facility Lighting	27.7	--	--	--	--	--
Other Facility Support	17.6	X	84.9	40.9	68.0	X
Onsite Transportation	40.1	--	56.5	84.9	30.0	--
Conventional Electricity Generation	--	X	73.6	97.3	91.7	X
Other Nonprocess Use	59.3	X	95.4	X	96.5	X
<b>End use not reported</b>	<b>51.2</b>	<b>X</b>	<b>X</b>	<b>60.4</b>	<b>64.9</b>	<b>X</b>

**327 Nonmetallic mineral products**

<b>Total fuel consumption</b>	<b>26.3</b>	<b>0.0</b>	<b>23.7</b>	<b>4.9</b>	<b>19.6</b>	<b>10.5</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>23.9</b>	<b>0.0</b>	<b>80.1</b>	<b>12.5</b>	<b>70.6</b>	<b>X</b>
Conventional Boiler Use	23.9	X	X	13.6	96.1	X
CHP and/or Cogeneration Process	--	0.0	80.1	15.8	72.8	X
<b>Direct Uses—Total Process</b>	<b>24.1</b>	<b>X</b>	<b>39.4</b>	<b>5.2</b>	<b>33.9</b>	<b>10.5</b>
Process Heating	4.4	X	3.1	5.2	42.9	10.6
Process Cooling and Refrigeration	26.2	X	X	11.6	X	X
Machine Drive	34.9	X	39.8	12.4	39.2	0.0
Electro-Chemical Processes	32.7	--	--	--	--	--
Other Process Use	1.0	X	71.5	28.0	88.9	X
<b>Direct Uses—Total Nonprocess</b>	<b>40.2</b>	<b>0.0</b>	<b>22.4</b>	<b>6.3</b>	<b>24.4</b>	<b>0.0</b>
Facility HVAC	35.8	0.0	62.1	8.3	35.8	0.0
Facility Lighting	43.7	--	--	--	--	--
Other Facility Support	6.4	X	73.8	3.4	56.1	X
Onsite Transportation	72.7	--	23.2	10.4	26.6	--
Conventional Electricity Generation	--	0.0	83.6	0.1	X	X
Other Nonprocess Use	4.6	X	74.0	7.6	0.3	X
<b>End use not reported</b>	<b>45.1</b>	<b>X</b>	<b>87.0</b>	<b>19.8</b>	<b>47.2</b>	<b>X</b>

**327120 Clay building material and refractories**

<b>Total fuel consumption</b>	<b>2.5</b>	<b>X</b>	<b>1.9</b>	<b>3.9</b>	<b>1.8</b>	<b>0.0</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>16.0</b>	<b>X</b>	<b>X</b>	<b>8.2</b>	<b>90.8</b>	<b>X</b>
Conventional Boiler Use	16.0	X	X	4.6	X	X
CHP and/or Cogeneration Process	--	X	X	8.3	90.8	X
<b>Direct Uses—Total Process</b>	<b>2.7</b>	<b>X</b>	<b>2.5</b>	<b>4.1</b>	<b>0.3</b>	<b>0.0</b>
Process Heating	4.2	X	0.1	4.1	0.2	0.0
Process Cooling and Refrigeration	4.8	X	X	56.0	X	X
Machine Drive	3.3	X	8.9	2.0	5.5	X

Electro-Chemical Processes	1.8	--	--	--	--	--
Other Process Use	36.7	X	0.0	0.2	X	X
<b>Direct Uses—Total Nonprocess</b>	<b>4.3</b>	<b>X</b>	<b>2.1</b>	<b>7.8</b>	<b>3.5</b>	<b>X</b>
Facility HVAC <sup>C</sup>	4.4	X	X	8.1	1.8	X
Facility Lighting	4.3	--	--	--	--	--
Other Facility Support	4.4	X	X	7.8	51.6	X
Onsite Transportation	11.9	--	1.5	91.4	3.7	--
Conventional Electricity Generation	--	X	21.1	0.0	X	X
Other Nonprocess Use	15.6	X	7.0	X	61.0	X
<b>End use not reported</b>	<b>14.2</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>61.8</b>	<b>X</b>

**327211 Flat glass**

<b>Total fuel consumption</b>	1.2	X	0.0	0.1	0.0	X
<b>Indirect Uses—Boiler Fuel</b>	0.0	X	X	0.0	X	X
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses—Total Process</b>	<b>1.1</b>	<b>X</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>X</b>
Process Heating	1.3	X	0.0	0.1	0.0	X
Process Cooling and Refrigeration	1.9	X	X	0.0	X	X
Machine Drive	0.5	X	X	X	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	11.2	X	0.0	1.1	X	X
<b>Direct Uses—Total Nonprocess</b>	<b>2.1</b>	<b>X</b>	<b>0.0</b>	<b>0.4</b>	<b>0.0</b>	<b>X</b>
Facility HVAC <sup>C</sup>	1.9	X	X	0.6	0.0	X
Facility Lighting	3.1	--	--	--	--	--
Other Facility Support	3.3	X	X	0.0	0.0	X
Onsite Transportation	1.3	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	0.0	X	X	0.0	X	X
<b>End use not reported</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>

**327212 Other pressed and blown glass and glassware**

<b>Total fuel consumption</b>	0.7	X	0.0	0.5	36.6	X
<b>Indirect Uses—Boiler Fuel</b>	5.4	X	X	0.0	0.0	X
Conventional Boiler Use	5.4	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	0.0	X
<b>Direct Uses—Total Process</b>	<b>0.8</b>	<b>X</b>	<b>0.0</b>	<b>0.5</b>	<b>39.1</b>	<b>X</b>
Process Heating	1.3	X	X	0.5	39.2	X
Process Cooling and Refrigeration	0.5	X	X	0.0	X	X
Machine Drive	0.6	X	0.0	0.0	X	X
Electro-Chemical Processes	0.0	--	--	--	--	--



Other Process Use	0.0	X	X	0.0	60.5	X
<b>Direct Uses—Total Nonprocess</b>	<b>0.8</b>	<b>X</b>	<b>0.0</b>	<b>1.5</b>	<b>39.2</b>	<b>X</b>
Facility HVAC <sup>C</sup>	0.9	X	X	1.7	70.2	X
Facility Lighting	0.6	--	--	--	--	--
Other Facility Support	1.5	X	X	0.0	71.6	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	0.0	X	X	X
<b>End use not reported</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>	<b>X</b>

**327213 Glass containers**

<b>Total fuel consumption</b>	<b>0.1</b>	<b>X</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>X</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>0.0</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>X</b>	<b>X</b>
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses—Total Process</b>	<b>0.1</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.1	X	X	0.0	X	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	X	0.0	X	X
<b>Direct Uses—Total Nonprocess</b>	<b>0.1</b>	<b>X</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>X</b>
Facility HVAC <sup>C</sup>	0.1	X	0.0	0.1	X	X
Facility Lighting	0.1	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	X	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	X	0.0	X	X
<b>End use not reported</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

**327215 Glass products from purchased glass**

<b>Total fuel consumption</b>	<b>2.1</b>	<b>X</b>	<b>43.7</b>	<b>1.7</b>	<b>28.1</b>	<b>X</b>
<b>Indirect Uses—Boiler Fuel</b>	<b>4.5</b>	<b>X</b>	<b>X</b>	<b>10.4</b>	<b>X</b>	<b>X</b>
Conventional Boiler Use	4.5	X	X	22.0	X	X
CHP and/or Cogeneration Process	--	X	X	2.0	X	X
<b>Direct Uses—Total Process</b>	<b>2.2</b>	<b>X</b>	<b>X</b>	<b>1.6</b>	<b>39.3</b>	<b>X</b>
Process Heating	3.5	X	X	1.7	49.6	X
Process Cooling and Refrigeration	4.5	X	X	1.7	X	X
Machine Drive	4.6	X	X	3.6	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.9	X	X	1.2	0.0	X

	<b>Direct Uses—Total Nonprocess</b>	2.6	X	43.7	4.2	8.1	X
	Facility HVAC <sup>f</sup>	2.5	X	75.4	4.9	16.6	X
	Facility Lighting	3.3	--	--	--	--	--
	Other Facility Support	3.8	X	0.0	8.2	X	X
	Onsite Transportation	2.5	--	5.5	2.8	8.1	--
	Conventional Electricity Generation	--	X	X	14.3	X	X
	Other Nonprocess Use	3.1	X	0.0	2.6	0.0	X
	<b>End use not reported</b>	24.9	X	X	35.1	57.0	X
<b>327310</b>	<b>Cements</b>						
	<b>Total fuel consumption</b>	6.1	X	3.1	2.1	0.5	13.8
	<b>Indirect Uses—Boiler Fuel</b>	19.7	X	X	0.0	0.0	X
	Conventional Boiler Use	19.7	X	X	0.0	0.0	X
	CHP and/or Cogeneration Process	--	X	X	0.0	X	X
	<b>Direct Uses—Total Process</b>	6.2	X	3.9	2.1	6.6	13.8
	Process Heating	3.7	X	3.6	2.3	0.0	13.8
	Process Cooling and Refrigeration	0.0	X	X	X	X	X
	Machine Drive	7.6	X	0.1	0.0	66.8	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.7	X	16.4	X	X	X
	<b>Direct Uses—Total Nonprocess</b>	4.0	X	3.3	2.2	0.0	0.0
	Facility HVAC <sup>f</sup>	3.1	X	0.0	2.3	0.0	0.0
	Facility Lighting	3.9	--	--	--	--	--
	Other Facility Support	15.1	X	X	0.0	0.0	X
	Onsite Transportation	0.0	--	3.3	X	0.0	--
	Conventional Electricity Generation	--	X	X	X	X	X
	Other Nonprocess Use	11.5	X	92.6	X	0.0	X
	<b>End use not reported</b>	X	X	0.0	X	0.0	X
<b>327410</b>	<b>Lime</b>						
	<b>Total fuel consumption</b>	0.0	X	0.0	0.0	0.0	0.0
	<b>Indirect Uses—Boiler Fuel</b>	X	X	X	0.0	X	X
	Conventional Boiler Use	X	X	X	0.0	X	X
	CHP and/or Cogeneration Process	--	X	X	X	X	X
	<b>Direct Uses—Total Process</b>	0.0	X	0.0	0.0	0.0	0.0
	Process Heating	0.0	X	0.0	0.0	0.0	0.0
	Process Cooling and Refrigeration	0.0	X	X	X	X	X
	Machine Drive	0.0	X	0.0	0.0	0.0	0.0
	Electro-Chemical Processes	X	--	--	--	--	--
	Other Process Use	0.0	X	0.0	0.0	0.0	X
	<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X

Facility HVAC <sup>f</sup>	0.0	X	0.0	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	X	X
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	0.0	X	0.0	X
<b>End use not reported</b>	X	X	X	X	0.0	X

**327420 Gypsum**

<b>Total fuel consumption</b>	3.3	0.0	4.7	2.9	6.4	X
<b>Indirect Uses—Boiler Fuel</b>	0.0	0.0	0.0	0.0	X	X
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	0.0	0.0	0.0	X	X
<b>Direct Uses—Total Process</b>	4.1	X	3.6	3.3	0.0	X
Process Heating	3.7	X	0.0	3.7	0.0	X
Process Cooling and Refrigeration	2.0	X	X	0.5	X	X
Machine Drive	5.1	X	15.0	0.3	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	X
<b>Direct Uses—Total Nonprocess</b>	0.6	0.0	5.2	0.5	6.5	X
Facility HVAC <sup>f</sup>	0.7	0.0	0.0	1.1	0.0	X
Facility Lighting	1.2	--	--	--	--	--
Other Facility Support	0.7	X	0.0	0.4	X	X
Onsite Transportation	0.5	--	5.2	0.0	6.5	--
Conventional Electricity Generation	--	0.0	X	0.0	X	X
Other Nonprocess Use	0.0	X	X	0.0	X	X
<b>End use not reported</b>	X	X	X	X	X	X

**327993 Mineral wool**

<b>Total fuel consumption</b>	13.0	X	0.0	16.9	67.3	0.0
<b>Indirect Uses—Boiler Fuel</b>	0.0	X	X	0.0	X	X
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses—Total Process</b>	11.7	X	0.0	18.1	45.1	0.0
Process Heating	22.6	X	0.0	18.6	0.0	0.0
Process Cooling and Refrigeration	0.2	X	X	0.0	X	X
Machine Drive	4.1	X	0.0	0.0	47.1	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	X
<b>Direct Uses—Total Nonprocess</b>	20.3	X	0.0	4.5	68.7	X
Facility HVAC <sup>f</sup>	19.3	X	0.0	4.8	90.7	X

	Facility Lighting	20.4	--	--	--	--	--
	Other Facility Support	28.3	X	X	3.3	0.0	X
	Onsite Transportation	34.2	--	0.0	0.0	67.0	--
	Conventional Electricity Generation	--	X	0.0	X	X	X
	Other Nonprocess Use	0.0	X	0.0	X	0.0	X
	<b>End use not reported</b>	0.0	X	X	X	X	X
<b>331</b>	<b>Primary metals</b>						
	<b>Total fuel consumption</b>	0.2	0.0	11.7	0.2	4.1	0.1
	<b>Indirect Uses—Boiler Fuel</b>	1.1	0.0	1.0	0.3	0.1	0.0
	Conventional Boiler Use	1.1	0.0	0.0	0.8	0.1	X
	CHP and/or Cogeneration Process	--	0.0	1.0	0.4	0.3	0.0
	<b>Direct Uses—Total Process</b>	0.2	X	4.4	0.2	3.8	0.0
	Process Heating	0.5	X	2.5	0.3	5.2	0.0
	Process Cooling and Refrigeration	0.5	X	91.3	0.8	1.7	X
	Machine Drive	0.4	X	6.5	1.3	3.4	X
	Electro-Chemical Processes	0.1	--	--	--	--	--
	Other Process Use	0.6	X	0.1	0.3	2.3	0.0
	<b>Direct Uses—Total Nonprocess</b>	0.5	0.0	0.3	0.8	7.7	1.8
	Facility HVAC <sup>f</sup>	0.7	X	0.4	0.6	3.3	66.3
	Facility Lighting	0.8	--	--	--	--	--
	Other Facility Support	0.5	X	0.0	1.5	13.1	X
	Onsite Transportation	0.9	--	0.3	1.9	7.5	--
	Conventional Electricity Generation	--	X	0.4	18.0	0.0	X
	Other Nonprocess Use	0.3	0.0	6.8	20.4	62.2	0.0
	<b>End use not reported</b>	20.7	X	43.0	32.1	25.3	0.0
<b>33110</b>	<b>Iron and steel mills and ferroalloys</b>						
	<b>Total fuel consumption</b>	0.0	0.0	0.0	0.0	0.0	0.0
	<b>Indirect Uses—Boiler Fuel</b>	0.0	0.0	X	0.0	0.0	0.0
	Conventional Boiler Use	0.0	0.0	X	0.0	X	X
	CHP and/or Cogeneration Process	--	0.0	X	0.0	0.0	0.0
	<b>Direct Uses—Total Process</b>	0.0	X	0.0	0.0	0.0	0.0
	Process Heating	0.0	X	0.0	0.0	0.0	0.0
	Process Cooling and Refrigeration	0.0	X	X	0.0	0.0	X
	Machine Drive	D	X	0.0	0.0	0.0	X
	Electro-Chemical Processes	D	--	--	--	--	--
	Other Process Use	0.0	X	0.0	0.0	0.0	0.0
	<b>Direct Uses—Total Nonprocess</b>	0.0	0.0	0.0	0.0	0.0	0.0
	Facility HVAC <sup>f</sup>	0.0	X	0.0	0.0	0.0	X
	Facility Lighting	0.0	--	--	--	--	--

Other Facility Support	0.0	X	0.0	0.0	0.0	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	X	0.0	X
Other Nonprocess Use	0.0	0.0	0.0	0.0	0.0	0.0
<b>End use not reported</b>	X	X	0.0	X	0.0	0.0

### 3312 Steel products from purchased steel

<b>Total fuel consumption</b>	3.4	X	37.3	3.6	9.0	X
<b>Indirect Uses—Boiler Fuel</b>	1.6	X	X	4.7	3.2	X
Conventional Boiler Use	1.6	X	X	8.6	X	X
CHP and/or Cogeneration Process	--	X	X	4.2	3.2	X
<b>Direct Uses—Total Process</b>	3.3	X	30.8	4.4	19.0	X
Process Heating	6.6	X	X	4.6	37.5	X
Process Cooling and Refrigeration	3.7	X	X	2.5	49.5	X
Machine Drive	4.0	X	30.8	13.1	16.4	X
Electro-Chemical Processes	6.9	--	--	--	--	--
Other Process Use	10.9	X	0.0	X	51.4	X
<b>Direct Uses—Total Nonprocess</b>	5.1	X	4.8	4.9	11.1	X
Facility HVAC	5.3	X	0.0	3.2	30.1	X
Facility Lighting	6.6	--	--	--	--	--
Other Facility Support	3.7	X	0.0	8.9	24.0	X
Onsite Transportation	4.1	--	4.9	6.4	12.0	--
Conventional Electricity Generation	--	X	85.8	0.0	X	X
Other Nonprocess Use	23.7	X	15.7	36.8	X	X
<b>End use not reported</b>	86.9	X	43.1	X	0.0	X

### 3313 Alumina and aluminum production and processing

<b>Total fuel consumption</b>	0.2	X	0.0	0.1	16.9	X
<b>Indirect Uses—Boiler Fuel</b>	1.4	X	X	0.1	0.1	X
Conventional Boiler Use	1.4	X	X	0.3	X	X
CHP and/or Cogeneration Process	--	X	X	0.1	0.1	X
<b>Direct Uses—Total Process</b>	0.2	X	0.0	0.1	0.0	X
Process Heating	1.4	X	X	0.1	0.0	X
Process Cooling and Refrigeration	2.1	X	X	0.4	0.0	X
Machine Drive	D	X	0.0	1.8	0.0	X
Electro-Chemical Processes	D	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses—Total Nonprocess</b>	0.5	X	0.0	0.5	21.3	X
Facility HVAC	0.5	X	0.0	0.7	0.0	X
Facility Lighting	0.7	--	--	--	--	--
Other Facility Support	0.5	X	X	0.1	0.0	X

Onsite Transportation	0.2	--	0.0	0.3	21.5	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
<b>End use not reported</b>	<b>61.0</b>	<b>X</b>	<b>X</b>	<b>0.0</b>	<b>0.0</b>	<b>X</b>

**331314 Secondary smelting and alloying of aluminum**

<b>Total fuel consumption</b>	0.0	X	0.0	0.0	0.0	X
<b>Indirect Uses—Boiler Fuel</b>	X	X	X	0.0	X	X
Conventional Boiler Use	X	X	X	X	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses—Total Process</b>	0.0	X	0.0	0.0	0.0	X
Process Heating	0.0	X	X	0.0	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.0	X	0.0	0.0	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	X	0.0	0.0	X
<b>Direct Uses—Total Nonprocess</b>	0.0	X	0.0	0.0	0.0	X
Facility HVAC	0.0	X	X	0.0	0.0	X
Facility Lighting	0.0	--	--	--	--	--
Other Facility Support	0.0	X	X	0.0	X	X
Onsite Transportation	0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	0.0	X	X	X	X	X
<b>End use not reported</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

**331315 Aluminum sheet, plate and foils**

<b>Total fuel consumption</b>	0.4	X	0.0	0.1	0.5	X
<b>Indirect Uses—Boiler Fuel</b>	0.0	X	X	0.0	0.0	X
Conventional Boiler Use	0.0	X	X	0.0	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	0.0	X
<b>Direct Uses—Total Process</b>	0.4	X	0.0	0.1	0.0	X
Process Heating	1.9	X	X	0.1	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.2	X	0.0	0.0	X	X
Electro-Chemical Processes	X	--	--	--	--	--
Other Process Use	0.0	X	X	0.0	0.0	X
<b>Direct Uses—Total Nonprocess</b>	0.6	X	0.0	0.1	0.7	X
Facility HVAC	0.6	X	0.0	0.1	0.0	X
Facility Lighting	0.9	--	--	--	--	--
Other Facility Support	0.2	X	X	0.0	X	X
Onsite Transportation	0.0	--	0.0	0.0	0.7	--

Conventional Electricity Generation	--	X	X	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
<b>End use not reported</b>	0.0	X	X	0.0	X	X

**331318 Other aluminum rolling, drawing and extruding**

<b>Total fuel consumption</b>	1.4	X	0.0	0.7	26.7	X
<b>Indirect Uses—Boiler Fuel</b>	4.1	X	X	D	0.7	X
Conventional Boiler Use	4.1	X	X	1.5	X	X
CHP and/or Cogeneration Process	--	X	X	D	0.7	X
<b>Direct Uses—Total Process</b>	1.4	X	0.0	D	0.0	X
Process Heating	1.8	X	X	D	0.0	X
Process Cooling and Refrigeration	8.0	X	X	1.4	0.0	X
Machine Drive	1.1	X	X	5.0	0.0	X
Electro-Chemical Processes	19.7	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	0.0	X
<b>Direct Uses—Total Nonprocess</b>	1.9	X	0.0	D	33.0	X
Facility HVAC	1.9	X	X	D	0.0	X
Facility Lighting	2.2	--	--	--	--	--
Other Facility Support	2.8	X	X	0.3	0.0	X
Onsite Transportation	5.1	--	0.0	0.3	33.2	--
Conventional Electricity Generation	--	X	X	X	X	X
Other Nonprocess Use	0.0	X	X	X	0.0	X
<b>End use not reported</b>	68.6	X	X	X	0.0	X

**3314 Nonferrous metal (except aluminum) production and processing**

<b>Total fuel consumption</b>	1.2	X	3.8	1.2	5.9	X
<b>Indirect Uses—Boiler Fuel</b>	2.4	X	0.0	1.2	0.0	X
Conventional Boiler Use	2.4	X	0.0	0.3	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	1.6	0.0	X
<b>Direct Uses—Total Process</b>	1.0	X	28.6	1.6	1.3	X
Process Heating	1.6	X	0.0	1.8	1.4	X
Process Cooling and Refrigeration	0.9	X	91.3	47.1	X	X
Machine Drive	2.0	X	63.6	2.4	9.1	X
Electro-Chemical Processes	1.4	--	--	--	--	--
Other Process Use	0.7	X	0.0	2.7	0.0	X
<b>Direct Uses—Total Nonprocess</b>	2.6	X	2.9	2.7	19.7	X
Facility HVAC	2.9	X	0.0	2.1	6.5	X
Facility Lighting	3.2	--	--	--	--	--
Other Facility Support	2.6	X	X	5.7	17.2	X
Onsite Transportation	6.8	--	2.7	3.3	5.8	--
Conventional Electricity Generation	--	X	0.5	47.6	0.0	X

	Other Nonprocess Use	19.3	X	75.0	31.2	65.2	X
	<b>End use not reported</b>	10.0	X	0.0	47.6	0.0	X
<b>331410</b>	<b>Nonferrous metal (except aluminum) smelting and refining</b>						
	<b>Total fuel consumption</b>	0.1	X	0.0	0.4	8.1	X
	<b>Indirect Uses—Boiler Fuel</b>	0.0	X	0.0	0.0	0.0	X
	Conventional Boiler Use	0.0	X	0.0	0.0	X	X
	CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
	<b>Direct Uses—Total Process</b>	0.1	X	0.0	0.1	2.3	X
	Process Heating	0.0	X	0.0	0.1	0.0	X
	Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
	Machine Drive	0.1	X	0.0	0.0	49.1	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.5	X	0.0	0.0	0.0	X
	<b>Direct Uses—Total Nonprocess</b>	1.9	X	0.0	3.0	14.9	X
	Facility HVAC <sup>C</sup>	1.8	X	X	3.3	0.0	X
	Facility Lighting	1.2	--	--	--	--	--
	Other Facility Support	3.8	X	X	1.7	0.0	X
	Onsite Transportation	0.0	--	0.0	3.4	16.2	--
	Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
	Other Nonprocess Use	X	X	X	X	X	X
	<b>End use not reported</b>	44.5	X	X	47.6	0.0	X
<b>3315</b>	<b>Foundries</b>						
	<b>Total fuel consumption</b>	1.3	X	2.8	1.3	4.9	66.3
	<b>Indirect Uses—Boiler Fuel</b>	14.2	X	64.6	6.4	1.0	X
	Conventional Boiler Use	14.2	X	X	1.2	0.9	X
	CHP and/or Cogeneration Process	--	X	64.6	8.1	21.7	X
	<b>Direct Uses—Total Process</b>	1.4	X	12.5	1.6	13.7	X
	Process Heating	2.7	X	28.6	1.6	19.7	X
	Process Cooling and Refrigeration	2.1	X	X	3.2	63.0	X
	Machine Drive	1.1	X	1.1	4.2	2.1	X
	Electro-Chemical Processes	14.7	--	--	--	--	--
	Other Process Use	2.8	X	0.3	14.7	5.1	X
	<b>Direct Uses—Total Nonprocess</b>	1.3	X	2.5	1.8	2.0	66.3
	Facility HVAC <sup>C</sup>	1.7	X	25.4	1.8	2.2	66.3
	Facility Lighting	2.0	--	--	--	--	--
	Other Facility Support	1.7	X	0.0	5.3	44.0	X
	Onsite Transportation	2.1	--	2.6	23.4	2.5	--
	Conventional Electricity Generation	--	X	0.1	0.0	0.0	X
	Other Nonprocess Use	1.8	X	0.0	0.1	57.6	X



<b>End use not reported</b>		10.5	X	0.0	69.8	43.6	X
<b>331511</b>	<b>Iron foundries</b>						
<b>Total fuel consumption</b>		2.2	X	1.8	1.2	1.9	66.3
<b>Indirect Uses—Boiler Fuel</b>		51.9	X	65.1	1.7	12.8	X
Conventional Boiler Use		51.9	X	X	2.5	0.0	X
CHP and/or Cogeneration Process		--	X	65.1	2.4	47.5	X
<b>Direct Uses—Total Process</b>		2.3	X	0.0	1.3	0.1	X
Process Heating		4.3	X	X	1.6	0.3	X
Process Cooling and Refrigeration		4.8	X	X	X	0.0	X
Machine Drive		1.4	X	0.0	2.8	0.8	X
Electro-Chemical Processes		51.2	--	--	--	--	--
Other Process Use		6.8	X	0.0	14.2	0.1	X
<b>Direct Uses—Total Nonprocess</b>		3.2	X	1.5	2.0	2.5	66.3
Facility HVAC <sup>C</sup>		4.0	X	28.9	2.0	1.0	66.3
Facility Lighting		4.5	--	--	--	--	--
Other Facility Support		2.7	X	0.0	4.8	53.5	X
Onsite Transportation		1.8	--	1.5	27.0	4.1	--
Conventional Electricity Generation		--	X	0.0	0.0	0.0	X
Other Nonprocess Use		0.0	X	X	0.0	70.3	X
<b>End use not reported</b>		0.0	X	0.0	X	0.0	X
<b>331523</b>	<b>Nonferrous metal die-casting foundries</b>						
<b>Total fuel consumption</b>		2.3	X	6.3	3.1	13.9	X
<b>Indirect Uses—Boiler Fuel</b>		0.5	X	X	15.1	5.9	X
Conventional Boiler Use		0.5	X	X	0.0	0.0	X
CHP and/or Cogeneration Process		--	X	X	16.3	65.7	X
<b>Direct Uses—Total Process</b>		2.8	X	38.0	3.5	28.7	X
Process Heating		4.0	X	X	3.3	34.6	X
Process Cooling and Refrigeration		4.5	X	X	0.0	0.0	X
Machine Drive		2.8	X	40.1	9.6	2.8	X
Electro-Chemical Processes		29.5	--	--	--	--	--
Other Process Use		2.9	X	63.7	28.4	35.6	X
<b>Direct Uses—Total Nonprocess</b>		1.2	X	0.3	3.4	4.8	X
Facility HVAC <sup>C</sup>		1.7	X	X	4.1	1.5	X
Facility Lighting		1.6	--	--	--	--	--
Other Facility Support		1.9	X	X	4.9	40.3	X
Onsite Transportation		1.1	--	0.3	65.2	5.0	--
Conventional Electricity Generation		--	X	X	0.0	X	X
Other Nonprocess Use		0.1	X	X	0.1	75.7	X
<b>End use not reported</b>		X	X	X	X	1.0	X

331524	Aluminum foundries, except die-casting						

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## Machinery

<b>Total fuel consumption</b>	11.0	X	44.3	13.3	35.3	X
<b>Indirect Uses—Boiler Fuel</b>	29.8	X	82.5	37.1	94.2	X
Conventional Boiler Use	29.8	X	X	46.0	X	X
CHP and/or Cogeneration Process	--	X	82.5	49.3	94.2	X
<b>Direct Uses—Total Process</b>	11.7	X	50.0	21.7	55.6	X
Process Heating	22.8	X	31.7	25.0	58.0	X
Process Cooling and Refrigeration	20.4	X	31.7	64.4	X	X
Machine Drive	13.9	X	80.2	42.4	60.8	X
Electro-Chemical Processes	43.6	--	--	--	--	--
Other Process Use	31.0	X	50.8	14.7	68.1	X
<b>Direct Uses—Total Nonprocess</b>	12.6	X	42.1	11.8	30.2	X
Facility HVAC <sup>f</sup>	10.3	X	68.2	11.7	58.1	X
Facility Lighting	12.5	--	--	--	--	--
Other Facility Support	19.5	X	99.0	20.9	96.6	X
Onsite Transportation	56.6	--	35.6	58.6	24.9	--
Conventional Electricity Generation	--	X	28.7	73.1	96.3	X
Other Nonprocess Use	57.3	X	81.5	79.6	0.4	X
<b>End use not reported</b>	49.8	X	0.5	59.6	45.6	X

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## Computer and electronic products

<b>Total fuel consumption</b>	14.8	0.0	29.3	8.8	42.9	X
<b>Indirect Uses—Boiler Fuel</b>	22.2	X	0.0	16.9	0.0	X
Conventional Boiler Use	22.2	X	0.0	6.1	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	31.2	X	X
<b>Direct Uses—Total Process</b>	20.8	0.0	29.4	16.5	94.2	X
Process Heating	11.7	X	32.3	21.3	96.0	X
Process Cooling and Refrigeration	18.0	X	0.0	75.7	X	X
Machine Drive	10.1	X	1.3	59.4	X	X
Electro-Chemical Processes	11.8	--	--	--	--	--
Other Process Use	50.0	0.0	65.1	3.1	84.6	X
<b>Direct Uses—Total Nonprocess</b>	9.0	X	35.8	9.0	54.3	X
Facility HVAC <sup>f</sup>	8.9	X	67.7	7.4	0.0	X
Facility Lighting	11.4	--	--	--	--	--
Other Facility Support	16.0	X	0.0	30.4	0.0	X
Onsite Transportation	33.3	--	88.2	X	65.5	--
Conventional Electricity Generation	--	X	3.6	0.1	X	X
Other Nonprocess Use	22.6	X	16.4	69.3	99.0	X
<b>End use not reported</b>	45.9	X	X	15.8	66.9	X

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## Semiconductors and related devices

<b>Total fuel consumption</b>	2.5	0.0	8.8	5.9	4.6	X
<b>Indirect Uses—Boiler Fuel</b>	12.9	X	0.0	19.4	0.0	X
Conventional Boiler Use	12.9	X	0.0	4.9	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	49.1	X	X
<b>Direct Uses—Total Process</b>	2.0	0.0	28.9	2.1	0.0	X
Process Heating	8.7	X	0.0	2.9	0.0	X
Process Cooling and Refrigeration	2.4	X	0.0	72.3	X	X
Machine Drive	2.5	X	1.3	0.0	X	X
Electro-Chemical Processes	5.9	--	--	--	--	--
Other Process Use	2.4	0.0	91.3	1.6	0.0	X
<b>Direct Uses—Total Nonprocess</b>	5.1	X	1.2	3.4	6.9	X
Facility HVAC <sup>f</sup>	6.0	X	0.9	4.4	0.0	X
Facility Lighting	9.0	--	--	--	--	--
Other Facility Support	5.4	X	0.0	1.8	0.0	X
Onsite Transportation	28.3	--	0.0	X	15.2	--
Conventional Electricity Generation	--	X	0.0	0.1	X	X
Other Nonprocess Use	0.3	X	15.3	0.0	X	X
<b>End use not reported</b>	50.3	X	X	4.1	X	X

**335 Electrical equip., appliances, and components**

<b>Total fuel consumption</b>	10.1	X	50.7	14.4	24.7	X
<b>Indirect Uses—Boiler Fuel</b>	19.8	X	X	42.6	X	X
Conventional Boiler Use	19.8	X	X	46.5	X	X
CHP and/or Cogeneration Process	--	X	X	7.9	X	X
<b>Direct Uses—Total Process</b>	10.9	X	33.1	16.0	50.5	X
Process Heating	21.6	X	X	18.1	50.6	X
Process Cooling and Refrigeration	19.4	X	19.8	87.7	X	X
Machine Drive	15.2	X	27.7	32.5	96.3	X
Electro-Chemical Processes	13.7	--	--	--	--	--
Other Process Use	39.3	X	70.9	73.9	X	X
<b>Direct Uses—Total Nonprocess</b>	13.6	X	53.0	21.3	26.8	X
Facility HVAC <sup>f</sup>	17.5	X	96.3	21.7	79.1	X
Facility Lighting	16.1	--	--	--	--	--
Other Facility Support	17.7	X	X	36.1	77.5	X
Onsite Transportation	32.9	--	63.6	X	28.2	--
Conventional Electricity Generation	--	X	49.1	X	88.8	X
Other Nonprocess Use	53.2	X	70.2	68.4	69.1	X
<b>End use not reported</b>	39.7	X	X	58.6	79.6	X

**336 Transportation equipment**

<b>Total fuel consumption</b>	6.4	96.5	6.5	6.7	26.7	X
<b>Indirect Uses—Boiler Fuel</b>	8.1	X	0.0	7.3	30.0	X
Conventional Boiler Use	8.1	X	0.0	7.7	2.3	X
CHP and/or Cogeneration Process	--	X	0.0	12.8	63.6	X
<b>Direct Uses—Total Process</b>	7.5	X	4.5	8.7	44.1	X
Process Heating	12.0	X	0.0	9.1	58.4	X
Process Cooling and Refrigeration	8.6	X	X	4.7	0.0	X
Machine Drive	9.2	X	6.5	60.4	69.4	X
Electro-Chemical Processes	36.8	--	--	--	--	--
Other Process Use	14.7	X	1.7	15.7	24.4	X
<b>Direct Uses—Total Nonprocess</b>	7.5	96.5	9.9	9.9	28.2	X
Facility HVAC	8.7	96.5	57.9	10.2	59.1	X
Facility Lighting	8.3	--	--	--	--	--
Other Facility Support	12.4	X	0.0	22.7	86.9	X
Onsite Transportation	12.3	--	10.9	40.0	24.2	--
Conventional Electricity Generation	--	X	33.1	4.1	12.4	X
Other Nonprocess Use	11.6	X	3.8	24.2	84.1	X
<b>End use not reported</b>	44.5	X	0.0	2.1	94.8	X

**336110 Automobile and light duty motor vehicle manufacturing**

<b>Total fuel consumption</b>	1.2	X	2.0	0.5	0.3	X
<b>Indirect Uses—Boiler Fuel</b>	1.7	X	X	1.7	X	X
Conventional Boiler Use	1.7	X	X	2.1	X	X
CHP and/or Cogeneration Process	--	X	X	0.0	X	X
<b>Direct Uses—Total Process</b>	0.9	X	0.0	0.3	0.0	X
Process Heating	1.9	X	X	0.3	0.0	X
Process Cooling and Refrigeration	0.6	X	X	0.0	X	X
Machine Drive	1.0	X	0.0	0.0	X	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	1.7	X	0.0	0.0	0.0	X
<b>Direct Uses—Total Nonprocess</b>	2.1	X	2.2	0.5	0.3	X
Facility HVAC	2.4	X	X	0.5	0.0	X
Facility Lighting	1.0	--	--	--	--	--
Other Facility Support	2.1	X	0.0	0.6	X	X
Onsite Transportation	5.9	--	0.0	0.0	0.3	--
Conventional Electricity Generation	--	X	54.9	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	X	0.0	X
<b>End use not reported</b>	0.0	X	0.0	0.0	X	X

**3364 Aerospace product and parts**

<b>Total fuel consumption</b>	5.2	X	2.9	3.1	14.5	X
<b>Indirect Uses—Boiler Fuel</b>	6.9	X	0.0	1.0	30.0	X
Conventional Boiler Use	6.9	X	0.0	2.1	2.3	X
CHP and/or Cogeneration Process	--	X	0.0	0.8	63.6	X
<b>Direct Uses—Total Process</b>	6.4	X	15.5	6.5	39.6	X
Process Heating	6.5	X	0.0	7.6	42.8	X
Process Cooling and Refrigeration	6.5	X	X	11.4	0.0	X
Machine Drive	9.2	X	16.3	10.8	46.7	X
Electro-Chemical Processes	13.5	--	--	--	--	--
Other Process Use	2.2	X	15.5	7.4	20.6	X
<b>Direct Uses—Total Nonprocess</b>	5.1	X	4.0	5.3	7.9	X
Facility HVAC	5.9	X	0.0	5.6	8.3	X
Facility Lighting	5.0	--	--	--	--	--
Other Facility Support	3.8	X	0.0	5.0	28.3	X
Onsite Transportation	6.3	--	5.2	1.3	14.1	--
Conventional Electricity Generation	--	X	5.5	7.5	45.4	X
Other Nonprocess Use	8.3	X	1.6	22.4	4.3	X
<b>End use not reported</b>	34.5	X	X	15.7	64.3	X

**336411 Aircraft**

<b>Total fuel consumption</b>	5.4	X	2.5	4.3	26.3	X
<b>Indirect Uses—Boiler Fuel</b>	3.1	X	0.0	0.0	X	X
Conventional Boiler Use	3.1	X	0.0	0.0	X	X
CHP and/or Cogeneration Process	--	X	0.0	0.0	X	X
<b>Direct Uses—Total Process</b>	9.0	X	0.0	11.6	56.6	X
Process Heating	12.1	X	0.0	12.2	56.8	X
Process Cooling and Refrigeration	14.1	X	X	0.0	0.0	X
Machine Drive	11.9	X	0.0	0.0	0.0	X
Electro-Chemical Processes	23.7	--	--	--	--	--
Other Process Use	6.0	X	X	0.0	X	X
<b>Direct Uses—Total Nonprocess</b>	3.5	X	3.2	5.2	16.7	X
Facility HVAC	4.5	X	X	5.4	51.9	X
Facility Lighting	3.3	--	--	--	--	--
Other Facility Support	4.1	X	0.0	6.5	71.9	X
Onsite Transportation	1.5	--	3.4	0.0	17.2	--
Conventional Electricity Generation	--	X	3.9	0.0	0.0	X
Other Nonprocess Use	0.0	X	5.9	0.0	0.0	X
<b>End use not reported</b>	76.9	X	X	X	69.5	X

**337 Furniture and related products**

<b>Total fuel consumption</b>	50.5	X	47.1	15.9	26.1	84.0
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	<b>Indirect Uses—Boiler Fuel</b>	42.8	X	X	38.9	73.6	X
	Conventional Boiler Use	42.8	X	X	59.0	X	X
	CHP and/or Cogeneration Process	--	X	X	51.6	73.6	X
	<b>Direct Uses—Total Process</b>	43.6	X	99.0	24.3	55.5	X
	Process Heating	30.3	X	X	25.1	67.5	X
	Process Cooling and Refrigeration	87.8	X	X	76.7	X	X
	Machine Drive	39.0	X	99.0	87.5	62.0	X
	Electro-Chemical Processes	43.8	--	--	--	--	--
	Other Process Use	76.7	X	X	X	77.5	X
	<b>Direct Uses—Total Nonprocess</b>	61.3	X	28.1	19.1	27.0	84.0
	Facility HVAC <sup>c</sup>	60.9	X	X	19.4	41.1	84.0
	Facility Lighting	60.9	--	--	--	--	--
	Other Facility Support	55.5	X	X	51.7	90.5	X
	Onsite Transportation	77.3	--	35.8	98.1	28.4	--
	Conventional Electricity Generation	--	X	X	93.0	99.0	X
	Other Nonprocess Use	99.0	X	30.3	X	X	X
	<b>End use not reported</b>	42.2	X	99.0	70.4	99.0	X
<b>339</b>	<b>Miscellaneous</b>						
	<b>Total fuel consumption</b>	16.2	X	47.5	20.5	33.6	X
	<b>Indirect Uses—Boiler Fuel</b>	26.7	X	X	45.2	X	X
	Conventional Boiler Use	26.7	X	X	55.4	X	X
	CHP and/or Cogeneration Process	--	X	X	44.7	X	X
	<b>Direct Uses—Total Process</b>	19.6	X	99.0	32.6	48.1	X
	Process Heating	38.4	X	X	34.6	70.1	X
	Process Cooling and Refrigeration	23.1	X	X	80.0	51.0	X
	Machine Drive	26.9	X	99.0	72.9	71.1	X
	Electro-Chemical Processes	60.1	--	--	--	--	--
	Other Process Use	32.4	X	X	45.1	99.0	X
	<b>Direct Uses—Total Nonprocess</b>	16.2	X	54.0	25.6	36.4	X
	Facility HVAC <sup>c</sup>	17.5	X	75.9	27.2	53.5	X
	Facility Lighting	16.4	--	--	--	--	--
	Other Facility Support	14.2	X	X	36.1	76.6	X
	Onsite Transportation	50.5	--	62.9	93.3	48.8	--
	Conventional Electricity Generation	--	X	53.5	85.3	X	X
	Other Nonprocess Use	34.3	X	43.9	91.5	X	X
	<b>End use not reported</b>	69.8	X	X	61.8	61.5	X

Data source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, *2022 Manufacturing Energy Consumption Survey*

Notes: Totals may not equal sum of components because of independent rounding. The estimates presented in this table are for the total consumption of energy (formerly total inputs of energy) for the production of heat, power, and electricity generation, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy or were extracted from captive (onsite) mines or wells. CHP is defined as combined heat and power. Allocations to specific end uses are made based on reasonable approximations by respondents.

<sup>a</sup> The Bureau of the Census classifies establishments using the 2022 North American Industry Classification System (NAICS)

<sup>a</sup> The Bureau of the Census classifies establishments using the 2022 North American Industry Classification System (NAICS).

<sup>b</sup> *Net demand for electricity* is the sum of purchases, transfers in, and total onsite electricity generation, minus sales and transfers offsite. It is the total amount of electricity used by establishments. *Net demand for electricity* is not directly comparable with *net electricity*, which specifically excludes electricity generated onsite by combustible energy sources.

<sup>c</sup> *Distillate fuel oil* includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

<sup>d</sup> *Natural gas* includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

<sup>e</sup> Hydrocarbon Gas Liquids (*HGL*) include ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas liquids (NGL).

<sup>f</sup> Facility heating, ventilation, and air conditioning (*facility HVAC*) excludes steam and hot water.

\* Estimate less than 0.5.

D=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because relative standard error (RSE) is greater than 50%.

NA=Not available.

-- Estimation is not applicable.

S=Negative value.

X=Not defined because RSE corresponds to a data table value of zero.

*The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure protection of the confidential source data (Project No. 7504703, Disclosure Review Board (DRB) approval number: CBDRB-FY25-0054).*