

Released: August 2025

Next MECS will be fielded in 2027

Table 5.2 End uses of fuel consumption, 2022

Level: National data

Row: End uses within NAICS codes

Column: Energy sources, including net electricity

Unit: Trillion British thermal units

NAICS code ^a	End use	Total	Net electricity ^b	Residual fuel oil	Distillate fuel oil and diesel fuel ^c	Natural gas ^d	HGL (excluding natural gasoline) ^e	Coal (excluding coal coke and breeze)	Other ^f
Total United States									
311 - 339	All manufacturing industries								
	Total fuel consumption	15,742	2,674	13	79	7,087	85	398	5,405
	Indirect Uses—Boiler Fuel	--	47	8	12	2,993	14	97	--
	Conventional Boiler Use	--	47	2	2	869	7	14	--
	CHP and/or Cogeneration Process	--	0	5	9	2,124	7	83	--
	Direct Uses—Total Process	--	2,029	2	25	3,512	44	224	--
	Process Heating	--	241	2	4	2,946	37	205	--
	Process Cooling and Refrigeration	--	217	*	Q	44	*	*	--
	Machine Drive	--	1,352	*	10	250	3	3	--
	Electro-Chemical Processes	--	133	--	--	--	--	--	--
	Other Process Use	--	86	*	9	273	4	16	--
	Direct Uses—Total Nonprocess	--	531	3	39	544	25	*	--
	Facility HVAC ^g	--	273	*	1	412	6	*	--
	Facility Lighting	--	166	--	--	--	--	--	--
	Other Facility Support	--	54	*	*	56	1	*	--
	Onsite Transportation	--	23	--	31	8	18	--	--
	Conventional Electricity Generation	--	--	*	2	43	*	*	--
	Other Nonprocess Use	--	15	2	5	26	1	*	--
	End use not reported	5,593	67	*	4	38	1	77	5,405
311	Food								
	Total fuel consumption	1,235	271	*	14	704	8	93	144
	Indirect Uses—Boiler Fuel	--	10	*	4	394	3	46	--
	Conventional Boiler Use	--	10	*	1	135	Q	6	--
	CHP and/or Cogeneration Process	--	0	*	4	258	1	40	--
	Direct Uses—Total Process	--	207	*	Q	223	3	7	--
	Process Heating	--	12	*	*	172	Q	6	--
	Process Cooling and Refrigeration	--	73	*	Q	14	*	0	--

Machine Drive	--	117	*	Q	22	*	1	--
Electro-Chemical Processes	--	1	--	--	--	--	--	--
Other Process Use	--	5	0	*	15	*	0	--
Direct Uses—Total Nonprocess	--	49	*	7	74	1	0	--
Facility HVAC ⁸	--	23	*	*	51	*	0	--
Facility Lighting	--	16	--	--	--	--	--	--
Other Facility Support	--	6	0	*	19	*	0	--
Onsite Transportation	--	3	--	4	1	1	--	--
Conventional Electricity Generation	--	--	0	1	1	*	0	--
Other Nonprocess Use	--	1	0	2	2	*	0	--
End use not reported	203	5	0	Q	14	*	40	144

3112 Grain and oilseed milling

Total fuel consumption	338	60	*	1	170	*	67	40
Indirect Uses—Boiler Fuel	--	2	*	*	122	*	26	--
Conventional Boiler Use	--	2	*	*	62	0	3	--
CHP and/or Cogeneration Process	--	0	0	0	59	*	24	--
Direct Uses—Total Process	--	53	*	*	43	*	0	--
Process Heating	--	3	*	*	41	*	0	--
Process Cooling and Refrigeration	--	6	0	0	*	0	0	--
Machine Drive	--	42	0	*	2	*	0	--
Electro-Chemical Processes	--	1	--	--	--	--	--	--
Other Process Use	--	1	0	0	1	*	0	--
Direct Uses—Total Nonprocess	--	6	*	*	4	*	0	--
Facility HVAC ⁸	--	3	*	*	3	*	0	--
Facility Lighting	--	2	--	--	--	--	--	--
Other Facility Support	--	1	0	*	1	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	*	0	*	0	--
End use not reported	81	*	0	0	1	*	40	40

311221 Wet corn milling and starch manufacturing

Total fuel consumption	169	27	0	*	69	*	40	32
Indirect Uses—Boiler Fuel	--	1	0	0	49	0	*	--
Conventional Boiler Use	--	1	0	0	16	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	33	0	*	--
Direct Uses—Total Process	--	25	0	*	20	*	0	--
Process Heating	--	1	0	0	20	0	0	--
Process Cooling and Refrigeration	--	5	0	0	*	0	0	--
Machine Drive	--	19	0	*	0	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	0	0	0	*	0	0	--

	Direct Uses—Total Nonprocess	--	1	0	*	1	*	0	--
	Facility HVAC ⁶	--	1	0	*	*	*	0	--
	Facility Lighting	--	1	--	--	--	--	--	--
	Other Facility Support	--	*	0	*	*	*	0	--
	Onsite Transportation	--	*		*	*	*		--
	Conventional Electricity Generation	--	--	0	*	0	0	0	--
	Other Nonprocess Use	--	0	0	*	0	*	0	--
	End use not reported	72	0	0	0	0	0	40	32
31131	Sugar manufacturing								
	Total fuel consumption	167	5			39	*	26	96
	Indirect Uses—Boiler Fuel	--	*	*	*	25	0	19	--
	Conventional Boiler Use	--	*	*	0	4	0	3	--
	CHP and/or Cogeneration Process	--	0	0	*	21	0	16	--
	Direct Uses—Total Process	--	4	0		14	*	7	--
	Process Heating	--	*	0	0	12	0	6	--
	Process Cooling and Refrigeration	--	*	0	0	0	0	0	--
	Machine Drive	--	4	0	*	1	*	1	--
	Electro-Chemical Processes	--	*	--	--	--	--	--	--
	Other Process Use	--	*	0	*	0	0	0	--
	Direct Uses—Total Nonprocess	--	1	0	*	1	*	0	--
	Facility HVAC ⁶	--	*	0	0	*	*	0	--
	Facility Lighting	--	*	--	--	--	--	--	--
	Other Facility Support	--	*	0	0	*	0	0	--
	Onsite Transportation	--	*	--	*	*	*	--	--
	Conventional Electricity Generation	--	--	0	*	*	*	0	--
	Other Nonprocess Use	--	*	0	0	0	*	0	--
	End use not reported	96	0	0	0	0	0	0	96
3114	Fruit and vegetable preserving and specialty foods								
	Total fuel consumption	121	31	*	*	88	1	0	1
	Indirect Uses—Boiler Fuel	--	1	0	*	58	*	0	--
	Conventional Boiler Use	--	1	0	*	17	*	0	--
	CHP and/or Cogeneration Process	--	0	0		41		0	--
	Direct Uses—Total Process	--	22	*	*	19	*	0	--
	Process Heating	--	2	*	0	16	*	0	--
	Process Cooling and Refrigeration	--	11	0	*	*	*	0	--
	Machine Drive	--	9	0		1	*	0	--
	Electro-Chemical Processes	--	*	--	--	--	--	--	--
	Other Process Use	--	*	0	*	2	*	0	--
	Direct Uses—Total Nonprocess	--	7	*	*	11	*	0	--
	Facility HVAC ⁶	--	3	*	*	8	*	0	--
	Facility Lighting	--	2	--	--	--	--	--	--

Other Facility Support	--	1	0	*	1	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	*	0	*	1	*	0	--
End use not reported	2	*	0	*	1	*	0	1

3115 Dairy product manufacturing

Total fuel consumption	171	45	*	2	118	Q	0	Q
Indirect Uses—Boiler Fuel	--	2	*	*	77	Q	0	--
Conventional Boiler Use	--	2	0	*	24	Q	0	--
CHP and/or Cogeneration Process	--	0	*	*	53	*	0	--
Direct Uses—Total Process	--	33	*	*	31	Q	0	--
Process Heating	--	2	0	*	20	Q	0	--
Process Cooling and Refrigeration	--	13	*	*	3	0	0	--
Machine Drive	--	17	*	*	5	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	4	*	0	--
Direct Uses—Total Nonprocess	--	9	*	2	8	*	0	--
Facility HVAC ^c	--	4	*	*	7	*	0	--
Facility Lighting	--	3	--	--	--	--	--	--
Other Facility Support	--	1	0	0	1	*	0	--
Onsite Transportation	--	1	--	2	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	Q	1	0	0	Q	*	0	Q

3116 Animal slaughtering and processing

Total fuel consumption	246	76	*	3	163	2	0	2
Indirect Uses—Boiler Fuel	--	3	*	2	79	1	0	--
Conventional Boiler Use	--	3	0	*	21	1	0	--
CHP and/or Cogeneration Process	--	0	*	1	58	*	0	--
Direct Uses—Total Process	--	57	0	*	45	*	0	--
Process Heating	--	2	0	*	36	*	0	--
Process Cooling and Refrigeration	--	31	0	*	2	--	0	--
Machine Drive	--	24	0	*	4	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	2	*	0	--
Direct Uses—Total Nonprocess	--	13	0	1	28	*	0	--
Facility HVAC ^c	--	6	0	0	16	*	0	--
Facility Lighting	--	4	--	--	--	--	--	--
Other Facility Support	--	2	0	*	11	*	0	--
Onsite Transportation	--	1	--	1	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--

Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	16	2	0	*	11	*	0	2

312 Beverage and tobacco products

Total fuel consumption	265	51	0	*	212	1	1	*
Indirect Uses—Boiler Fuel	--	1	0	*	Q	*	1	--
Conventional Boiler Use	--	1	0	*	15	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	Q	*	1	--
Direct Uses—Total Process	--	39	0	*	50	*	0	--
Process Heating	--	2	0	*	47	*	0	--
Process Cooling and Refrigeration	--	12	0	*	1	*	0	--
Machine Drive	--	23	0	*	2	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	11	0	*	23	1	0	--
Facility HVAC ⁶	--	5	0	*	Q	*	0	--
Facility Lighting	--	3	--	--	--	--	--	--
Other Facility Support	--	1	0	*	1	*	0	--
Onsite Transportation	--	1	--	*	*	1	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	*	1	*	0	--
End use not reported	1	*	0	*	*	*	0	*

3121 Beverages

Total fuel consumption	258	48	0	*	Q	1	1	*
Indirect Uses—Boiler Fuel	--	1	0	*	Q	*	1	--
Conventional Boiler Use	--	1	0	*	13	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	Q	*	1	--
Direct Uses—Total Process	--	37	0	*	50	*	0	--
Process Heating	--	2	0	*	47	*	0	--
Process Cooling and Refrigeration	--	12	0	*	1	*	0	--
Machine Drive	--	22	0	*	2	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	10	0	*	23	1	0	--
Facility HVAC ⁶	--	5	0	*	Q	*	0	--
Facility Lighting	--	3	--	--	--	--	--	--
Other Facility Support	--	1	0	*	1	*	0	--
Onsite Transportation	--	1	--	*	*	1	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	*	1	*	0	--
End use not reported	1	*	0	*	*	*	0	*

3122 Tobacco

Total fuel consumption	7	2	0	*	4	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	*	4	*	0	--
Conventional Boiler Use	--	*	0	*	2	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	2	*	0	--
Direct Uses—Total Process	--	1	0	*	*	*	0	--
Process Heating	--	*	0	*	*	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	1	0	*	*	0	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	--	0	--	0	--	0	--
Direct Uses—Total Nonprocess	--	1	0	*	*	*	0	--
Facility HVAC ⁶	--	1	0	*	*	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	--	0	--	--	--	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	0	*	0	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	*	0	0	0	0	*	0	*

313 Textile mills

Total fuel consumption	57	30	0	*	24	*	*	2
Indirect Uses—Boiler Fuel	--	1	0	*	10	*	*	--
Conventional Boiler Use	--	1	0	*	5	*	*	--
CHP and/or Cogeneration Process	--	0	0	*	5	*	*	--
Direct Uses—Total Process	--	21	0	*	12	*	*	--
Process Heating	--	2	0	*	10	*	*	--
Process Cooling and Refrigeration	--	2	0	0	*	0	*	--
Machine Drive	--	17	0	*	1	*	*	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	7	0	*	1	*	0	--
Facility HVAC ⁶	--	5	0	0	1	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	0	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	0	*	0	0	--
Other Nonprocess Use	--	--	0	--	*	0	0	--
End use not reported	4	1	0	0	0	*	0	2

314 Textile product mills

Total fuel consumption	21	10	0	*	10	Q	0	*
Indirect Uses—Boiler Fuel	--	*	0	*	3	*	0	--
Conventional Boiler Use	--	*	0	*	2	*	0	--
CHP and/or Cogeneration Process	--	0	0	0	1	*	0	--
Direct Uses—Total Process	--	7	0	0	5	*	0	--
Process Heating	--	*	0	0	4	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	6	0	0	*	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	0	0	0	0	--
Direct Uses—Total Nonprocess	--	3	0	*	1	*	0	--
Facility HVAC ⁶	--	2	0	0	1	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	*	0	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	0	0	0	0	0	0	--
End use not reported	2	1	0	0	Q	0	0	*

315 Apparel

Total fuel consumption	3	2	0	*	1	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	*	*	*	0	--
Conventional Boiler Use	--	*	0	*	*	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	*	*	0	--
Direct Uses—Total Process	--	1	0	0	*	*	0	--
Process Heating	--	*	0	0	*	0	0	--
Process Cooling and Refrigeration	--	*	0	0	0	0	0	--
Machine Drive	--	1	0	0	*	*	0	--
Electro-Chemical Processes	--	0	--	--	--	--	--	--
Other Process Use	--	0	0	0	*	0	0	--
Direct Uses—Total Nonprocess	--	1	0	*	*	*	0	--
Facility HVAC ⁶	--	1	0	0	*	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	0	0	*	--	--
Conventional Electricity Generation	--	--	0	0	0	0	0	--
Other Nonprocess Use	--	*	0	*	*	0	0	--
End use not reported	*	*	0	0	*	0	0	*

316 Leather and allied products

Total fuel consumption	3	1	0	*	2	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	*	*	0	0	--
Conventional Boiler Use	--	*	0	0	*	0	0	--

CHP and/or Cogeneration Process	--	0	0	*	*	0	0	--
Direct Uses—Total Process	--	1	0	*	*	*	0	--
Process Heating	--	*	0	*	*	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	*	0	--
Machine Drive	--	*	0	0	*	*	0	--
Electro-Chemical Processes	--	0	--	--	--	--	--	--
Other Process Use	--	*	0	0	0	*	0	--
Direct Uses—Total Nonprocess	--	*	0	*	Q	*	0	--
Facility HVAC ⁶	--	*	0		Q	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	0	0	*	--	--
Conventional Electricity Generation	--	--	0	0	0		0	--
Other Nonprocess Use	--	0	0	*	0	0	0	--
End use not reported	*	*	0	0	0	0	0	*

321 Wood products

Total fuel consumption	414	69	*	11	80	3	*	251
Indirect Uses—Boiler Fuel	--	2	0	1	17	*	0	--
Conventional Boiler Use	--	2	0	1	3	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	14	*	0	--
Direct Uses—Total Process	--	56	*	3	54	1	*	--
Process Heating	--	Q	*	1	50	*	*	--
Process Cooling and Refrigeration	--	1	0	*	*		0	--
Machine Drive	--	47	*	1	2	*	0	--
Electro-Chemical Processes	--	1	--	--	--	--	--	--
Other Process Use	--	1	0	*	2	*	0	--
Direct Uses—Total Nonprocess	--	9	*	7	8	2	0	--
Facility HVAC ⁶	--	4	*	*	7	*	0	--
Facility Lighting	--	4	--	--	--	--	--	--
Other Facility Support	--	1	*	*	*	*	0	--
Onsite Transportation	--	*		6	*	2		--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	Q	*	*	0	--
End use not reported	254	1	0	*	1	*	0	251

321113 Sawmills

Total fuel consumption	199	27	*	7	18	*	0	147
Indirect Uses—Boiler Fuel	--	1	0	1	3	*	0	--
Conventional Boiler Use	--	1	0	1	1	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	2	*	0	--
Direct Uses—Total Process	--	23	*	2	13	*	0	--
Process Heating	--	1	*	1	13	*	0	--

Process Cooling and Refrigeration	--	*	0	0	0	0	0	--
Machine Drive	--	21	*	1	*	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	3	*	4	1	*	0	--
Facility HVAC ⁸	--	1	*	*	1	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	*	*	*	0	--
Onsite Transportation	--	*	*	4	*	*	*	--
Conventional Electricity Generation	--	--	0	*	0	*	0	--
Other Nonprocess Use	--	*	0	*	0	*	0	--
End use not reported	148	*	0	*	1	*	0	147

3212 Veneer, plywood, and engineered wood product manufacturing

Total fuel consumption	144	19	*	1	37	1	0	85
Indirect Uses—Boiler Fuel	--	*	0	*	11	*	0	--
Conventional Boiler Use	--	*	0	*	2	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	9	*	0	--
Direct Uses—Total Process	--	15	*	*	25	*	0	--
Process Heating	--	1	*	*	22	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	*	0	--
Machine Drive	--	14	*	*	1	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	2	*	0	--
Direct Uses—Total Nonprocess	--	3	*	1	2	1	0	--
Facility HVAC ⁸	--	1	*	0	2	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	*	*	*	*	0	--
Onsite Transportation	--	*	--	1	*	1	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	87	1	0	*	*	*	0	85

321219 Reconstituted wood products

Total fuel consumption	72	10	*	*	22	*	0	40
Indirect Uses—Boiler Fuel	--	*	0	*	3	*	0	--
Conventional Boiler Use	--	*	0	0	*	0	0	--
CHP and/or Cogeneration Process	--	0	0	*	2	*	0	--
Direct Uses—Total Process	--	8	*	*	18	*	0	--
Process Heating	--	*	*	*	16	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	8	*	*	1	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--

Other Process Use	--	*	0	0	1	0	0	--
Direct Uses—Total Nonprocess	--	1	*	*	1	*	0	--
Facility HVAC ⁶	--	*	*	0	1	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	*	*	*	0	0	--
Onsite Transportation	--	*	--	*	0	*	--	--
Conventional Electricity Generation	--	--	0	*	0	0	0	--
Other Nonprocess Use	--	0	0	0	0	0	0	--
End use not reported	41	1	0	0	*	0	0	40

3219	Other wood products
-------------	----------------------------

Total fuel consumption	62	21	0	1	21	1	*	17
Indirect Uses—Boiler Fuel	--	*	0	*	2	*	0	--
Conventional Boiler Use	--	*	0	*	1	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	1	*	0	--
Direct Uses—Total Process	--	17	0	*	15	*	*	--
Process Heating	--	Q	0	0	14	*	*	--
Process Cooling and Refrigeration	--	*	0	*	*	0	0	--
Machine Drive	--	11	0	*	*	*	0	--
Electro-Chemical Processes	--	1	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	4	0	1	4	1	0	--
Facility HVAC ⁶	--	2	0	*	4	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	1	*	1	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	*	0	*	0	*	0	--
End use not reported	18	*	0	*	*	*	0	17

322	Paper
------------	--------------

Total fuel consumption	2,003	170	8	4	617	3	32	1,170
Indirect Uses—Boiler Fuel	--	4	7	2	408	*	32	--
Conventional Boiler Use	--	4	2	*	70	*	--	--
CHP and/or Cogeneration Process	--	0	5	2	339	*	32	--
Direct Uses—Total Process	--	139	*	*	174	*	*	--
Process Heating	--	7	*	*	147	*	0	--
Process Cooling and Refrigeration	--	5	0	0	2	0	0	--
Machine Drive	--	125	0	*	22	*	*	--
Electro-Chemical Processes	--	1	--	--	--	--	--	--
Other Process Use	--	2	0	*	3	*	0	--
Direct Uses—Total Nonprocess	--	25	*	2	33	2	*	--
Facility HVAC ⁶	--	10	0	*	20	*	0	--

Facility Lighting	--	9	--	--	--	--	--	--
Other Facility Support	--	3	0	*	2	*	0	--
Onsite Transportation	--	1	--	2	1	2	--	--
Conventional Electricity Generation	--	--	*	*	8	*	*	--
Other Nonprocess Use	--	3	0	*	1	*	0	--
End use not reported	1,173	Q	*	0	Q	*	0	1,170

322110 Pulp mills

Total fuel consumption	345	5	1	1	55	*	2	281
Indirect Uses—Boiler Fuel	--	*	1	*	33	*	2	--
Conventional Boiler Use	--	--	0	--	1	0	0	--
CHP and/or Cogeneration Process	--	0	1	*	32	*	2	--
Direct Uses—Total Process	--	4	0	*	22	0	0	--
Process Heating	--	*	0	*	21	0	0	--
Process Cooling and Refrigeration	--	--	0	0	0	0	0	--
Machine Drive	--	4	0	*	*	0	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	0	0	0	--
Direct Uses—Total Nonprocess	--	*	0	*	*	*	0	--
Facility HVAC ⁶	--	*	0	*	*	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	0	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	0	*	0	0	--
Other Nonprocess Use	--	0	0	*	0	0	0	--
End use not reported	281	0	0	0	0	0	0	281

322120 Paper mills

Total fuel consumption	475	55	2	1	188	*	14	214
Indirect Uses—Boiler Fuel	--	1	2	1	130	*	14	--
Conventional Boiler Use	--	1	*	*	30	*	0	--
CHP and/or Cogeneration Process	--	0	2	1	101	*	14	--
Direct Uses—Total Process	--	48	0	*	53	*	0	--
Process Heating	--	2	0	0	47	--	0	--
Process Cooling and Refrigeration	--	1	0	0	0	0	0	--
Machine Drive	--	44	0	*	6	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	--	0	--	--	0	0	--
Direct Uses—Total Nonprocess	--	7	*	*	4	*	0	--
Facility HVAC ⁶	--	2	0	*	3	*	0	--
Facility Lighting	--	2	--	--	--	--	--	--
Other Facility Support	--	*	0	*	*	*	0	--
Onsite Transportation	--	*	--	*	0	*	--	--

Conventional Electricity Generation	--	--	*	*	*	*	0	--
Other Nonprocess Use	--	2	0	*	1	0	0	--
End use not reported	214	0	0	0	0	*	0	214

322130 Paperboard mills

Total fuel consumption	986	61	3	2	279	*	13	629
Indirect Uses—Boiler Fuel	--	3	2	1	197	*	13	--
Conventional Boiler Use	--	3	1	*	27	0	*	--
CHP and/or Cogeneration Process	--	0	2	1	170	*	13	--
Direct Uses—Total Process	--	50	*	*	65	*	*	--
Process Heating	--	3			52		0	--
Process Cooling and Refrigeration	--	1	0	0	2	0	0	--
Machine Drive	--	44	0	*	9	*	*	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0		2	*	0	--
Direct Uses—Total Nonprocess	--	8	0	1	17	*	*	--
Facility HVAC ⁸	--	3	0	*	7	*	0	--
Facility Lighting	--	3	--	--	--	--	--	--
Other Facility Support	--	1	0	*	2	*	0	--
Onsite Transportation	--	*	--	1	1	*	--	--
Conventional Electricity Generation	--	--	0	0	7	*	*	--
Other Nonprocess Use	--	1	0	0	*	*	0	--
End use not reported	629	0	*	0	0	*	0	629

323 Printing and related support

Total fuel consumption	53	31	*	*	21	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	0	3	*	0	--
Conventional Boiler Use	--	*	0	0	3	*	0	--
CHP and/or Cogeneration Process	--	0	0	0	*	0	0	--
Direct Uses—Total Process	--	20	0	*	9	*	0	--
Process Heating	--	1	0	0	6	*	0	--
Process Cooling and Refrigeration	--	2	0	0	*	0	0	--
Machine Drive	--	17	0	*	2	0	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	0	*	*	0	--
Direct Uses—Total Nonprocess	--	11	*	*	9	*	0	--
Facility HVAC ⁸	--	5	*	0	7	*	0	--
Facility Lighting	--	4	--	--	--	--	--	--
Other Facility Support	--	2	0	0	*	0	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	*	Q	0	0	--
End use not reported	*	*	0	0	*	*	0	*

324	Petroleum and coal products								
	Total fuel consumption	3,543	160	2	7	1,109	29	7	2,231
	Indirect Uses—Boiler Fuel	--	*	*	*	352	5	0	--
	Conventional Boiler Use	--	*	0	*	108	4	0	--
	CHP and/or Cogeneration Process	--	0	*	*	245	1	0	--
	Direct Uses—Total Process	--	150	2	3	707	23	7	--
	Process Heating	--	-3	2	1	628	23	0	--
	Process Cooling and Refrigeration	--	7	0	0	6	*	0	--
	Machine Drive	--	141	0	2	15	1	0	--
	Electro-Chemical Processes	--	4	--	--	--	--	--	--
	Other Process Use	--	1	0	*	57	*	7	--
	Direct Uses—Total Nonprocess	--	9	*	3	44	*	0	--
	Facility HVAC ⁶	--	4	0	*	5	*	0	--
	Facility Lighting	--	3	--	--	--	--	--	--
	Other Facility Support	--	1	0	*	1	*	0	--
	Onsite Transportation	--	*	--	3	*	*	--	--
	Conventional Electricity Generation	--	--	0	*	25	*	0	--
	Other Nonprocess Use	--	*	*	1	12	*	0	--
	End use not reported	2,237	*	*	*	6	*	0	2,231
324110	Petroleum refineries								
	Total fuel consumption	3,314	150	*	3	1,021	27	0	2,112
	Indirect Uses—Boiler Fuel	--	*	*	0	337	5	0	--
	Conventional Boiler Use	--	*	0	0	103	4	0	--
	CHP and/or Cogeneration Process	--	0	*	0	233	1	0	--
	Direct Uses—Total Process	--	143	*	1	640	23	0	--
	Process Heating	--	-4	*	*	574	22	0	--
	Process Cooling and Refrigeration	--	7	0	0	6	*	0	--
	Machine Drive	--	136	0	1	4	*	0	--
	Electro-Chemical Processes	--	4	--	--	--	--	--	--
	Other Process Use	--	1	0	*	55	*	0	--
	Direct Uses—Total Nonprocess	--	7	0	1	39	*	0	--
	Facility HVAC ⁶	--	3	0	*	2	--	0	--
	Facility Lighting	--	3	--	--	--	--	--	--
	Other Facility Support	--	1	0	0	*	*	0	--
	Onsite Transportation	--	*	--	1	*	*	--	--
	Conventional Electricity Generation	--	--	0	*	25	*	0	--
	Other Nonprocess Use	--	*	0	0	11	*	0	--
	End use not reported	2,118	0	*	*	6	*	0	2,112
324121	Asphalt paving mixture and block								

Total fuel consumption	119	5	2	4	53	1	0	54
Indirect Uses—Boiler Fuel	--	*	0	*	4	*	0	--
Conventional Boiler Use	--	*	0	0	*	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	3	*	0	--
Direct Uses—Total Process	--	4	2	2	47	1	0	--
Process Heating	--	*	2	1	38	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	3	0	1	8	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	1	*	0	--
Direct Uses—Total Nonprocess	--	1	*	2	2	*	0	--
Facility HVAC ⁸	--	--	0	--	1	--	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	*	*	*	0	--
Onsite Transportation	--	*	--	1	0	*	--	--
Conventional Electricity Generation	--	--	0	--	0	0	0	--
Other Nonprocess Use	--	*	*	*	0	0	0	--
End use not reported	55	*	0	*	*	0	0	54

324122 Asphalt shingle and coating materials

Total fuel consumption	16	3	0	*	11	*	0	2
Indirect Uses—Boiler Fuel	--	*	0	*	2	*	0	--
Conventional Boiler Use	--	*	0	*	1	*	0	--
CHP and/or Cogeneration Process	--	0	0	0	1	*	0	--
Direct Uses—Total Process	--	2	0	*	8	*	0	--
Process Heating	--	*	0	*	7	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	2	0	*	1	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	--	0	--	1	*	0	--
Facility HVAC ⁸	--	*	0	*	1	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	--	--	--	0	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	0	0	*	0	*	0	--
End use not reported	2	0	0	0	0	0	0	2

324191 Petroleum lubricating oil and grease manufacturing

Total fuel consumption	16	2	0	*	13	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	*	5	*	0	--

Conventional Boiler Use	--	*	0	0	2	0	0	--
CHP and/or Cogeneration Process	--	0	0	*	3	*	0	--
Direct Uses—Total Process	--	2	0	*	6	*	0	--
Process Heating	--	*	0	0	4	0	0	--
Process Cooling and Refrigeration	--	*	0	0	*	*	0	--
Machine Drive	--	1	0	*	2	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	0	0	--
Direct Uses—Total Nonprocess	--	1	0		1	*	0	--
Facility HVAC ⁶	--	*	0	*	1	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	*	*	*	0	--
Onsite Transportation	--		--				--	--
Conventional Electricity Generation	--	--	0	*	0	0	0	--
Other Nonprocess Use	--	*	0	*	*	0	0	--
End use not reported		*	*	0	0	0	0	*

324199 All other petroleum and coal products manufacturing

Total fuel consumption	79	-1	0	*	10	*	7	63
Indirect Uses—Boiler Fuel	--	*	0	0	4	*	0	--
Conventional Boiler Use	--	*	0	0	1	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	4	*	0	--
Direct Uses—Total Process	--	-1	0	*	5	*	7	--
Process Heating	--	*	0	*	5	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	-1	0	*	*	0	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	0	7	--
Direct Uses—Total Nonprocess	--	*	0	*	*	*	0	--
Facility HVAC ⁶	--	*	0	0	*	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	*	*	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	0	0	0	--
Other Nonprocess Use	--	*	0	0	*	*	0	--
End use not reported	63	*	0	0	0	0	0	63

325 Chemicals

Total fuel consumption	3,976	512	*	8	2,585	16	63	791
Indirect Uses—Boiler Fuel	--	14	*	3	1,440	3	17	--
Conventional Boiler Use	--	14	*	*	463	*	7	--
CHP and/or Cogeneration Process	--	0	*	3	978	3	9	--
Direct Uses—Total Process	--	398	0	2	1,059	11	10	--

Process Heating	--	21	0	*	771	7	2	--
Process Cooling and Refrigeration	--	43	0	*	11	*	*	--
Machine Drive	--	278	0	Q	126	*	*	--
Electro-Chemical Processes	--	50	--	--	--	--	--	--
Other Process Use	--	6	0	1	152	3	7	--
Direct Uses—Total Nonprocess	--	71	0	3	81	3	*	--
Facility HVAC ⁸	--	40	0	*	60	*	*	--
Facility Lighting	--	19	--	--	--	--	--	--
Other Facility Support	--	7	0		13	*		--
Onsite Transportation	--	2	--	2	1	2	--	--
Conventional Electricity Generation	--	--	0	*	5	*	*	--
Other Nonprocess Use	--	2	0	*	2	*	*	--
End use not reported	862	30	0	*	4	*	36	791

325110 Petrochemicals

Total fuel consumption	746	27	0	*	405	4	0	309
Indirect Uses—Boiler Fuel	--	2	0	*	181	*	0	--
Conventional Boiler Use	--	2	0	*	50	*	0	--
CHP and/or Cogeneration Process	--	0	0	0	131	*	0	--
Direct Uses—Total Process	--	23	0	*	219	4	0	--
Process Heating	--	1	0	*	181	4	0	--
Process Cooling and Refrigeration	--	2	0	0	0	*	0	--
Machine Drive	--	20	0	*	11	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	27	*	0	--
Direct Uses—Total Nonprocess	--	2	0	*	5	*	0	--
Facility HVAC ⁸	--	1	0	0	*	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	0	2	*	0	--
Onsite Transportation	--	*	--	*	0	*	--	--
Conventional Electricity Generation	--	--	0	*	3	*	0	--
Other Nonprocess Use	--	0	0	*	0	0	0	--
End use not reported	309	0	0	0	0	*	0	309

325120 Industrial gases

Total fuel consumption	190	91	0	*	94	*	0	6
Indirect Uses—Boiler Fuel	--	*	0	*	53	0	0	--
Conventional Boiler Use	--		0		9	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	44	0	0	--
Direct Uses—Total Process	--	70	0	*	41	*	0	--
Process Heating	--	*	0	0	D	*	0	--
Process Cooling and Refrigeration	--	3	0	0	*	0	0	--
Machine Drive	--	69	0	*	D	*	0	--

Electro-Chemical Processes	--	-4	--	--	--	--	--	--
Other Process Use	--	2	0	0	8	*	0	--
Direct Uses—Total Nonprocess	--	3	0	*	*	*	0	--
Facility HVAC ^C	--	2	0	*	*	0	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	0	0	--
Onsite Transportation	--	0	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	0	0	0	0	--
Other Nonprocess Use	--	0	0	*	*	0	0	--
End use not reported	Q	Q	0	0	0	*	0	6

325180 Other basic inorganic chemical manufacturing

Total fuel consumption	401	88	0	*	215	*	24	74
Indirect Uses—Boiler Fuel	--	1	0	*	108	*	6	--
Conventional Boiler Use	--	1	0	--	14	*	6	--
CHP and/or Cogeneration Process	--	0	0	*	94	0	0	--
Direct Uses—Total Process	--	80	0	*	102	*	1	--
Process Heating	--	7	0	*	44	*	1	--
Process Cooling and Refrigeration	--	3	0	0	*	0	0	--
Machine Drive	--	26	0	*	56	*	0	--
Electro-Chemical Processes	--	44	--	--	--	--	--	--
Other Process Use	--	*	0	*	2	*	0	--
Direct Uses—Total Nonprocess	--	7	0	*	5	*	0	--
Facility HVAC ^C	--	3	0	0	4	*	0	--
Facility Lighting	--	2	--	--	--	--	--	--
Other Facility Support	--	1	0	0	1	0	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	0	*	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	91	*	0	*	*	*	17	74

325193 Ethyl alcohol

Total fuel consumption	470	37	0	*	382	*	20	31
Indirect Uses—Boiler Fuel	--	2	0	0	217	0	--	--
Conventional Boiler Use	--	2	0	0	147	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	70	0	*	--
Direct Uses—Total Process	--	33	0	*	157	*	0	--
Process Heating	--	1	0	0	130	0	0	--
Process Cooling and Refrigeration	--	6	0	0	6	0	0	--
Machine Drive	--	26	0	*	13	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	8	*	0	--
Direct Uses—Total Nonprocess	--	2	0	*	8	*	0	--

Facility HVAC ⁶	--	1	0	*	5	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	*	2	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	1	0	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	50	0	0	0	0	*	19	31

325194 Cyclic crudes, intermediate and gum and wood chemicals

Total fuel consumption	102	16	0	1	39	5	0	40
Indirect Uses—Boiler Fuel	--	--	0	*	16	3	0	--
Conventional Boiler Use	--	*	0	*	4	0	0	--
CHP and/or Cogeneration Process	--	0	0	*	12	3	0	--
Direct Uses—Total Process	--	14	0	*	23	3	0	--
Process Heating	--	--	0	*	20	3	0	--
Process Cooling and Refrigeration	--	1	0	0	*	0	0	--
Machine Drive	--	9	0	0	0	*	0	--
Electro-Chemical Processes	--	4	--	--	--	--	--	--
Other Process Use	--	*	0	*	2	0	0	--
Direct Uses—Total Nonprocess	--	2	0	*	*	*	0	--
Facility HVAC ⁶	--	1	0	0	*	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	*	0	*	0	0	0	--
End use not reported	40	0	0	0	0	0	0	40

325199 All other basic organic chemical manufacturing

Total fuel consumption	509	64	*	1	310	*	17	117
Indirect Uses—Boiler Fuel	--	1	*	*	193	*	10	--
Conventional Boiler Use	--	1	*	*	88	*	1	--
CHP and/or Cogeneration Process	--	0	*	*	105	*	9	--
Direct Uses—Total Process	--	53	0	*	112	--	7	--
Process Heating	--	1	0	*	86	*	0	--
Process Cooling and Refrigeration	--	8	0	0	1	*	0	--
Machine Drive	--	37	0	*	2	*	0	--
Electro-Chemical Processes	--	8	--	--	--	--	--	--
Other Process Use	--	*	0	*	23	*	7	--
Direct Uses—Total Nonprocess	--	7	0	1	4	*	0	--
Facility HVAC ⁶	--	3	0	0	3	*	0	--
Facility Lighting	--	2	--	--	--	--	--	--
Other Facility Support	--	1	0	*	*	*	0	--

Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	1	0	*	*	*	0	--
End use not reported	120	3	0	0	*	*	0	117

325211 Plastics materials and resins

Total fuel consumption	683	41	0	1	502	4	0	136
Indirect Uses—Boiler Fuel	--	1	0	*	379	*	0	--
Conventional Boiler Use	--	1	0	*	44	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	335	*	0	--
Direct Uses—Total Process	--	31	0		115	3	0	--
Process Heating	--	3	0	*	98	*	0	--
Process Cooling and Refrigeration	--	Q	0	*	1	*	0	--
Machine Drive	--	30	0	*	8	*	0	--
Electro-Chemical Processes	--	-4	--	--	--	--	--	--
Other Process Use	--	1	0	*	8	3	0	--
Direct Uses—Total Nonprocess	--	8	0	1	7	*	0	--
Facility HVAC ⁶	--	4	0	0	5	*	0	--
Facility Lighting	--	2	--	--	--	--	--	--
Other Facility Support	--	1	0	*	1	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	*	Q	*	0	--
End use not reported	136	*	0	0	*	*	0	136

325212 Synthetic rubber

Total fuel consumption	46	4	0	*	27	*	2	13
Indirect Uses—Boiler Fuel	--	*	0	*	22	0	1	--
Conventional Boiler Use	--	*	0	*	16	0	*	--
CHP and/or Cogeneration Process	--	0	0	0	6	0	*	--
Direct Uses—Total Process	--	3	0	*	4	*	1	--
Process Heating	--	*	0	0	4	*	*	--
Process Cooling and Refrigeration	--	1	0	*	*	*	*	--
Machine Drive	--	2	0		--	--	--	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	1	0	0	--
Direct Uses—Total Nonprocess	--	1	0	*	*	*	*	--
Facility HVAC ⁶	--	*	0	0	*	0	*	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	0	*	--
Onsite Transportation	--	*	--	*	0	*	--	--
Conventional Electricity Generation	--	--	0	*	0	*	*	--
Other Nonprocess Use	--	*	0	*	*	*	0	--

End use not reported		13	0	0	0	0	*	0	13
325220 Artificial and synthetic fibers and filaments									
Total fuel consumption		25	8	0	*	17	*	0	*
Indirect Uses—Boiler Fuel		--	*	0	*	11	*	0	--
Conventional Boiler Use		--	*	0	*	6	0	0	--
CHP and/or Cogeneration Process		--	0	0	*	5	*	0	--
Direct Uses—Total Process		--	6	0	*	2	*	0	--
Process Heating		--	1	0	0	2	*	0	--
Process Cooling and Refrigeration		--	1	0	0	0	0	0	--
Machine Drive		--	4	0			0	0	--
Electro-Chemical Processes		--	*	--	--	--	--	--	--
Other Process Use		--	*	0	0	*	*	0	--
Direct Uses—Total Nonprocess		--	2	0	*	3	*	0	--
Facility HVAC ^c		--	1	0	0	3	*	0	--
Facility Lighting		--	*	--	--	--	--	--	--
Other Facility Support		--	*	0	0	1	*	0	--
Onsite Transportation		--	*	--	*	*	*	--	--
Conventional Electricity Generation		--	--	0	0	*	*	0	--
Other Nonprocess Use		--	*	0	*	0	*	0	--
End use not reported		*	0	0	0	0	0	0	*
325311 Nitrogenous fertilizers									
Total fuel consumption		215	D	0	*	196	*	0	D
Indirect Uses—Boiler Fuel		--	*	0	*	45	*	0	--
Conventional Boiler Use		--	*	0	0	21	*	0	--
CHP and/or Cogeneration Process		--	0	0	*	24	*	0	--
Direct Uses—Total Process		--	15	0	*	146	*	0	--
Process Heating		--	*	0	*	110	*	0	--
Process Cooling and Refrigeration		--	2	0	0	*	*	0	--
Machine Drive		--	11	0	*	1	*	0	--
Electro-Chemical Processes		--	1	--	--	--	--	--	--
Other Process Use		--	*	0	*	35	0	0	--
Direct Uses—Total Nonprocess		--	1	0		1		0	--
Facility HVAC ^c		--	1	0	0	1	*	0	--
Facility Lighting		--	*	--	--	--	--	--	--
Other Facility Support		--	*	0	*	*	*	0	--
Onsite Transportation		--	*	--		0	*	--	--
Conventional Electricity Generation		--	--	0	*	0	0	0	--
Other Nonprocess Use		--	*	0	*	*	*	0	--
End use not reported		6	D	0	*	3	*	0	D
325312 Phosphatic fertilizers									

Total fuel consumption	18	10	*	3	3	*	1	1
Indirect Uses—Boiler Fuel	--	*	*	2	2	*	0	--
Conventional Boiler Use	--	*	*	0	1	0	0	--
CHP and/or Cogeneration Process	--	0	0	2	1	*	0	--
Direct Uses—Total Process	--	5	0	*	1	*	1	--
Process Heating	--	*	0	*	1	*	1	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	5	0	*	0	*	0	--
Electro-Chemical Processes	--	0	--	--	--	--	--	--
Other Process Use	--	0	0	*	0	0	0	--
Direct Uses—Total Nonprocess	--	0	0	0	0	0	0	--
Facility HVAC ⁶	--	*	0	*	*	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	0	0	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	0	0	0	*	*	0	--
End use not reported	5	4	0	*	0	0	0	1

3254 Pharmaceuticals and medicines

Total fuel consumption	120	46	0	*	70	*	*	3
Indirect Uses—Boiler Fuel	--	1	0	*	36	*	0	--
Conventional Boiler Use	--	1	0	*	21	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	15	*	0	--
Direct Uses—Total Process	--	22	0	*	12	*	0	--
Process Heating	--	2	0	*	7	*	0	--
Process Cooling and Refrigeration	--	8	0	*	Q	*	0	--
Machine Drive	--	11	0	*	Q	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	1	*	0	--
Direct Uses—Total Nonprocess	--	23	0	*	22	*	*	--
Facility HVAC ⁶	--	14	0	*	19	*	0	--
Facility Lighting	--	5	--	--	--	--	--	--
Other Facility Support	--	2	0	*	3	*	0	--
Onsite Transportation	--	1	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	Q	0	*	*	*	*	--
End use not reported	4	1	0	0	*	*	0	3

325412 Pharmaceutical preparation

Total fuel consumption	62	22	0	*	38	*	0	1
-------------------------------	----	----	---	---	----	---	---	---

Indirect Uses—Boiler Fuel	--	*	0	*	18	*	0	--
Conventional Boiler Use	--	*	0	*	11	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	7	*	0	--
Direct Uses—Total Process	--	11	0	*	Q	*	0	--
Process Heating	--	1	0	*	5	*	0	--
Process Cooling and Refrigeration	--	3	0	0	Q	0	0	--
Machine Drive	--	6	0	*	Q	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	11	0	*	11	*	0	--
Facility HVAC ⁶	--	7	0	*	9	*	0	--
Facility Lighting	--	2	--	--	--	--	--	--
Other Facility Support	--	1	0		2		0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	Q	0	*	*	*	0	--
End use not reported	2	1	0	0	*	*	0	1

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

Total fuel consumption	7	2	0	*	3	*	0	2
Indirect Uses—Boiler Fuel	--	*	0	0	2	0	0	--
Conventional Boiler Use	--	*	0	0	1	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	1	0	0	--
Direct Uses—Total Process	--	2	0	*	1	0	0	--
Process Heating	--	*	0	0	*	0	0	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	1	0	*	*	0	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	0	0	--
Direct Uses—Total Nonprocess	--	1	0	*	*	*	0	--
Facility HVAC ⁶	--	*	0	*	*	*	0	--
Facility Lighting	--		--	--	--	--	--	--
Other Facility Support	--	*	0	*	*	0	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--		0	*	*	*	0	--
End use not reported	2	*	0	0	0	*	0	2

326 Plastics and rubber products

Total fuel consumption	357	241	*	*	106	4	0	Q
Indirect Uses—Boiler Fuel	--	8	*	*	43	*	0	--
Conventional Boiler Use	--	8	*	*	14	0	0	--
CHP and/or Cogeneration Process	--	0	0	*	29	*	0	--

Direct Uses—Total Process	--	164	*	*	37	Q	0	--
Process Heating	--	21	0	*	27	*	0	--
Process Cooling and Refrigeration	--	24	*	0	*	*	0	--
Machine Drive	--	114	*	*	7	Q	0	--
Electro-Chemical Processes	--	Q	--	--	--	--	--	--
Other Process Use	--	Q	0	*	Q	*	0	--
Direct Uses—Total Nonprocess	--	61	0	*	26	2	0	--
Facility HVAC ⁶	--	32	0	*	24	*	0	--
Facility Lighting	--	22	--	--	--	--	--	--
Other Facility Support	--	4	0	*	2	Q	0	--
Onsite Transportation	--	3	--	*	*	2	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	--	0	--	0	--	0	--
End use not reported	13	Q	0	0	*	*	0	Q

327 Nonmetallic mineral products

Total fuel consumption	1,166	211	*	17	417	3	193	324
Indirect Uses—Boiler Fuel	--	1	*	*	16	*	0	--
Conventional Boiler Use	--	1	0	0	4	*	0	--
CHP and/or Cogeneration Process	--	0	*	*	12	*	0	--
Direct Uses—Total Process	--	174	0	9	376	1	193	--
Process Heating	--	39	0	1	350	1	191	--
Process Cooling and Refrigeration	--	10	0	0	4	0	0	--
Machine Drive	--	118	0	3	20	*	2	--
Electro-Chemical Processes	--	4	--	--	--	--	--	--
Other Process Use	--	3	0	Q	3	*	0	--
Direct Uses—Total Nonprocess	--	34	*	7	24	2	*	--
Facility HVAC ⁶	--	16	*	*	17	*	*	--
Facility Lighting	--	13	--	--	--	--	--	--
Other Facility Support	--	2	0	*	3	*	0	--
Onsite Transportation	--	Q	--	7	2	1	--	--
Conventional Electricity Generation	--	--	0	--	1	0	0	--
Other Nonprocess Use	--	*	0	*	1	*	0	--
End use not reported	328	2	0	Q	1	*	0	324

327120 Clay building material and refractories

Total fuel consumption	39	5	0	*	31	*	1	2
Indirect Uses—Boiler Fuel	--	--	0	0	*	*	0	--
Conventional Boiler Use	--	*	0	0	*	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	*	*	0	--
Direct Uses—Total Process	--	4	0	*	29	*	1	--
Process Heating	--	1	0	*	29	*	1	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--

Machine Drive	--	3	0	*	*	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	0	0	--
Direct Uses—Total Nonprocess	--	1	0	*	1	*	0	--
Facility HVAC ⁸	--	*	0	0	1	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	--	*	0	0	--
Other Nonprocess Use	--	*	0	*	0	*	0	--
End use not reported	2	*	0	0	0	*	0	2

327211 Flat glass

Total fuel consumption	44	5	0	*	38	*	0	*
Indirect Uses—Boiler Fuel	--	--	0	0	2	0	0	--
Conventional Boiler Use	--	*	0	0	*	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	2	0	0	--
Direct Uses—Total Process	--	5	0	*	35	*	0	--
Process Heating	--	2	0	*	35	*	0	--
Process Cooling and Refrigeration	--	1	0	0	*	0	0	--
Machine Drive	--	2	0	0	0	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	0	0	--
Direct Uses—Total Nonprocess	--	1	0	*	1	*	0	--
Facility HVAC ⁸	--	*	0	0	1	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	*	0	0	*	0	0	--
End use not reported	*	0	0	0	*	*	0	*

327212 Other pressed and blown glass and glassware

Total fuel consumption	26	7	0	--	19	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	0	*	*	0	--
Conventional Boiler Use	--	*	0	0	*	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	*	*	0	--
Direct Uses—Total Process	--	6	0	--	18	*	0	--
Process Heating	--	3	0	0	17	*	0	--
Process Cooling and Refrigeration	--	1	0	0	*	0	0	--
Machine Drive	--	2	0	*	*	0	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	0	*	*	0	--

Direct Uses—Total Nonprocess		--	1	0	*	1	*	0	--
Facility HVAC ⁶		--	*	0	0	1	*	0	--
Facility Lighting		--	*	--	--	--	--	--	--
Other Facility Support		--	*	0	0	*	*	0	--
Onsite Transportation		--	*	--	*	*	*	--	--
Conventional Electricity Generation		--	--	0	0	0	0	0	--
Other Nonprocess Use		--	*	0	*	0	0	0	--
End use not reported		*	0	0	0	*	0	0	*
327213	Glass containers								
Total fuel consumption		54	12	0	*	42	*	0	
Indirect Uses—Boiler Fuel		--	*	0	0	*	0	0	--
Conventional Boiler Use		--	*	0	0	*	0	0	--
CHP and/or Cogeneration Process		--	0	0	0	*	0	0	--
Direct Uses—Total Process		--	10	0	0	38	*	0	--
Process Heating		--	6	0	0	31	*	0	--
Process Cooling and Refrigeration		--	1	0	0	2	0	0	--
Machine Drive		--	3	0	0	5	0	0	--
Electro-Chemical Processes		--	*	--	--	--	--	--	--
Other Process Use		--	*	0	0	*	0	0	--
Direct Uses—Total Nonprocess		--	1	0	*	3	*	0	--
Facility HVAC ⁶		--	1	0	*	3	0	0	--
Facility Lighting		--	*	--	--	--	--	--	--
Other Facility Support		--	*	0	0	1	0	0	--
Onsite Transportation		--	*	--	*	0	*	--	--
Conventional Electricity Generation		--	--	0	*	0	0	0	--
Other Nonprocess Use		--	*	0	0	*	0	0	--
End use not reported		*	0	0	0	0	0	0	*
327215	Glass products from purchased glass								
Total fuel consumption		Q	13	0	*	9	*	0	Q
Indirect Uses—Boiler Fuel		--	*	0	0	1	0	0	--
Conventional Boiler Use		--	*	0	0	*	0	0	--
CHP and/or Cogeneration Process		--	0	0	0	*	0	0	--
Direct Uses—Total Process		--	9	0	0	7	*	0	--
Process Heating		--	3	0	0	6	*	0	--
Process Cooling and Refrigeration		--	1	0	0	*	0	0	--
Machine Drive		--	3	0	0	*	*	0	--
Electro-Chemical Processes		--	*	--	--	--	--	--	--
Other Process Use		--	2	0	0	*	*	0	--
Direct Uses—Total Nonprocess		--	3	0	*	2	*	0	--
Facility HVAC ⁶		--	2	0	*	2	*	0	--
Facility Lighting		--	1	--	--	--	--	--	--

Other Facility Support	--	*	0	*	*	0	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	0	*	0	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	Q	*	0	0	*	*	0	Q

327310	Cements
---------------	----------------

Total fuel consumption	362	44	0	3	90	*	121	104
Indirect Uses—Boiler Fuel	--	*	0	0	*	*	0	--
Conventional Boiler Use	--	*	0	0	*	*	0	--
CHP and/or Cogeneration Process	--	0	0	0	--	0	0	--
Direct Uses—Total Process	--	42	0	1	89	*	121	--
Process Heating	--	4	0	1	84	*	121	--
Process Cooling and Refrigeration	--	2	0	0	0	0	0	--
Machine Drive	--	34	0	*	5	*	0	--
Electro-Chemical Processes	--	2	--	--	--	--	--	--
Other Process Use	--	1	0	*	0	0	0	--
Direct Uses—Total Nonprocess	--	2	0	2	1	*	*	--
Facility HVAC ^c	--	1	0	*	1	*	*	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	2	0	*	--	--
Conventional Electricity Generation	--	--	0	0	0	0	0	--
Other Nonprocess Use	--	*	0	*	0	*	0	--
End use not reported	104	0	0	*	0	*	0	104

327410	Lime
---------------	-------------

Total fuel consumption	103	5	0	1	26	*	56	15
Indirect Uses—Boiler Fuel	--	0	0	0	*	0	0	--
Conventional Boiler Use	--	0	0	0	*	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	0	0	0	--
Direct Uses—Total Process	--	4	0	1	25	*	56	--
Process Heating	--	2	0	*	25	*	54	--
Process Cooling and Refrigeration	--	*	0	0	0	0	0	--
Machine Drive	--	3	0	*	*	*	2	--
Electro-Chemical Processes	--	0	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	*	0	1	*	*	0	--
Facility HVAC ^c	--	*	0	*	*	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	0	0	--
Onsite Transportation	--	*	--	1	0	*	--	--
Conventional Electricity Generation	--	--	0	*	0	0	0	--

Other Nonprocess Use	--	*	0	*	0	*	0	--
End use not reported	15	0	0	0	0	*	0	15

327420	Gypsum
---------------	---------------

Total fuel consumption	77	6	*	*	70	*	0	*
Indirect Uses—Boiler Fuel	--	*	*	*	3	0	0	--
Conventional Boiler Use	--	*	0	0	1	0	0	--
CHP and/or Cogeneration Process	--	0	*	*	2	0	0	--
Direct Uses—Total Process	--	5	0	*	60	*	0	--
Process Heating	--	*	0	*	54	*	0	--
Process Cooling and Refrigeration	--		0	0	1	0	0	--
Machine Drive	--	4	0	*	4	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	1	0	0	--
Direct Uses—Total Nonprocess	--	1			7	*	0	--
Facility HVAC ⁶	--	*	*	*	2	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	*	1	0	0	--
Onsite Transportation	--	*	--	*	1	*	--	--
Conventional Electricity Generation	--	--	*	0	1	0	0	--
Other Nonprocess Use	--	*	0	0	1	0	0	--
End use not reported	*	0	0	0	0	0	0	*

327993	Mineral wool
---------------	---------------------

Total fuel consumption	47	14	0	*	32	*	*	1
Indirect Uses—Boiler Fuel	--	*	0	0	*	0	0	--
Conventional Boiler Use	--	*	0	0	*	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	*	0	0	--
Direct Uses—Total Process	--	12	0	*	29	*	*	--
Process Heating	--	5	0	*	28	*		--
Process Cooling and Refrigeration	--	1	0	0	*	0	0	--
Machine Drive	--	5	0	*	1	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--		0	*	*	0	0	--
Direct Uses—Total Nonprocess	--	2	0	*	2	*	0	--
Facility HVAC ⁶	--	1	0	*	2	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--		0	0	*	*	0	--
Onsite Transportation	--	*	--	*	*	*		--
Conventional Electricity Generation	--	--	0	*	0	0	0	--
Other Nonprocess Use	--	*	0	*	0	*	0	--
End use not reported	1	*	0	0	0	0	0	1

331 Primary metals

Total fuel consumption	1,449	339	2	8	626	4	9	460
Indirect Uses—Boiler Fuel	--	2	*	*	74	1	2	--
Conventional Boiler Use	--	2	*	*	18	1	0	--
CHP and/or Cogeneration Process	--	0	*	*	56	*	2	--
Direct Uses—Total Process	--	301	0	1	502	1	7	--
Process Heating	--	83	0		452	1	5	--
Process Cooling and Refrigeration	--	7	0	*	3	*	0	--
Machine Drive	--	128	0	*	16	*	0	--
Electro-Chemical Processes	--	59	--	--	--	--	--	--
Other Process Use	--	24	0		31		2	--
Direct Uses—Total Nonprocess	--	36	2	5	49	2	*	--
Facility HVAC ⁶	--	16	0	*	41	*	*	--
Facility Lighting	--	12	--	--	--	--	--	--
Other Facility Support	--	5	0		5		0	--
Onsite Transportation	--	1	--	5	1	2	--	--
Conventional Electricity Generation	--	--	0	*	1	*	0	--
Other Nonprocess Use	--	3	2	*	1	*	*	--
End use not reported	464	*	0	2	*	*	1	460

33110 Iron and steel mills and ferroalloys

Total fuel consumption	1,032	186	2	4	389	*	9	441
Indirect Uses—Boiler Fuel	--	*	*	0	45	*	2	--
Conventional Boiler Use	--	*	*	0	13	0	0	--
CHP and/or Cogeneration Process	--	0	*	0	33	*	2	--
Direct Uses—Total Process	--	169	0	*	325	*	7	--
Process Heating	--	54	0	*	293	*	5	--
Process Cooling and Refrigeration	--	3	0	0	2	*	0	--
Machine Drive	--	0	0	*	4	*	0	--
Electro-Chemical Processes	--	0	--	--	--	--	--	--
Other Process Use	--	17	0	*	27	*	2	--
Direct Uses—Total Nonprocess	--	16	2	4	19	*	*	--
Facility HVAC ⁶	--	7	0	*	17	*	0	--
Facility Lighting	--	6	--	--	--	--	--	--
Other Facility Support	--	2	0	*	1	*	0	--
Onsite Transportation	--	*	--	3	1	*	--	--
Conventional Electricity Generation	--	--	0	*	0	*	0	--
Other Nonprocess Use	--	2	2	*	*	*	*	--
End use not reported	442	0	0	*	0	*	1	441

3312 Steel products from purchased steel

Total fuel consumption	55	19	0	2	33	*	0	1
Indirect Uses—Boiler Fuel	--	1	0	0	3	*	0	--
Conventional Boiler Use	--	1	0	0	2	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	2	*	0	--
Direct Uses—Total Process	--	15	0	*	23	*	0	--
Process Heating	--	2	0	0	21	*	0	--
Process Cooling and Refrigeration	--	1	0	0	1	*	0	--
Machine Drive	--	11	0	*	1	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	0	*	0	--
Direct Uses—Total Nonprocess	--	3	0	*	7	*	0	--
Facility HVAC ⁶	--	2	0	*	5	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	*	1	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	--	0	*	1	0	0	--
End use not reported	3	*	0	2	0	*	0	1

3313 Alumina and aluminum production and processing

Total fuel consumption	189	68	0	1	118	1	0	2
Indirect Uses—Boiler Fuel	--	*	0	0	14	*	0	--
Conventional Boiler Use	--	*	0	0	1	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	13	*	0	--
Direct Uses—Total Process	--	61	0	*	96	*	0	--
Process Heating	--	4	0	0	89	*	0	--
Process Cooling and Refrigeration	--	1	0	0	*	*	0	--
Machine Drive	--	D	0	*	5	*	0	--
Electro-Chemical Processes	--	D	--	--	--	--	--	--
Other Process Use	--	1	0	*	2	*	0	--
Direct Uses—Total Nonprocess	--	6	0	1	8	1	0	--
Facility HVAC ⁶	--	2	0	*	6	*	0	--
Facility Lighting	--	2	--	--	--	--	--	--
Other Facility Support	--	1	0	0	2	*	0	--
Onsite Transportation	--	*	--	1	*	1	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	2	*	0	0	*	*	0	2

331314 Secondary smelting and alloying of aluminum

Total fuel consumption	22	2	0	*	20	*	0	*
Indirect Uses—Boiler Fuel	--	0	0	0	*	0	0	--
Conventional Boiler Use	--	0	0	0	0	0	0	--

CHP and/or Cogeneration Process	--	0	0	0	*	0	0	--
Direct Uses—Total Process	--	2	0	*	19	*	0	--
Process Heating	--	*	0	0	16	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	1	0	*	2	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	0	*	*	0	--
Direct Uses—Total Nonprocess	--	*	0	*	1	*	0	--
Facility HVAC ⁶	--	*	0	0	1	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	0	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0			0	0	--
Other Nonprocess Use	--	*	0	0	0	0	0	--
End use not reported	*	0	0	0	0	0	0	*

331315 Aluminum sheet, plate and foils

Total fuel consumption	84	21	0	1	62	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	0	2	*	0	--
Conventional Boiler Use	--	*	0	0	1	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	1	*	0	--
Direct Uses—Total Process	--	17	0	*	55	*	0	--
Process Heating	--	2	0	0	54	*	0	--
Process Cooling and Refrigeration	--	1	0	0	*	0	0	--
Machine Drive	--	14	0	*	1	0	0	--
Electro-Chemical Processes	--	0	--	--	--	--	--	--
Other Process Use	--	*	0	0	1	*	0	--
Direct Uses—Total Nonprocess	--	4	0	1	5	*	0	--
Facility HVAC ⁶	--	1	0	*	4	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	1	0	0	1	0	0	--
Onsite Transportation	--	*		*	*	*		--
Conventional Electricity Generation	--	--	0	0	*	0	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	*	*	0	0	*	0	0	*

331318 Other aluminum rolling, drawing and extruding

Total fuel consumption	26	7	0	*	18	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	0	D	*	0	--
Conventional Boiler Use	--	*	0	0	*	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	D	*	0	--
Direct Uses—Total Process	--	6	0	*	D	*	0	--
Process Heating	--	1	0	0	D	*	0	--

Process Cooling and Refrigeration	--	*	0	0	*	*	0	--
Machine Drive	--	4	0	0	2	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	1	*	0	--
Direct Uses—Total Nonprocess	--	1	0	*	D	*	0	--
Facility HVAC ⁸	--	*	0	0	D	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	*	*	*	*	*	--
Conventional Electricity Generation	--	--	0	0	0	0	0	--
Other Nonprocess Use	--	*	0	0	0	*	0	--
End use not reported	*	*	0	0	0	*	0	*

3314 Nonferrous metal (except aluminum) production and processing

Total fuel consumption	85	33	0	--	43	2	0	6
Indirect Uses—Boiler Fuel	--	*	0	*	9	1	0	--
Conventional Boiler Use	--	*	0	*	2	1	0	--
CHP and/or Cogeneration Process	--	0	0	*	7	*	0	--
Direct Uses—Total Process	--	29	0	*	28	1	0	--
Process Heating	--	10	0	*	24	1	0	--
Process Cooling and Refrigeration	--	1	0	*	*	0	0	--
Machine Drive	--	11	0	*	3	*	0	--
Electro-Chemical Processes	--	4	--	--	--	--	--	--
Other Process Use	--	3	0	*	1	*	0	--
Direct Uses—Total Nonprocess	--	4	0	*	6	1	0	--
Facility HVAC ⁸	--	2	0	*	4	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	6	*	0	*	*	*	0	6

331410 Nonferrous metal (except aluminum) smelting and refining

Total fuel consumption	30	15	0	*	14	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	*	7	*	0	--
Conventional Boiler Use	--	*	0	*	1	0	0	--
CHP and/or Cogeneration Process	--	0	0	--	6	*	0	--
Direct Uses—Total Process	--	14	0	*	5	0	0	--
Process Heating	--	6	0	*	4	*	0	--
Process Cooling and Refrigeration	--	1	0	0	*	0	0	--
Machine Drive	--	2	0	*	*	*	0	--
Electro-Chemical Processes	--	4	--	--	--	--	--	--

Other Process Use	--	2	0	*	1	*	0	--
Direct Uses—Total Nonprocess	--	1	0	*	2	*	0	--
Facility HVAC ⁶	--	*	0	0	1	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	0	0	0	0	0	0	--
End use not reported	*	*	0	0	*	*	0	*

3315	Foundries
-------------	------------------

Total fuel consumption	87	34	0	*	43	1	*	10
Indirect Uses—Boiler Fuel	--	*	0	*	2	*	0	--
Conventional Boiler Use	--	*	0	0	1	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	2	*	0	--
Direct Uses—Total Process	--	28	0	*	30	*	0	--
Process Heating	--	12	0	*	25	*	0	--
Process Cooling and Refrigeration	--	1	0	0	*	*	0	--
Machine Drive	--	12	0	*	4	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	2	0	*	1	*	0	--
Direct Uses—Total Nonprocess	--	6	0	*	10	1	*	--
Facility HVAC ⁶	--	3	0	*	9	*	*	--
Facility Lighting	--	2	--	--	--	--	--	--
Other Facility Support	--	1	0	*	1	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	1	0	*	*	*	0	--
End use not reported	10	*	0	*	*	*	0	10

331511	Iron foundries
---------------	-----------------------

Total fuel consumption	38	16	0	*	11	*	*	10
Indirect Uses—Boiler Fuel	--	*	0	*	*	*	0	--
Conventional Boiler Use	--	*	0	0	*	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	*	*	0	--
Direct Uses—Total Process	--	14	0	*	7	*	0	--
Process Heating	--	7	0	0	5	*	0	--
Process Cooling and Refrigeration	--	--	0	0	0	*	0	--
Machine Drive	--	6	0	*	1	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	2	0	*	5	*	*	--
Facility HVAC ⁶	--	1	0	*	4	*	*	--

Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	*	*	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	0	*	*	0	--
End use not reported	10	0	0	*	0	*	0	10

331523 Nonferrous metal die-casting foundries

Total fuel consumption	23	7	0	*	16	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	0	1	*	0	--
Conventional Boiler Use	--	*	0	0	*	*	0	--
CHP and/or Cogeneration Process	--	0	0	0	1	*	0	--
Direct Uses—Total Process	--	5	0	*	12	*	0	--
Process Heating	--	2	0	0	10	*	0	--
Process Cooling and Refrigeration	--	--	0	0	*	*	0	--
Machine Drive	--	3	0	*	2	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	*	0	*	*	*	0	--
Direct Uses—Total Nonprocess	--	2	0	*	3	*	0	--
Facility HVAC ⁶	--	1	0	0	2	*	0	--
Facility Lighting	--	1	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	0	*	0	0	--
Other Nonprocess Use	--	*	0	0	*	*	0	--
End use not reported	*	0	0	0	0	*	0	*

331524 Aluminum foundries, except die-casting

Total fuel consumption	6	2	0	*	4	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	0	*	*	0	--
Conventional Boiler Use	--	*	0	0	*	*	0	--
CHP and/or Cogeneration Process	--	0	0	0	*	0	0	--
Direct Uses—Total Process	--	1	0	*	3	*	0	--
Process Heating	--	--	0	*	3	*	0	--
Process Cooling and Refrigeration	--	*	0	0	*	0	0	--
Machine Drive	--	1	0	*	*	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	--	0	0	*	*	0	--
Direct Uses—Total Nonprocess	--	1	0	*	1	*	0	--
Facility HVAC ⁶	--	*	0	*	1	*	0	--
Facility Lighting	--	*	--	--	--	--	--	--
Other Facility Support	--	*	0	0	*	0	0	--
Onsite Transportation	--	*	--	*	0	*	--	--

Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	*	0	0	*	0	0	--
End use not reported	*	*	0	0	*	*	0	*

332 Fabricated metal products

Total fuel consumption	425	143	*	2	275	4	0	Q
Indirect Uses—Boiler Fuel	--	1	*	0	51	*	0	--
Conventional Boiler Use	--	1	0	0	Q	*	0	--
CHP and/or Cogeneration Process	--	0	*	0	Q	*	0	--
Direct Uses—Total Process	--	99	*	*	180	1	0	--
Process Heating	--	22	0		175		0	--
Process Cooling and Refrigeration	--	3	0	0	*	0	0	--
Machine Drive	--	66	*	*	3	1	0	--
Electro-Chemical Processes	--	3	--	--	--	--	--	--
Other Process Use	--	6	0		Q	*	0	--
Direct Uses—Total Nonprocess	--	38	*	2	43	3	0	--
Facility HVAC ⁸	--	20	*	*	40	Q	0	--
Facility Lighting	--	12	--	--	--	--	--	--
Other Facility Support	--	4	0	0	3	*	0	--
Onsite Transportation	--	1	--	2	*	2	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	*	*	*	0	--
End use not reported	7	5	0	0	Q	*	0	Q

333 Machinery

Total fuel consumption	143	76	0	3	60	4	0	*
Indirect Uses—Boiler Fuel	--	*	0	*	5	*	0	--
Conventional Boiler Use	--	*	0	0	2	0	0	--
CHP and/or Cogeneration Process	--	0	0	*	4	*	0	--
Direct Uses—Total Process	--	41	0	Q	25	Q	0	--
Process Heating	--	4	0	*	20	Q	0	--
Process Cooling and Refrigeration	--	3	0	*	Q	0	0	--
Machine Drive	--	31	0	*	3	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	3	0	Q	1	*	0	--
Direct Uses—Total Nonprocess	--	29	0	*	28	2	0	--
Facility HVAC ⁸	--	15	0	*	25	Q	0	--
Facility Lighting	--	7	--	--	--	--	--	--
Other Facility Support	--	3	0	*	1	*	0	--
Onsite Transportation	--	Q	--	*	*	1	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	Q	0	*	Q	*	0	--
End use not reported	7	5	0	*	Q	*	0	*

334	Computer and electronic products								
	Total fuel consumption	128	95	*	*	32	*	0	*
	Indirect Uses—Boiler Fuel	--	1	0	*	8	*	0	--
	Conventional Boiler Use	--	1	0	*	4	*	0	--
	CHP and/or Cogeneration Process	--	0	0	*	4	0	0	--
	Direct Uses—Total Process	--	58	*	*	8	*	0	--
	Process Heating	--	5	0	*	5	*	0	--
	Process Cooling and Refrigeration	--	12	0	*	*	0	0	--
	Machine Drive	--	20	0	*	Q	0	0	--
	Electro-Chemical Processes	--	1	--	--	--	--	--	--
	Other Process Use	--	Q	*	*	1	*	0	--
	Direct Uses—Total Nonprocess	--	35	0	*	16	*	0	--
	Facility HVAC ⁶	--	21	0	*	13	*	0	--
	Facility Lighting	--	7	--	--	--	--	--	--
	Other Facility Support	--	5	0	*	1	*	0	--
	Onsite Transportation	--	*	--	*	0	*	--	--
	Conventional Electricity Generation	--	--	0	*	1	0	0	--
	Other Nonprocess Use	--	1	0	*	Q	*	0	--
	End use not reported	2	1	0	0	*	*	0	*
334413	Semiconductors and related devices								
	Total fuel consumption	66	47	*	*	19	*	0	*
	Indirect Uses—Boiler Fuel	--	*	0	*	6	*	0	--
	Conventional Boiler Use	--	*	0	*	3	*	0	--
	CHP and/or Cogeneration Process	--	0	0	*	2	0	0	--
	Direct Uses—Total Process	--	32	*	*	4	*	0	--
	Process Heating	--	4	0	*	2	*	0	--
	Process Cooling and Refrigeration	--	8	0	*	*	0	0	--
	Machine Drive	--	11	0	*	*	0	0	--
	Electro-Chemical Processes	--	1	--	--	--	--	--	--
	Other Process Use	--	9	*	*	1	*	0	--
	Direct Uses—Total Nonprocess	--	14	0	*	9	*	0	--
	Facility HVAC ⁶	--	10	0	*	7	*	0	--
	Facility Lighting	--	2	--	--	--	--	--	--
	Other Facility Support	--	2	0	*	*	*	0	--
	Onsite Transportation	--	*	--	*	0	*	--	--
	Conventional Electricity Generation	--	--	0	*	1	0	0	--
	Other Nonprocess Use	--	1	0	*	0	0	0	--
	End use not reported	*	*	0	0	*	0	0	*
335	Electrical equip., appliances, and components								

Total fuel consumption	87	40	0	Q	37	*	0	9
Indirect Uses—Boiler Fuel	--	*	0	0	5	0	0	--
Conventional Boiler Use	--	*	0	0	5	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	*	0	0	--
Direct Uses—Total Process	--	26	0	*	19	*	0	--
Process Heating	--	5	0	0	16	*	0	--
Process Cooling and Refrigeration	--	1	0	*	*	0	0	--
Machine Drive	--	15	0		2	*	0	--
Electro-Chemical Processes	--	3	--	--	--	--	--	--
Other Process Use	--	1	0	*	Q	0	0	--
Direct Uses—Total Nonprocess	--	12	0	Q	11	*	0	--
Facility HVAC ⁸	--	7	0		10		0	--
Facility Lighting	--	3	--	--	--	--	--	--
Other Facility Support	--	1	0	0	1	*	0	--
Onsite Transportation	--	1	--	*	0	*	--	--
Conventional Electricity Generation	--	--	0		0	*	0	--
Other Nonprocess Use	--	Q	0	*	*	*	0	--
End use not reported	12	2	0	0	Q	*	0	9

336 Transportation equipment

Total fuel consumption	304	159	*	1	130	3	0	11
Indirect Uses—Boiler Fuel	--	1	0	*	20	*	0	--
Conventional Boiler Use	--	1	0	*	10	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	10	*	0	--
Direct Uses—Total Process	--	94	0	*	55	1	0	--
Process Heating	--	12	0	*	50	*	0	--
Process Cooling and Refrigeration	--	9	0	0	*	*	0	--
Machine Drive	--	66	0	*	Q	*	0	--
Electro-Chemical Processes	--	1	--	--	--	--	--	--
Other Process Use	--	6	0	*	3	*	0	--
Direct Uses—Total Nonprocess	--	58		1	54	2	0	--
Facility HVAC ⁸	--	30	*	*	50	Q	0	--
Facility Lighting	--	20	--	--	--	--	--	--
Other Facility Support	--	5	0	*	3	*	0	--
Onsite Transportation	--	2	--	1	*	1	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	1	0	*	1	*	0	--
End use not reported	17	5	0	*	1	*	0	11

336110 Automobile and light duty motor vehicle manufacturing

Total fuel consumption	77	27	0	*	40	*	0	8
Indirect Uses—Boiler Fuel	--	1	0	0	4	0	0	--

Conventional Boiler Use	--	1	0	0	4	0	0	--
CHP and/or Cogeneration Process	--	0	0	0	1	0	0	--
Direct Uses—Total Process	--	17	0	*	25	*	0	--
Process Heating	--	1	0	0	24	*	0	--
Process Cooling and Refrigeration	--	2	0	0	*	0	0	--
Machine Drive	--	13	0	*	*	0	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	1	*	0	--
Direct Uses—Total Nonprocess	--	9	0	*	11	*	0	--
Facility HVAC ⁶	--	6	0	0	10	*	0	--
Facility Lighting	--	2	--	--	--	--	--	--
Other Facility Support	--	1	0	*	*	0	0	--
Onsite Transportation	--	--	--	--	--	--	--	--
Conventional Electricity Generation	--	--	0	*	*	0	0	--
Other Nonprocess Use	--	*	0	*	0	*	0	--
End use not reported	10	*	0	*	1	0	0	8

3364 Aerospace product and parts

Total fuel consumption	62	33	0	*	27	*	0	1
Indirect Uses—Boiler Fuel	--	*	0	*	9	*	0	--
Conventional Boiler Use	--	*	0	*	4	*	0	--
CHP and/or Cogeneration Process	--	0	0	*	5	*	0	--
Direct Uses—Total Process	--	18	0	*	8	*	0	--
Process Heating	--	4	0	*	6	*	0	--
Process Cooling and Refrigeration	--	3	0	0	*	*	0	--
Machine Drive	--	9	0	*	*	*	0	--
Electro-Chemical Processes	--	*	--	--	--	--	--	--
Other Process Use	--	1	0	*	1	*	0	--
Direct Uses—Total Nonprocess	--	14	0	*	11	*	0	--
Facility HVAC ⁶	--	8	0	*	9	*	0	--
Facility Lighting	--	5	--	--	--	--	--	--
Other Facility Support	--	1	0	*	1	*	0	--
Onsite Transportation	--	*	--	*	*	*	--	--
Conventional Electricity Generation	--	--	0	*	*	*	0	--
Other Nonprocess Use	--	*	0	*	1	*	0	--
End use not reported	2	*	0	0	*	*	0	1

336411 Aircraft

Total fuel consumption	18	9	0	*	8	*	0	*
Indirect Uses—Boiler Fuel	--	*	0	*	4	0	0	--
Conventional Boiler Use	--	*	0	*	2	0	0	--
CHP and/or Cogeneration Process	--	0	0	*	2	0	0	--
Direct Uses—Total Process	--	4	0	*	2	*	0	--

	Process Heating	--	*	0	*	2	*	0	--
	Process Cooling and Refrigeration	--	1	0	0	*	*	0	--
	Machine Drive	--	2	0	*	*	*	0	--
	Electro-Chemical Processes	--	*	--	--	--	--	--	--
	Other Process Use	--	*	0	0	*	0	0	--
	Direct Uses—Total Nonprocess	--	5	0	*	3	*	0	--
	Facility HVAC ⁸	--	3	0	0	2	*	0	--
	Facility Lighting	--	2	--	--	--	--	--	--
	Other Facility Support	--	1	0	--	*	*	0	--
	Onsite Transportation	--	*	--	*	*	*	--	--
	Conventional Electricity Generation	--	--	0	*	*	*	0	--
	Other Nonprocess Use	--	*	0	*	*	*	0	--
	End use not reported	--	*	0	0	0	*	0	*

337 Furniture and related products

	Total fuel consumption	51	Q	0	*	14	1	*	4
	Indirect Uses—Boiler Fuel	--	*	0	0	1	*	0	--
	Conventional Boiler Use	--	*	0	0	*	0	0	--
	CHP and/or Cogeneration Process	--	0	0	0	*	*	0	--
	Direct Uses—Total Process	--	15	0	*	6	*	0	--
	Process Heating	--	*	0	0	5	*	0	--
	Process Cooling and Refrigeration	--	Q	0	0	*	0	0	--
	Machine Drive	--	12	0	*	*	*	0	--
	Electro-Chemical Processes	--	*	--	--	--	--	--	--
	Other Process Use	--	*	0	0	0	*	0	--
	Direct Uses—Total Nonprocess	--	Q	0	*	6	1	*	--
	Facility HVAC ⁸	--	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	--	*	0	*	0	0	0	--
	End use not reported	7	1	0	*	Q	*	0	4

339 Miscellaneous

	Total fuel consumption	57	33	0	*	24	*	0	*
	Indirect Uses—Boiler Fuel	--	*	0	0	3	0	0	--
	Conventional Boiler Use	--	*	0	0	*	0	0	--
	CHP and/or Cogeneration Process	--	0	0	0	3	0	0	--
	Direct Uses—Total Process	--	18	0	*	10	*	0	--
	Process Heating	--	1	0	0	9	*	0	--
	Process Cooling and Refrigeration	--	2	0	0	*	*	0	--
	Machine Drive	--	12	0	*	*	*	0	--

Electro-Chemical Processes	--	*	--	--	--	--	--
Other Process Use	--	2	0	0	*	*	0
Direct Uses—Total Nonprocess	--	14	0	*	11	*	0
Facility HVAC ^g	--	9	0	*	10	*	0
Facility Lighting	--	4	--	--	--	--	--
Other Facility Support	--	1	0	0	1	*	0
Onsite Transportation	--	*	--	*	*	*	--
Conventional Electricity Generation	--	--	0	*	*	0	0
Other Nonprocess Use	--	*	0	*	*	0	0
End use not reported	Q	Q	0	0	*	*	0

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.

^a The Bureau of the Census classifies establishments using the 2022 North American Industry Classification System (NAICS).

^b *Net electricity* is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

^c *Distillate fuel oil* includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

^d *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.

^e 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).

^f *Other* includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power.

^g 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: CDBRB-FY25-0054).

RSE Table 5.2 Relative standard errors for table 5.2

Unit: Percentage

NAICS code ^a	End use	Total	Net electricity ^b	Residual fuel oil	Distillate	Natural gas ^d	HGL (excluding natural gasoline) ^e	Coal	Other ^f
					fuel oil and diesel fuel ^c			(excluding coal coke and breeze)	
Total United States									
311 - 339	All manufacturing industries								
	Total fuel consumption	1.5	3.1	3.5	7.0	2.2	4.5	5.1	1.9
	Indirect Uses—Boiler Fuel	--	9.3	3.5	11.2	3.3	10.4	0.3	--
	Conventional Boiler Use	--	9.3	10.7	6.4	1.9	18.7	0.0	--
	CHP and/or Cogeneration Process	--	X	1.8	14.0	4.6	7.3	0.3	--
	Direct Uses—Total Process	--	3.0	13.2	17.6	2.1	4.2	9.0	--
	Process Heating	--	4.5	13.4	6.4	2.5	4.5	9.9	--
	Process Cooling and Refrigeration	--	3.4	68.9	75.5	12.2	41.5	1.7	--
	Machine Drive	--	3.9	55.2	17.6	3.7	20.1	0.3	--
	Electro-Chemical Processes	--	1.7	--	--	--	--	--	--
	Other Process Use	--	12.6	0.0	39.4	1.7	6.3	0.0	--
	Direct Uses—Total Nonprocess	--	4.3	6.7	6.2	3.9	7.3	0.6	--
	Facility HVAC ^g	--	4.1	71.5	23.3	4.8	20.0	2.3	--
	Facility Lighting	--	5.8	--	--	--	--	--	--
	Other Facility Support	--	3.6	0.0	22.2	5.7	40.5	0.0	--
	Onsite Transportation	--	14.6	--	5.9	6.0	7.1	--	--
	Conventional Electricity Generation	--	--	0.0	31.3	1.2	52.8	0.0	--
	Other Nonprocess Use	--	8.3	0.0	27.4	7.7	29.9	0.4	--
	End use not reported	1.9	22.0	0.0	28.0	9.8	34.9	0.1	1.9
311	Food								
	Total fuel consumption	2.4	3.2	40.5	20.2	3.5	36.4	0.0	1.4
	Indirect Uses—Boiler Fuel	--	7.4	51.3	28.9	2.6	40.7	0.0	--
	Conventional Boiler Use	--	7.4	3.7	10.6	3.8	54.3	0.0	--
	CHP and/or Cogeneration Process	--	X	61.3	34.5	3.4	25.1	0.0	--
	Direct Uses—Total Process	--	3.4	3.7	69.3	6.6	49.5	0.0	--
	Process Heating	--	11.3	0.0	30.0	6.2	56.8	0.0	--
	Process Cooling and Refrigeration	--	4.3	19.6	77.8	36.4	56.9	X	--
	Machine Drive	--	4.5	19.6	73.5	23.9	36.9	0.0	--
	Electro-Chemical Processes	--	7.3	--	--	--	--	--	--
	Other Process Use	--	17.3	X	0.3	21.6	54.9	X	--

	Direct Uses—Total Nonprocess	--	4.4	8.8	16.3	12.2	18.1	X	--
	Facility HVAC ⁶	--	6.0	8.8	38.9	16.6	25.8	X	--
	Facility Lighting	--	4.7	--	--	--	--	--	--
	Other Facility Support	--	5.9	X	40.4	12.3	35.1	X	--
	Onsite Transportation	--	5.8	--	13.0	12.3	21.9	--	--
	Conventional Electricity Generation	--	--	X	45.8	33.2	0.0	X	--
	Other Nonprocess Use	--	13.7	X	40.1	18.1	2.4	X	--
	End use not reported	2.1	20.9	X	77.3	18.3	47.4	0.0	1.4
3112	Grain and oilseed milling								
	Total fuel consumption	2.4	2.9	15.6	6.0	4.1	16.5	0.0	0.1
	Indirect Uses—Boiler Fuel	--	2.7	65.8	4.6	3.6	0.0	0.0	--
	Conventional Boiler Use	--	2.7	65.8	4.6	6.4	X	0.0	--
	CHP and/or Cogeneration Process	--	X	X	X	2.5	0.0	0.0	--
	Direct Uses—Total Process	--	2.9	0.0	2.7	8.8	26.4	X	--
	Process Heating	--	31.7	0.0	75.9	9.3	41.1	X	--
	Process Cooling and Refrigeration	--	1.8	X	X	0.0	X	X	--
	Machine Drive	--	3.0	X	0.4	12.8	6.7	X	--
	Electro-Chemical Processes	--	0.1	--	--	--	--	--	--
	Other Process Use	--	15.5	X	X	21.8	0.0	X	--
	Direct Uses—Total Nonprocess	--	5.3	41.7	8.0	6.2	20.5	X	--
	Facility HVAC ⁶	--	7.0	41.7	0.0	7.4	12.4	X	--
	Facility Lighting	--	4.0	--	--	--	--	--	--
	Other Facility Support	--	9.0	X	0.0	10.2	0.0	X	--
	Onsite Transportation	--	16.8	--	4.4	5.1	23.9	--	--
	Conventional Electricity Generation	--	--	X	0.0	0.0	0.0	X	--
	Other Nonprocess Use	--	0.0	X	53.3	X	3.5	X	--
	End use not reported	0.2	24.8	X	X	16.3	67.8	0.0	0.1
311221	Wet corn milling and starch manufacturing								
	Total fuel consumption	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0
	Indirect Uses—Boiler Fuel	--	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	X	0.0	X	0.0	--
	Direct Uses—Total Process	--	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	--
	Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
	Facility HVAC ⁶	--	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	--
End use not reported	0.0	X	X	X	X	X	0.0	0.0

31131 Sugar manufacturing

Total fuel consumption	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	X	0.0	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	X	X	X	X	X	X	0.0

3114 Fruit and vegetable preserving and specialty foods

Total fuel consumption	2.7	3.0	0.0	7.6	3.0	11.7	X	16.5
Indirect Uses—Boiler Fuel	--	7.5	X	0.0	3.7	18.7	X	--
Conventional Boiler Use	--	7.5	X	0.0	10.0	26.4	X	--
CHP and/or Cogeneration Process	--	X	X	0.0	3.5	14.8	X	--
Direct Uses—Total Process	--	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	--	4.1	X	47.0	24.0	69.5	X	--
Machine Drive	--	4.0	X	21.9	38.8	15.2	X	--
Electro-Chemical Processes	--	38.0	--	--	--	--	--	--
Other Process Use	--	17.8	X	86.6	0.1	0.0	X	--
Direct Uses—Total Nonprocess	--	3.6	0.0	4.9	4.9	22.7	X	--
Facility HVAC ⁸	--	4.2	0.0	53.5	6.2	15.9	X	--
Facility Lighting	--	4.1	--	--	--	--	--	--
Other Facility Support	--	5.9	X	0.0	5.5	2.5	X	--
Onsite Transportation	--	6.9	--	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	--
End use not reported	22.7	38.6	X	69.1	38.7	50.5	X	16.5

3115 Dairy product manufacturing

Total fuel consumption	3.9	4.0	74.0	21.3	3.4	77.0	X	59.4
Indirect Uses—Boiler Fuel	--	8.9	79.2	23.8	4.0	71.8	X	--
Conventional Boiler Use	--	8.9	X	0.0	2.5	91.5	X	--
CHP and/or Cogeneration Process	--	X	79.2	29.3	5.8	24.1	X	--
Direct Uses—Total Process	--	4.5	19.6	26.2	6.7	88.9	X	--
Process Heating	--	9.7	X	61.6	6.5	96.7	X	--
Process Cooling and Refrigeration	--	5.7	19.6	46.2	7.6	X	X	--
Machine Drive	--	5.1	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	--
Direct Uses—Total Nonprocess	--	4.3	19.6	23.7	6.1	8.9	X	--
Facility HVAC ⁸	--	4.4	19.6	64.9	7.0	14.8	X	--
Facility Lighting	--	4.7	--	--	--	--	--	--
Other Facility Support	--	8.0	X	X	7.1	2.8	X	--
Onsite Transportation	--	9.6	--	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	--
End use not reported	59.8	47.7	X	X	72.6	1.3	X	59.4

3116 Animal slaughtering and processing

Total fuel consumption	4.3	4.0	0.0	5.1	5.0	25.5	X	7.6
Indirect Uses—Boiler Fuel	--	8.9	0.0	0.9	7.2	31.6	X	--
Conventional Boiler Use	--	8.9	X	3.8	6.1	40.3	X	--
CHP and/or Cogeneration Process	--	X	0.0	0.6	9.7	48.7	X	--
Direct Uses—Total Process	--	4.3	X	60.7	6.6	60.2	X	--
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	--
Direct Uses—Total Nonprocess	--	4.9	X	8.4	10.1	19.6	X	--
Facility HVAC ⁸	--	5.4	X	X	6.0	26.2	X	--
Facility Lighting	--	6.6	--	--	--	--	--	--
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	--
End use not reported	16.9	19.7	X	30.3	21.8	71.7	X	7.6

312 Beverage and tobacco products

Total fuel consumption	40.1	17.8	X	22.2	49.8	9.8	0.0	27.7
Indirect Uses—Boiler Fuel	--	34.4	X	44.0	57.1	24.8	0.0	--
Conventional Boiler Use	--	34.4	X	5.3	10.2	14.3	X	--
CHP and/or Cogeneration Process	--	X	X	81.4	64.2	31.0	0.0	--
Direct Uses—Total Process	--	18.8	X	33.1	36.9	21.3	X	--
Process Heating	--	36.0	X	2.6	39.5	33.1	X	--
Process Cooling and Refrigeration	--	11.0	X	97.4	39.2	68.5	X	--
Machine Drive	--	23.0	X	10.1	48.4	51.1	X	--
Electro-Chemical Processes	--	15.5	--	--	--	--	--	--
Other Process Use	--	15.1	X	53.1	18.8	18.1	X	--
Direct Uses—Total Nonprocess	--	12.9	X	15.6	46.1	10.6	X	--
Facility HVAC ⁸	--	16.7	X	96.8	51.2	25.4	X	--
Facility Lighting	--	9.9	--	--	--	--	--	--
Other Facility Support	--	9.3	X	97.3	19.9	35.2	X	--
Onsite Transportation	--	13.2	--	18.1	45.3	11.7	--	--
Conventional Electricity Generation	--	--	X	57.2	0.0	41.5	X	--
Other Nonprocess Use	--	14.6	X	12.7	9.3	64.4	X	--
End use not reported	25.9	54.7	X	85.2	53.0	61.6	X	27.7

3121 Beverages

Total fuel consumption	41.2	18.7	X	25.0	50.9	10.9	0.0	27.8
Indirect Uses—Boiler Fuel	--	35.3	X	55.2	58.8	39.5	0.0	--
Conventional Boiler Use	--	35.3	X	8.9	11.7	14.4	X	--
CHP and/or Cogeneration Process	--	X	X	83.8	65.2	58.1	0.0	--
Direct Uses—Total Process	--	19.5	X	37.7	37.1	22.7	X	--
Process Heating	--	37.0	X	2.6	39.7	33.2	X	--
Process Cooling and Refrigeration	--	11.1	X	97.4	39.4	68.5	X	--
Machine Drive	--	24.3	X	10.1	49.0	51.1	X	--
Electro-Chemical Processes	--	15.7	--	--	--	--	--	--
Other Process Use	--	15.5	X	66.7	18.8	23.2	X	--
Direct Uses—Total Nonprocess	--	14.2	X	15.8	46.6	11.2	X	--
Facility HVAC ⁸	--	18.7	X	97.1	51.5	25.5	X	--
Facility Lighting	--	10.8	--	--	--	--	--	--
Other Facility Support	--	10.5	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	--	14.6	X	14.4	10.5	66.0	X	--
End use not reported	26.0	54.7	X	85.2	53.0	61.6	X	27.8

3122 Tobacco

Total fuel consumption	0.0	0.0	X	0.0	0.0	0.0	X	0.0
Indirect Uses—Boiler Fuel	--	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	0.0	X	--
Direct Uses—Total Process	--	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	0.0	X	X	--
Electro-Chemical Processes	--	0.0	--	--	--	--	--	--
Other Process Use	--	0.0	X	0.0	X	0.0	X	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	X	X	X	X	0.0	X	0.0

313 Textile mills

Total fuel consumption	6.6	6.5	X	78.1	10.5	6.4	42.2	12.8
Indirect Uses—Boiler Fuel	--	38.2	X	0.0	12.5	0.5	8.7	--
Conventional Boiler Use	--	38.2	X	0.0	11.8	1.2	0.0	--
CHP and/or Cogeneration Process	--	X	X	0.0	21.6	0.0	25.8	--
Direct Uses—Total Process	--	6.9	X	95.6	14.6	12.6	73.3	--
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	--	7.5	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	--
Direct Uses—Total Nonprocess	--	9.0	X	19.2	12.6	17.2	X	--
Facility HVAC ⁸	--	10.9	X	X	15.6	9.0	X	--
Facility Lighting	--	8.4	--	--	--	--	--	--
Other Facility Support	--	8.3	X	X	9.5	X	X	--
Onsite Transportation	--	18.7	--	2.7	1.4	28.9	--	--
Conventional Electricity Generation	--	--	X	X	73.3	X	X	--
Other Nonprocess Use	--	0.0	X	45.8	96.7	X	X	--
End use not reported	19.3	49.1	X	76.5	64.6	64.6	X	12.8

314 Textile product mills

Total fuel consumption	10.9	13.3	X	54.8	13.5	55.3	X	98.7
Indirect Uses—Boiler Fuel	--	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	X	41.2	97.7	X	--
	Direct Uses—Total Process	--	10.9	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	--	11.9	X	X	63.2	41.4	X	--
	Electro-Chemical Processes	--	4.3	--	--	--	--	--	--
	Other Process Use	--	48.1	X	X	X	X	X	--
	Direct Uses—Total Nonprocess	--	26.5	X	25.9	29.5	46.6	X	--
	Facility HVAC ⁶	--	36.2	X	X	30.7	61.0	X	--
	Facility Lighting	--	12.4	--	--	--	--	--	--
	Other Facility Support	--	29.1	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	--
	End use not reported	43.3	49.3	X	X	62.1	X	X	98.7
315	Apparel								
	Total fuel consumption	11.2	11.3	X	96.8	17.9	27.5	X	0.0
	Indirect Uses—Boiler Fuel	--	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	X	25.5	52.6	X	--
	Direct Uses—Total Process	--	11.6	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	--	12.1	X	X	75.1	6.9	X	--
	Electro-Chemical Processes	--	X	--	--	--	--	--	--
	Other Process Use	--	X	X	X	0.0	X	X	--
	Direct Uses—Total Nonprocess	--	15.9	X	1.3	20.4	16.8	X	--
	Facility HVAC ⁶	--	18.7	X	X	22.1	5.3	X	--
	Facility Lighting	--	20.5	--	--	--	--	--	--
	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	--
	End use not reported	73.0	64.2	X	X	87.2	X	X	0.0
316	Leather and allied products								
	Total fuel consumption	33.0	4.9	X	34.7	44.4	13.6	X	91.3
	Indirect Uses—Boiler Fuel	--	8.9	X	75.5	0.2	X	X	--
	Conventional Boiler Use	--	8.9	X	X	0.0	X	X	--
	CHP and/or Cogeneration Process	--	X	X	75.5	0.6	X	X	--
	Direct Uses—Total Process	--	4.3	X	0.0	4.8	53.4	X	--
	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	--
Direct Uses—Total Nonprocess	--	8.2	X	6.3	53.7	13.6	X	--
Facility HVAC ⁸	--	9.4	X	6.4	54.3	26.6	X	--
Facility Lighting	--	10.2	--	--	--	--	--	--
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	--
End use not reported	76.8	71.9	X	X	X	X	X	91.3

321 Wood products

Total fuel consumption	2.7	6.5	37.3	11.3	7.2	12.8	99.0	2.5
Indirect Uses—Boiler Fuel	--	4.0	X	27.3	4.2	29.3	X	--
Conventional Boiler Use	--	4.0	X	2.3	8.5	0.7	X	--
CHP and/or Cogeneration Process	--	X	X	71.6	4.5	33.6	X	--
Direct Uses—Total Process	--	7.4	88.5	15.2	10.1	17.0	99.0	--
Process Heating	--	51.7	59.4	26.7	10.8	17.6	99.0	--
Process Cooling and Refrigeration	--	4.9	X	40.0	69.0	96.1	X	--
Machine Drive	--	2.4	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	--
Direct Uses—Total Nonprocess	--	4.2	1.3	14.9	8.4	17.2	X	--
Facility HVAC ⁸	--	5.4	1.3	15.4	8.8	41.4	X	--
Facility Lighting	--	3.9	--	--	--	--	--	--
Other Facility Support	--	6.7	0.0	9.2	21.1	29.2	X	--
Onsite Transportation	--	17.7	--	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	--
End use not reported	2.4	14.5	X	59.9	31.5	46.3	X	2.5

321113 Sawmills

Total fuel consumption	2.2	2.1	38.7	4.7	7.5	9.6	X	2.7
Indirect Uses—Boiler Fuel	--	4.1	X	1.5	9.9	4.1	X	--
Conventional Boiler Use	--	4.1	X	0.7	0.5	1.0	X	--
CHP and/or Cogeneration Process	--	X	X	16.6	14.5	6.0	X	--
Direct Uses—Total Process	--	2.4	89.7	14.8	9.6	12.3	X	--
Process Heating	--	10.0	71.0	0.9	9.8	13.8	X	--
Process Cooling and Refrigeration	--	3.2	X	X	X	X	X	--
Machine Drive	--	1.8	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	--
Direct Uses—Total Nonprocess	--	2.0	1.3	3.8	21.2	11.4	X	--
Facility HVAC ⁶	--	2.1	1.3	4.3	22.3	21.6	X	--
Facility Lighting	--	2.0	--	--	--	--	--	--
Other Facility Support	--	4.2	X	0.0	3.0	11.5	X	--
Onsite Transportation	--	8.5	--	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	--
End use not reported	2.7	4.5	X	72.7	0.0	58.7	X	2.7

3212 Veneer, plywood, and engineered wood product manufacturing

Total fuel consumption	1.6	2.8	0.0	22.1	2.0	8.1	X	1.6
Indirect Uses—Boiler Fuel	--	1.2	X	2.6	3.6	1.5	X	--
Conventional Boiler Use	--	1.2	X	42.9	17.5	0.0	X	--
CHP and/or Cogeneration Process	--	X	X	0.0	1.7	2.9	X	--
Direct Uses—Total Process	--	3.0	0.0	3.6	1.8	22.2	X	--
Process Heating	--	4.4	0.0	0.0	2.0	47.3	X	--
Process Cooling and Refrigeration	--	5.7	X	X	17.5	96.1	X	--
Machine Drive	--	3.2	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	--
Direct Uses—Total Nonprocess	--	4.0	0.0	16.6	9.3	7.6	X	--
Facility HVAC ⁶	--	4.2	0.0	X	9.8	16.5	X	--
Facility Lighting	--	6.0	--	--	--	--	--	--
Other Facility Support	--	5.9	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	--
End use not reported	1.6	5.3	X	88.8	19.3	96.2	X	1.6

321219 Reconstituted wood products

Total fuel consumption	1.1	3.2	0.0	0.0	2.7	26.6	X	0.1
Indirect Uses—Boiler Fuel	--	0.6	X	0.0	2.1	0.0	X	--
Conventional Boiler Use	--	0.6	X	X	0.0	X	X	--
CHP and/or Cogeneration Process	--	X	X	0.0	2.5	0.0	X	--
Direct Uses—Total Process	--	3.1	0.0	0.0	2.3	7.7	X	--
Process Heating	--	8.8	0.0	0.0	2.6	0.0	X	--
Process Cooling and Refrigeration	--	1.7	X	X	0.0	X	X	--
Machine Drive	--	3.2	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	--
Direct Uses—Total Nonprocess	--	6.3	0.0	0.0	13.4	28.5	X	--
Facility HVAC ⁶	--	7.5	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	--
	End use not reported	0.1	0.0	X	X	0.0	X	X	0.1
3219	Other wood products								
	Total fuel consumption	15.9	20.7	X	27.4	26.1	16.9	99.0	26.5
	Indirect Uses—Boiler Fuel	--	14.2	X	0.0	14.0	53.7	X	--
	Conventional Boiler Use	--	14.2	X	0.0	9.4	X	X	--
	CHP and/or Cogeneration Process	--	X	X	X	21.1	53.7	X	--
	Direct Uses—Total Process	--	24.4	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	--	14.3	X	41.0	95.3	X	X	--
	Machine Drive	--	8.7	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	--
	Direct Uses—Total Nonprocess	--	10.8	X	32.4	14.1	20.8	X	--
	Facility HVAC ⁶	--	12.8	X	98.3	14.6	59.9	X	--
	Facility Lighting	--	10.8	--	--	--	--	--	--
	Other Facility Support	--	16.3	X	X	38.0	95.8	X	--
	Onsite Transportation	--	26.5	--	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	--
	End use not reported	25.2	51.7	X	0.0	81.7	54.9	X	26.5
322	Paper								
	Total fuel consumption	0.5	2.6	0.9	0.4	1.4	16.6	0.9	0.1
	Indirect Uses—Boiler Fuel	--	3.5	1.0	0.2	1.5	0.0	0.9	--
	Conventional Boiler Use	--	3.5	0.0	0.0	4.2	0.0	0.0	--
	CHP and/or Cogeneration Process	--	X	1.3	0.2	1.6	0.0	0.9	--
	Direct Uses—Total Process	--	2.5	0.0	0.1	3.3	49.2	0.0	--
	Process Heating	--	6.1	0.0	0.0	3.0	0.2	X	--
	Process Cooling and Refrigeration	--	22.4	X	X	0.8	X	X	--
	Machine Drive	--	2.4	X	0.1	17.6	59.4	0.0	--
	Electro-Chemical Processes	--	35.5	--	--	--	--	--	--
	Other Process Use	--	13.1	X	0.0	1.5	4.6	X	--
	Direct Uses—Total Nonprocess	--	4.9	0.0	0.9	5.0	13.9	0.0	--
	Facility HVAC ⁶	--	7.5	X	0.0	7.8	18.3	X	--
	Facility Lighting	--	4.5	--	--	--	--	--	--
	Other Facility Support	--	7.7	X	0.0	6.0	4.9	X	--
	Onsite Transportation	--	12.7	--	1.0	0.9	14.8	--	--

Conventional Electricity Generation	--	--	0.0	0.0	0.0	0.0	0.0	--
Other Nonprocess Use	--	9.0	X	0.0	3.3	60.7	X	--
End use not reported	0.2	51.9	0.0	X	94.0	97.3	X	0.1

322110 Pulp mills

Total fuel consumption	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indirect Uses—Boiler Fuel	--	0.0	0.0	0.0	0.0	0.0	0.0	--
Conventional Boiler Use	--	0.0	X	0.0	0.0	X	X	--
CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	0.0	0.0	--
Direct Uses—Total Process	--	0.0	X	0.0	0.0	X	X	--
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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	0.0	X	X	X	X	X	X	0.0

322120 Paper mills

Total fuel consumption	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indirect Uses—Boiler Fuel	--	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	--	X	0.0	0.0	0.0	0.0	0.0	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	0.0	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	0.0	X	X	X	X	0.0	X	0.0

322130 Paperboard mills

Total fuel consumption	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indirect Uses—Boiler Fuel	--	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	--	X	0.0	0.0	0.0	0.0	0.0
Direct Uses—Total Process	--	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
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	0.0
Facility HVAC ⁶	--	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	0.0	X	0.0	X	X	0.0	0.0

323 Printing and related support

Total fuel consumption	11.5	12.3	99.0	58.4	13.8	22.2	X	88.6
Indirect Uses—Boiler Fuel	--	47.8	X	X	25.7	62.1	X	--
Conventional Boiler Use	--	47.8	X	X	26.8	62.1	X	--
CHP and/or Cogeneration Process	--	X	X	X	61.0	X	X	--
Direct Uses—Total Process	--	11.5	X	77.7	19.5	69.3	X	--
Process Heating	--	29.7	X	X	22.3	85.4	X	--
Process Cooling and Refrigeration	--	16.3	X	X	50.7	X	X	--
Machine Drive	--	12.0	X	77.7	47.2	X	X	--
Electro-Chemical Processes	--	35.9	--	--	--	--	--	--
Other Process Use	--	87.0	X	X	56.7	99.0	X	--
Direct Uses—Total Nonprocess	--	16.8	99.0	65.1	16.3	21.5	X	--
Facility HVAC ^b	--	11.3	99.0	X	18.7	94.9	X	--
Facility Lighting	--	34.7	--	--	--	--	--	--
Other Facility Support	--	16.3	X	X	24.1	X	X	--
Onsite Transportation	--	23.0	--	80.7	43.2	20.3	--	--
Conventional Electricity Generation	--	--	X	68.5	54.2	99.0	X	--
Other Nonprocess Use	--	65.6	X	80.7	58.5	X	X	--
End use not reported	51.5	65.2	X	X	97.0	97.0	X	88.6

324 Petroleum and coal products

Total fuel consumption	0.1	0.1	15.9	2.5	0.2	0.2	0.0	0.1
Indirect Uses—Boiler Fuel	--	6.4	0.0	2.5	0.3	0.2	X	--
Conventional Boiler Use	--	6.4	X	0.0	0.8	0.1	X	--
CHP and/or Cogeneration Process	--	X	0.0	2.5	0.2	0.7	X	--
Direct Uses—Total Process	--	0.1	17.0	4.7	0.3	0.2	0.0	--
Process Heating	--	1.0	17.0	4.8	0.3	0.2	X	--
Process Cooling and Refrigeration	--	2.2	X	X	0.9	0.0	X	--
Machine Drive	--	0.1	X	3.4	2.5	0.3	X	--
Electro-Chemical Processes	--	0.3	--	--	--	--	--	--
Other Process Use	--	3.8	X	36.5	0.1	0.0	0.0	--
Direct Uses—Total Nonprocess	--	0.4	0.0	1.5	2.2	2.0	X	--
Facility HVAC ⁸	--	0.4	X	24.1	2.5	3.6	X	--
Facility Lighting	--	0.5	--	--	--	--	--	--
Other Facility Support	--	0.8	X	68.3	1.3	16.0	X	--
Onsite Transportation	--	3.4	--	1.7	0.0	2.7	--	--
Conventional Electricity Generation	--	--	X	0.0	0.0	0.0	X	--
Other Nonprocess Use	--	7.3	0.0	1.8	8.0	0.1	X	--
End use not reported	0.1	2.4	0.0	3.1	0.1	0.3	X	0.1

324110 Petroleum refineries

Total fuel consumption	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0
Indirect Uses—Boiler Fuel	--	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	--	X	0.0	X	0.0	0.0	X	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	X	0.0	0.0	0.0	0.0	X	0.0

324121 Asphalt paving mixture and block

Total fuel consumption	3.1	3.8	17.7	4.7	4.1	6.1	X	4.9
Indirect Uses—Boiler Fuel	--	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	X	2.6	14.1	55.3	X	--
	Direct Uses—Total Process	--	4.6	17.7	8.1	4.0	6.3	X	--
	Process Heating	--	7.7	17.7	6.1	5.0	10.4	X	--
	Process Cooling and Refrigeration	--	72.1	X	X	82.4	X	X	--
	Machine Drive	--	2.2	X	8.1	4.5	0.8	X	--
	Electro-Chemical Processes	--	0.7	--	--	--	--	--	--
	Other Process Use	--	42.1	X	45.1	6.7	0.0	X	--
	Direct Uses—Total Nonprocess	--	3.6	0.0	3.1	41.7	19.5	X	--
	Facility HVAC ⁶	--	4.5	X	30.8	11.3	14.7	X	--
	Facility Lighting	--	3.6	--	--	--	--	--	--
	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	--
	End use not reported	4.8	3.3	X	27.0	0.1	59.2	X	4.9
324122	Asphalt shingle and coating materials								
	Total fuel consumption	0.6	1.1	X	0.0	0.6	2.3	X	0.1
	Indirect Uses—Boiler Fuel	--	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	X	3.8	0.0	X	--
	Direct Uses—Total Process	--	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	--
	Direct Uses—Total Nonprocess	--	1.7	X	0.0	0.4	2.6	X	--
	Facility HVAC ⁶	--	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	--
	End use not reported	0.1	X	X	X	X	X	X	0.1
324191	Petroleum lubricating oil and grease manufacturing								
	Total fuel consumption	10.4	1.8	X	1.3	12.5	9.3	X	0.3
	Indirect Uses—Boiler Fuel	--	14.3	X	0.0	15.3	37.0	X	--
	Conventional Boiler Use	--	14.3	X	X	43.8	X	X	--
	CHP and/or Cogeneration Process	--	X	X	0.0	0.7	37.0	X	--
	Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	3.8	X	1.2	6.6	8.3	X	--
Facility HVAC ⁸	--	3.0	X	0.0	10.1	50.3	X	--
Facility Lighting	--	3.7	--	--	--	--	--	--
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	--
End use not reported	0.2	0.0	X	X	X	X	X	0.3

324199 All other petroleum and coal products manufacturing

Total fuel consumption	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	X	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	0.0	X	X	X	X	X	0.0

325 Chemicals

Total fuel consumption	2.0	3.4	0.0	10.1	2.9	4.9	0.1	1.2
Indirect Uses—Boiler Fuel	--	6.6	0.0	3.6	3.7	0.1	0.0	--
Conventional Boiler Use	--	6.6	0.0	25.5	2.7	0.1	0.0	--
CHP and/or Cogeneration Process	--	X	0.0	0.1	5.4	0.1	0.0	--
Direct Uses—Total Process	--	3.2	X	36.8	3.6	1.3	0.0	--
Process Heating	--	8.4	X	5.1	4.9	0.7	0.0	--
Process Cooling and Refrigeration	--	3.2	X	0.0	14.3	2.2	0.0	--
Machine Drive	--	4.4	X	62.3	3.4	10.3	0.0	--

Electro-Chemical Processes	--	1.1	--	--	--	--	--	--
Other Process Use	--	10.6	X	3.6	1.8	4.0	0.0	--
Direct Uses—Total Nonprocess	--	4.0	X	4.1	10.7	31.8	0.2	--
Facility HVAC ⁶	--	4.5	X	3.6	12.8	45.3	0.0	--
Facility Lighting	--	4.1	--	--	--	--	--	--
Other Facility Support	--	6.5	X	15.1	13.3	7.7	0.0	--
Onsite Transportation	--	8.6	--	5.2	13.8	36.4	--	--
Conventional Electricity Generation	--	--	X	9.3	0.1	18.5	0.0	--
Other Nonprocess Use	--	32.5	X	2.1	45.0	8.0	96.1	--
End use not reported	2.0	45.9	X	4.4	9.9	17.7	0.0	1.2

325110 Petrochemicals

Total fuel consumption	0.0	0.0	X	0.0	0.0	0.0	X	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	X	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁶	--	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	--
End use not reported	0.0	X	X	X	X	0.0	X	0.0

325120 Industrial gases

Total fuel consumption	8.0	16.9	X	7.2	0.2	66.9	X	11.2
Indirect Uses—Boiler Fuel	--	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	X	0.0	X	X	--
Direct Uses—Total Process	--	15.9	X	0.0	0.3	85.3	X	--
Process Heating	--	23.6	X	X	D	93.3	X	--
Process Cooling and Refrigeration	--	5.7	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	--
Direct Uses—Total Nonprocess	--	21.7	X	8.7	29.2	83.2	X	--

	Facility HVAC ⁶	--	28.0	X	0.0	25.5	X	X	--
	Facility Lighting	--	3.4	--	--	--	--	--	--
	Other Facility Support	--	25.9	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	--
	End use not reported	57.1	75.3	X	X	X	0.0	X	11.2

325180 Other basic inorganic chemical manufacturing

	Total fuel consumption	2.5	2.9	X	24.6	3.3	26.1	0.0	3.2
	Indirect Uses—Boiler Fuel	--	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	X	69.8	2.2	X	X	--
	Direct Uses—Total Process	--	2.7	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	--	7.9	X	X	11.2	X	X	--
	Machine Drive	--	7.5	X	45.0	6.8	22.5	X	--
	Electro-Chemical Processes	--	0.2	--	--	--	--	--	--
	Other Process Use	--	9.4	X	16.5	15.0	72.7	X	--
	Direct Uses—Total Nonprocess	--	14.0	X	7.2	17.0	31.7	X	--
	Facility HVAC ⁶	--	17.3	X	X	16.0	60.2	X	--
	Facility Lighting	--	12.2	--	--	--	--	--	--
	Other Facility Support	--	13.9	X	X	29.4	X	X	--
	Onsite Transportation	--	46.5	--	7.1	48.3	35.0	--	--
	Conventional Electricity Generation	--	--	X	23.9	X	35.9	X	--
	Other Nonprocess Use	--	10.3	X	25.2	17.2	57.7	X	--
	End use not reported	2.6	8.1	X	73.0	82.5	54.5	0.0	3.2

325193 Ethyl alcohol

	Total fuel consumption	2.6	2.6	X	3.1	2.7	0.5	0.0	18.8
	Indirect Uses—Boiler Fuel	--	12.2	X	X	3.8	X	0.0	--
	Conventional Boiler Use	--	12.2	X	X	4.1	X	X	--
	CHP and/or Cogeneration Process	--	X	X	X	10.0	X	0.0	--
	Direct Uses—Total Process	--	2.7	X	3.3	3.3	0.0	X	--
	Process Heating	--	7.8	X	X	4.0	X	X	--
	Process Cooling and Refrigeration	--	3.7	X	X	20.2	X	X	--
	Machine Drive	--	3.3	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	--
	Direct Uses—Total Nonprocess	--	4.9	X	3.2	4.0	1.1	X	--
	Facility HVAC ⁶	--	6.8	X	18.7	6.9	2.3	X	--
	Facility Lighting	--	5.0	--	--	--	--	--	--
	Other Facility Support	--	5.9	X	18.7	4.0	0.0	X	--

Onsite Transportation	--	5.3	--	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	--
End use not reported	11.6	X	X	X	X	5.4	0.0	18.8

325194 Cyclic crudes, intermediate and gum and wood chemicals

Total fuel consumption	0.0	0.0	X	0.0	0.0	0.0	X	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	0.0	X	--
Direct Uses—Total Process	--	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	X	X	0.0	X	--
Electro-Chemical Processes	--	0.0	--	--	--	--	--	--
Other Process Use	--	0.0	X	0.0	0.0	X	X	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	X	X	X	X	X	X	0.0

325199 All other basic organic chemical manufacturing

Total fuel consumption	2.7	2.5	0.0	11.3	3.9	10.7	0.0	2.7
Indirect Uses—Boiler Fuel	--	39.3	0.0	58.3	4.7	3.1	0.0	--
Conventional Boiler Use	--	39.3	0.0	60.4	2.6	70.4	0.0	--
CHP and/or Cogeneration Process	--	X	0.0	0.0	8.5	3.1	0.0	--
Direct Uses—Total Process	--	2.4	X	5.8	7.2	12.5	0.0	--
Process Heating	--	8.7	X	0.4	9.3	0.0	X	--
Process Cooling and Refrigeration	--	3.3	X	X	14.8	0.0	X	--
Machine Drive	--	3.0	X	10.1	27.4	13.2	X	--
Electro-Chemical Processes	--	0.6	--	--	--	--	--	--
Other Process Use	--	17.1	X	15.7	3.5	47.5	0.0	--
Direct Uses—Total Nonprocess	--	5.6	X	3.3	10.7	22.4	X	--
Facility HVAC ⁸	--	7.2	X	X	13.8	40.1	X	--
Facility Lighting	--	5.1	--	--	--	--	--	--
Other Facility Support	--	7.4	X	17.3	14.1	0.0	X	--
Onsite Transportation	--	9.0	--	3.7	65.7	23.4	--	--
Conventional Electricity Generation	--	--	X	7.3	0.0	52.0	X	--
Other Nonprocess Use	--	3.0	X	2.1	15.8	0.0	X	--

End use not reported		2.6	0.6	X	X	86.0	0.0	X	2.7
325211 Plastics materials and resins									
Total fuel consumption		1.2	7.0	X	4.0	1.3	3.6	X	1.2
Indirect Uses—Boiler Fuel		--	19.5	X	0.0	0.8	0.0	X	--
Conventional Boiler Use		--	19.5	X	0.0	2.7	0.0	X	--
CHP and/or Cogeneration Process		--	X	X	0.0	0.9	0.0	X	--
Direct Uses—Total Process		--	7.3	X	16.6	3.9	0.7	X	--
Process Heating		--	10.0	X	61.3	3.5	29.8	X	--
Process Cooling and Refrigeration		--	50.7	X	0.0	4.6	27.0	X	--
Machine Drive		--	6.0	X	6.9	9.8	54.0	X	--
Electro-Chemical Processes		--	9.4	--	--	--	--	--	--
Other Process Use		--	22.1	X	77.6	27.3	0.0	X	--
Direct Uses—Total Nonprocess		--	8.5	X	7.0	14.6	35.4	X	--
Facility HVAC ⁶		--	10.7	X	X	10.8	70.3	X	--
Facility Lighting		--	8.2	--	--	--	--	--	--
Other Facility Support		--	14.1	X	0.0	3.8	6.3	X	--
Onsite Transportation		--	13.9	--	6.9	0.0	34.6	--	--
Conventional Electricity Generation		--	--	X	48.7	64.2	76.3	X	--
Other Nonprocess Use		--	14.7	X	23.8	81.2	0.4	X	--
End use not reported		1.3	27.5	X	X	53.1	88.0	X	1.2
325212 Synthetic rubber									
Total fuel consumption		0.1	0.5	X	0.0	0.1	0.0	0.0	0.0
Indirect Uses—Boiler Fuel		--	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	X	0.0	X	0.0	--
Direct Uses—Total Process		--	0.3	X	0.0	0.0	0.0	0.0	--
Process Heating		--	1.7	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		--	0.3	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	--
Direct Uses—Total Nonprocess		--	1.3	X	0.0	4.5	0.0	0.0	--
Facility HVAC ⁶		--	1.0	X	X	7.7	X	0.0	--
Facility Lighting		--	1.0	--	--	--	--	--	--
Other Facility Support		--	3.5	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	--
End use not reported		0.0	X	X	X	X	0.0	X	0.0
325220 Artificial and synthetic fibers and filaments									

	2010	2011	2012	2013	2014	2015	2016	2017
Total fuel consumption	0.8	2.2	X	0.0	0.1	0.0	X	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	0.0	X	--
Direct Uses—Total Process	--	2.8	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	--	4.1	X	0.0	43.3	X	X	--
Electro-Chemical Processes	--	0.0	--	--	--	--	--	--
Other Process Use	--	0.0	X	X	0.0	0.0	X	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	X	X	X	X	X	X	0.0

325311 Nitrogenous fertilizers

	0.0	D	X	0.0	0.0	0.0	X	D
Total fuel consumption	0.0	D	X	0.0	0.0	0.0	X	D
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	0.0	X	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ^C	--	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	--
End use not reported	0.0	D	X	0.0	0.0	0.0	X	D

325312 Phosphatic fertilizers

[illegible]

Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	0.0	X	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	0.0	X	0.0	X	X	X	0.0

3254 Pharmaceuticals and medicines

Total fuel consumption	9.2	5.1	X	1.5	14.1	4.5	96.1	33.2
Indirect Uses—Boiler Fuel	--	10.6	X	0.0	6.2	0.4	X	--
Conventional Boiler Use	--	10.6	X	0.0	7.9	0.0	X	--
CHP and/or Cogeneration Process	--	X	X	0.0	10.7	0.7	X	--
Direct Uses—Total Process	--	3.6	X	2.1	37.4	1.4	X	--
Process Heating	--	6.8	X	0.0	32.0	0.1	X	--
Process Cooling and Refrigeration	--	3.0	X	0.0	53.1	0.0	X	--
Machine Drive	--	4.5	X	14.1	51.5	12.2	X	--
Electro-Chemical Processes	--	49.1	--	--	--	--	--	--
Other Process Use	--	9.6	X	4.0	8.8	0.0	X	--
Direct Uses—Total Nonprocess	--	7.4	X	2.4	24.4	11.9	96.1	--
Facility HVAC ⁸	--	6.2	X	0.2	24.1	0.1	X	--
Facility Lighting	--	10.4	--	--	--	--	--	--
Other Facility Support	--	15.9	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	--
End use not reported	25.2	25.6	X	X	82.7	31.9	X	33.2

325412 Pharmaceutical preparation

Total fuel consumption	15.7	5.0	X	1.2	24.8	5.8	X	43.3
Indirect Uses—Boiler Fuel	--	7.1	X	0.0	9.5	0.0	X	--
Conventional Boiler Use	--	7.1	X	0.0	14.7	0.0	X	--
CHP and/or Cogeneration Process	--	X	X	0.0	5.8	0.0	X	--

Direct Uses—Total Process	--	3.5	X	0.2	50.0	2.2	X	--
Process Heating	--	3.9	X	0.0	44.5	0.0	X	--
Process Cooling and Refrigeration	--	2.1	X	X	59.9	X	X	--
Machine Drive	--	5.4	X	14.2	64.0	57.4	X	--
Electro-Chemical Processes	--	1.9	--	--	--	--	--	--
Other Process Use	--	2.9	X	0.0	0.1	0.0	X	--
Direct Uses—Total Nonprocess	--	8.4	X	2.2	42.5	12.5	X	--
Facility HVAC ⁸	--	4.6	X	0.0	42.0	0.0	X	--
Facility Lighting	--	6.6	--	--	--	--	--	--
Other Facility Support	--	5.2	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	--
End use not reported	31.5	37.4	X	X	88.4	0.0	X	43.3

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

Total fuel consumption	0.0	0.0	X	0.0	0.0	0.0	X	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	X	X	--
Direct Uses—Total Process	--	0.0	X	0.0	0.0	X	X	--
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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	0.0	X	X	X	0.0	X	0.0

326 Plastics and rubber products

Total fuel consumption	14.0	18.6	90.7	44.7	16.0	34.1	X	57.8
Indirect Uses—Boiler Fuel	--	49.2	92.1	44.2	25.1	69.2	X	--
Conventional Boiler Use	--	49.2	92.1	62.1	42.9	X	X	--
CHP and/or Cogeneration Process	--	X	X	0.0	29.9	69.2	X	--
Direct Uses—Total Process	--	20.2	99.0	72.9	17.8	68.2	X	--
Process Heating	--	19.7	X	18.7	20.8	76.2	X	--
Process Cooling and Refrigeration	--	19.7	99.0	X	57.7	93.5	X	--

Machine Drive	--	23.2	99.0	99.0	41.8	91.1	X	--
Electro-Chemical Processes	--	54.0	--	--	--	--	--	--
Other Process Use	--	63.2	X	77.4	63.6	76.6	X	--
Direct Uses—Total Nonprocess	--	18.1	X	47.4	26.4	29.6	X	--
Facility HVAC ⁸	--	17.8	X	80.0	26.0	62.8	X	--
Facility Lighting	--	27.8	--	--	--	--	--	--
Other Facility Support	--	17.7	X	84.9	40.9	68.0	X	--
Onsite Transportation	--	40.3	--	56.5	84.9	30.0	--	--
Conventional Electricity Generation	--	--	X	73.6	97.3	91.7	X	--
Other Nonprocess Use	--	59.6	X	95.4	X	96.5	X	--
End use not reported	38.0	51.2	X	X	60.4	66.3	X	57.8

327 Nonmetallic mineral products

Total fuel consumption	12.3	26.5	0.0	23.7	4.9	19.6	10.5	31.7
Indirect Uses—Boiler Fuel	--	26.7	0.0	80.1	12.5	70.6	X	--
Conventional Boiler Use	--	26.7	X	X	13.6	96.1	X	--
CHP and/or Cogeneration Process	--	X	0.0	80.1	15.8	72.8	X	--
Direct Uses—Total Process	--	24.3	X	39.4	5.2	34.0	10.5	--
Process Heating	--	4.3	X	3.1	5.2	43.0	10.6	--
Process Cooling and Refrigeration	--	26.9	X	X	11.6	X	X	--
Machine Drive	--	35.1	X	39.8	12.4	39.3	0.0	--
Electro-Chemical Processes	--	33.2	--	--	--	--	--	--
Other Process Use	--	0.9	X	71.5	28.0	88.9	X	--
Direct Uses—Total Nonprocess	--	40.7	0.0	22.4	6.3	24.4	0.0	--
Facility HVAC ⁸	--	36.0	0.0	62.1	8.3	35.8	0.0	--
Facility Lighting	--	44.1	--	--	--	--	--	--
Other Facility Support	--	6.6	X	73.8	3.4	56.1	X	--
Onsite Transportation	--	74.0	--	23.2	10.4	26.6	--	--
Conventional Electricity Generation	--	--	0.0	83.6	0.1	X	X	--
Other Nonprocess Use	--	3.6	X	74.0	7.6	0.3	X	--
End use not reported	31.3	45.2	X	87.0	19.8	47.2	X	31.7

327120 Clay building material and refractories

Total fuel consumption	3.4	2.5	X	1.9	3.9	1.8	0.0	11.3
Indirect Uses—Boiler Fuel	--	16.0	X	X	8.2	90.8	X	--
Conventional Boiler Use	--	16.0	X	X	4.6	X	X	--
CHP and/or Cogeneration Process	--	X	X	X	8.3	90.8	X	--
Direct Uses—Total Process	--	2.7	X	2.5	4.1	0.3	0.0	--
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	--

Direct Uses—Total Nonprocess	--	4.3	X	2.1	7.8	3.5	X	--
Facility HVAC ⁶	--	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	--
End use not reported	11.1	14.2	X	X	X	61.8	X	11.3

327211 Flat glass

Total fuel consumption	0.2	1.2	X	0.0	0.1	0.0	X	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	X	X	--
Direct Uses—Total Process	--	1.0	X	0.0	0.1	0.0	X	--
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	--	7.2	X	0.0	1.1	X	X	--
Direct Uses—Total Nonprocess	--	2.0	X	0.0	0.4	0.0	X	--
Facility HVAC ⁶	--	1.6	X	X	0.6	0.0	X	--
Facility Lighting	--	3.0	--	--	--	--	--	--
Other Facility Support	--	3.1	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	--
End use not reported	0.0	X	X	X	0.0	0.0	X	0.0

327212 Other pressed and blown glass and glassware

Total fuel consumption	0.4	0.7	X	0.0	0.5	36.6	X	21.4
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	X	--
Direct Uses—Total Process	--	0.8	X	0.0	0.5	39.1	X	--
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	--
Direct Uses—Total Nonprocess	--	0.8	X	0.0	1.5	39.2	X	--
Facility HVAC ⁶	--	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	--
End use not reported	2.3	X	X	X	0.0	X	X	21.4

327213 Glass containers

Total fuel consumption	0.1	0.1	X	0.0	0.1	0.0	X	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	X	X	--
Direct Uses—Total Process	--	0.1	X	X	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	--	0.1	X	X	0.0	X	X	--
Electro-Chemical Processes	--	0.0	--	--	--	--	--	--
Other Process Use	--	0.0	X	X	0.0	X	X	--
Direct Uses—Total Nonprocess	--	0.1	X	0.0	0.1	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	X	X	X	X	X	X	0.0

327215 Glass products from purchased glass

Total fuel consumption	73.0	2.1	X	43.7	1.7	28.1	X	95.0
Indirect Uses—Boiler Fuel	--	4.2	X	X	10.4	X	X	--
Conventional Boiler Use	--	4.2	X	X	22.0	X	X	--
CHP and/or Cogeneration Process	--	X	X	X	2.0	X	X	--
Direct Uses—Total Process	--	2.2	X	X	1.6	39.3	X	--
Process Heating	--	3.5	X	X	1.7	49.6	X	--
Process Cooling and Refrigeration	--	4.6	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	--
Direct Uses—Total Nonprocess	--	2.6	X	43.7	4.2	8.1	X	--
Facility HVAC ⁸	--	2.5	X	75.4	4.9	16.6	X	--
Facility Lighting	--	3.3	--	--	--	--	--	--
Other Facility Support	--	3.9	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	--
End use not reported	94.8	24.9	X	X	35.1	57.0	X	95.0

327310	Cements
---------------	----------------

Total fuel consumption	5.9	6.1	X	3.1	2.1	0.5	13.8	7.2
Indirect Uses—Boiler Fuel	--	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	X	0.0	X	X	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	4.0	X	3.3	2.2	0.0	0.0	--
Facility HVAC ⁸	--	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	--
End use not reported	7.2	X	X	0.0	X	0.0	X	7.2

327410	Lime
---------------	-------------

Total fuel consumption	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0
Indirect Uses—Boiler Fuel	--	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	X	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	X	X	X	X	0.0	X	0.0

327420	Gypsum								
	Total fuel consumption	2.9	3.7	0.0	4.7	2.9	6.4	X	0.0
	Indirect Uses—Boiler Fuel	--	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	--	X	0.0	0.0	0.0	X	X	--
	Direct Uses—Total Process	--	4.4	X	3.6	3.3	0.0	X	--
	Process Heating	--	4.1	X	0.0	3.7	0.0	X	--
	Process Cooling and Refrigeration	--	2.4	X	X	0.5	X	X	--
	Machine Drive	--	5.4	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	--
	Direct Uses—Total Nonprocess	--	0.7	0.0	5.2	0.5	6.5	X	--
	Facility HVAC ⁸	--	0.8	0.0	0.0	1.1	0.0	X	--
	Facility Lighting	--	1.4	--	--	--	--	--	--
	Other Facility Support	--	0.9	X	0.0	0.4	X	X	--
	Onsite Transportation	--	0.7	--	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	--
	End use not reported	0.0	X	X	X	X	X	X	0.0
327993	Mineral wool								
	Total fuel consumption	16.0	13.2	X	0.0	16.9	67.3	0.0	0.0
	Indirect Uses—Boiler Fuel	--	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	X	0.0	X	X	--
	Direct Uses—Total Process	--	11.9	X	0.0	18.1	45.1	0.0	--
	Process Heating	--	22.9	X	0.0	18.6	0.0	0.0	--
	Process Cooling and Refrigeration	--	0.2	X	X	0.0	X	X	--
	Machine Drive	--	4.2	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	--
	Direct Uses—Total Nonprocess	--	20.7	X	0.0	4.5	68.7	X	--
	Facility HVAC ⁸	--	19.7	X	0.0	4.8	90.7	X	--
	Facility Lighting	--	20.9	--	--	--	--	--	--
	Other Facility Support	--	28.3	X	X	3.3	0.0	X	--
	Onsite Transportation	--	42.3	--	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	--
	End use not reported	0.0	0.0	X	X	X	X	X	0.0
331	Primary metals								

Total fuel consumption	0.2	0.3	0.0	11.7	0.2	4.1	0.1	0.2
Indirect Uses—Boiler Fuel	--	1.4	0.0	1.0	0.3	0.1	0.0	--
Conventional Boiler Use	--	1.4	0.0	0.0	0.8	0.1	X	--
CHP and/or Cogeneration Process	--	X	0.0	1.0	0.4	0.3	0.0	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.6	0.0	0.3	0.8	7.7	1.5	--
Facility HVAC ⁸	--	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	--	0.7	0.0	6.8	20.4	62.2	0.0	--
End use not reported	0.3	20.7	X	43.0	32.1	25.3	0.0	0.2

331110 Iron and steel mills and ferroalloys

Total fuel consumption	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indirect Uses—Boiler Fuel	--	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	--	X	0.0	X	0.0	0.0	0.0	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	0.0	0.0	0.0	0.0	0.0	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	X	X	0.0	X	0.0	0.0	0.0

3312 Steel products from purchased steel

Total fuel consumption	3.3	3.5	X	37.3	3.6	9.0	X	2.8
Indirect Uses—Boiler Fuel	--	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	X	4.2	3.2	X	--
	Direct Uses—Total Process	--	3.4	X	30.8	4.4	19.0	X	--
	Process Heating	--	6.7	X	X	4.6	37.5	X	--
	Process Cooling and Refrigeration	--	2.7	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	--	11.3	X	0.0	X	51.4	X	--
	Direct Uses—Total Nonprocess	--	5.2	X	4.8	4.9	11.1	X	--
	Facility HVAC ⁶	--	5.4	X	0.0	3.2	30.1	X	--
	Facility Lighting	--	6.8	--	--	--	--	--	--
	Other Facility Support	--	3.8	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	--
	End use not reported	32.3	86.9	X	43.1	X	0.0	X	2.8
3313	Alumina and aluminum production and processing								
	Total fuel consumption	0.2	0.2	X	0.0	0.1	16.9	X	0.1
	Indirect Uses—Boiler Fuel	--	1.9	X	X	0.1	0.1	X	--
	Conventional Boiler Use	--	1.9	X	X	0.3	X	X	--
	CHP and/or Cogeneration Process	--	X	X	X	0.1	0.1	X	--
	Direct Uses—Total Process	--	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	--	2.3	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	--
	Direct Uses—Total Nonprocess	--	0.5	X	0.0	0.5	21.3	X	--
	Facility HVAC ⁶	--	0.6	X	0.0	0.7	0.0	X	--
	Facility Lighting	--	0.7	--	--	--	--	--	--
	Other Facility Support	--	0.6	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	--
	End use not reported	0.4	61.0	X	X	0.0	0.0	X	0.1
331314	Secondary smelting and alloying of aluminum								
	Total fuel consumption	0.0	0.0	X	0.0	0.0	0.0	X	0.0
	Indirect Uses—Boiler Fuel	--	X	X	X	0.0	X	X	--
	Conventional Boiler Use	--	X	X	X	X	X	X	--
	CHP and/or Cogeneration Process	--	X	X	X	0.0	X	X	--
	Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	0.0	X	0.0	0.0	0.0	X	--
Facility HVAC ⁸	--	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	--
End use not reported	0.0	X	X	X	X	X	X	0.0

331315 Aluminum sheet, plate and foils

Total fuel consumption	0.2	0.5	X	0.0	0.1	0.5	X	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	X	--
Direct Uses—Total Process	--	0.4	X	0.0	0.1	0.0	X	--
Process Heating	--	2.1	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	--
Direct Uses—Total Nonprocess	--	0.6	X	0.0	0.1	0.7	X	--
Facility HVAC ⁸	--	0.7	X	0.0	0.1	0.0	X	--
Facility Lighting	--	1.0	--	--	--	--	--	--
Other Facility Support	--	0.3	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	--
End use not reported	0.0	0.0	X	X	0.0	X	X	0.0

331318 Other aluminum rolling, drawing and extruding

Total fuel consumption	1.0	1.4	X	0.0	0.7	26.7	X	0.1
Indirect Uses—Boiler Fuel	--	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	X	D	0.7	X	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	2.0	X	0.0	D	33.0	X	--
Facility HVAC ^B	--	1.9	X	X	D	0.0	X	--
Facility Lighting	--	2.3	--	--	--	--	--	--
Other Facility Support	--	2.8	X	X	0.3	0.0	X	--
Onsite Transportation	--	4.7	--	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	--
End use not reported	33.0	68.6	X	X	X	0.0	X	0.1

3314 Nonferrous metal (except aluminum) production and processing

Total fuel consumption	1.3	0.9	X	3.8	1.2	5.9	X	13.4
Indirect Uses—Boiler Fuel	--	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	X	0.0	1.6	0.0	X	--
Direct Uses—Total Process	--	0.9	X	28.6	1.6	1.3	X	--
Process Heating	--	1.4	X	0.0	1.8	1.4	X	--
Process Cooling and Refrigeration	--	0.9	X	91.3	47.1	X	X	--
Machine Drive	--	1.9	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	--
Direct Uses—Total Nonprocess	--	2.1	X	2.9	2.7	19.7	X	--
Facility HVAC ^B	--	2.5	X	0.0	2.1	6.5	X	--
Facility Lighting	--	2.5	--	--	--	--	--	--
Other Facility Support	--	2.7	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	--
End use not reported	13.0	10.0	X	0.0	47.6	0.0	X	13.4

331410 Nonferrous metal (except aluminum) smelting and refining

Total fuel consumption	0.3	0.1	X	0.0	0.4	8.1	X	0.0
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	0.0	X	--
Direct Uses—Total Process	--	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	--
Direct Uses—Total Nonprocess	--	2.0	X	0.0	3.0	14.9	X	--
Facility HVAC ^B	--	1.9	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	16.3	--	--
	Conventional Electricity Generation	--	--	X	0.0	0.0	0.0	X	--
	Other Nonprocess Use	--	X	X	X	X	X	X	--
	End use not reported	11.1	44.5	X	X	47.6	0.0	X	0.0
3315	Foundries								
	Total fuel consumption	1.4	1.3	X	2.8	1.3	4.9	66.3	7.8
	Indirect Uses—Boiler Fuel	--	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	X	64.6	8.1	21.7	X	--
	Direct Uses—Total Process	--	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	--	2.9	X	0.3	14.7	5.1	X	--
	Direct Uses—Total Nonprocess	--	1.3	X	2.5	1.8	2.0	66.3	--
	Facility HVAC ⁶	--	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	--
	End use not reported	7.7	10.5	X	0.0	69.8	43.6	X	7.8
331511	Iron foundries								
	Total fuel consumption	2.5	2.3	X	1.8	1.2	1.9	66.3	7.8
	Indirect Uses—Boiler Fuel	--	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	X	65.1	2.4	47.5	X	--
	Direct Uses—Total Process	--	2.4	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	--	7.1	X	0.0	14.2	0.1	X	--
	Direct Uses—Total Nonprocess	--	3.3	X	1.5	2.0	2.5	66.3	--
	Facility HVAC ⁶	--	4.1	X	28.9	2.0	1.0	66.3	--
	Facility Lighting	--	4.6	--	--	--	--	--	--
	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	--
	End use not reported	7.8	X	X	0.0	X	0.0	X	7.8
331523	Nonferrous metal die-casting foundries								
	Total fuel consumption	2.7	2.3	X	6.3	3.1	13.9	X	0.8
	Indirect Uses—Boiler Fuel	--	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	X	16.3	65.7	X	--
	Direct Uses—Total Process	--	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	--
	Direct Uses—Total Nonprocess	--	1.2	X	0.3	3.4	4.8	X	--
	Facility HVAC ⁸	--	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	--
	End use not reported	0.7	X	X	X	X	1.0	X	0.8
331524	Aluminum foundries, except die-casting								
	Total fuel consumption	3.3	3.5	X	48.9	3.7	17.3	X	0.0
	Indirect Uses—Boiler Fuel	--	24.0	X	X	0.6	22.7	X	--
	Conventional Boiler Use	--	24.0	X	X	0.0	22.7	X	--
	CHP and/or Cogeneration Process	--	X	X	X	1.1	X	X	--
	Direct Uses—Total Process	--	3.5	X	68.9	4.8	6.1	X	--
	Process Heating	--	7.6	X	69.7	5.3	7.5	X	--
	Process Cooling and Refrigeration	--	6.5	X	X	0.0	X	X	--
	Machine Drive	--	1.6	X	0.0	10.0	10.5	X	--
	Electro-Chemical Processes	--	54.5	--	--	--	--	--	--
	Other Process Use	--	43.8	X	X	42.6	0.0	X	--
	Direct Uses—Total Nonprocess	--	4.4	X	7.5	1.0	5.2	X	--
	Facility HVAC ⁸	--	3.8	X	69.7	1.1	0.1	X	--
	Facility Lighting	--	3.9	--	--	--	--	--	--
	Other Facility Support	--	5.8	X	X	0.6	X	X	--
	Onsite Transportation	--	17.7	--	0.0	X	5.4	--	--
	Conventional Electricity Generation	--	--	X	0.0	0.0	X	X	--
	Other Nonprocess Use	--	58.0	X	X	2.2	X	X	--
	End use not reported	51.5	0.0	X	X	0.0	77.4	X	0.0

332	Fabricated metal products								
	Total fuel consumption	23.5	15.5	99.5	34.4	29.7	21.6	X	69.7
	Indirect Uses—Boiler Fuel	--	39.0	99.5	X	46.2	66.6	X	--
	Conventional Boiler Use	--	39.0	X	X	56.1	69.9	X	--
	CHP and/or Cogeneration Process	--	X	99.5	X	54.1	75.7	X	--
	Direct Uses—Total Process	--	16.6	99.5	51.0	31.1	35.6	X	--
	Process Heating	--	38.7	X	0.0	31.8	48.5	X	--
	Process Cooling and Refrigeration	--	27.1	X	X	99.5	X	X	--
	Machine Drive	--	14.1	99.5	51.1	39.0	41.2	X	--
	Electro-Chemical Processes	--	32.6	--	--	--	--	--	--
	Other Process Use	--	46.1	X	0.0	60.7	82.4	X	--
	Direct Uses—Total Nonprocess	--	16.3	99.5	37.0	18.1	25.2	X	--
	Facility HVAC ^b	--	19.4	99.5	89.3	19.3	52.3	X	--
	Facility Lighting	--	16.4	--	--	--	--	--	--
	Other Facility Support	--	17.6	X	X	30.2	83.0	X	--
	Onsite Transportation	--	32.7	--	41.5	51.0	21.2	--	--
	Conventional Electricity Generation	--	--	X	72.7	57.1	99.5	X	--
	Other Nonprocess Use	--	67.4	X	71.3	79.4	99.5	X	--
	End use not reported	37.0	46.3	X	X	55.2	69.0	X	69.7

333	Machinery								
	Total fuel consumption	10.7	11.0	X	44.3	13.3	35.3	X	33.1
	Indirect Uses—Boiler Fuel	--	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	X	82.5	49.3	94.2	X	--
	Direct Uses—Total Process	--	11.8	X	50.0	21.7	55.6	X	--
	Process Heating	--	22.9	X	31.7	25.0	58.0	X	--
	Process Cooling and Refrigeration	--	20.2	X	31.7	64.4	X	X	--
	Machine Drive	--	14.0	X	80.2	42.4	60.8	X	--
	Electro-Chemical Processes	--	43.7	--	--	--	--	--	--
	Other Process Use	--	29.3	X	50.8	14.7	68.1	X	--
	Direct Uses—Total Nonprocess	--	12.6	X	42.1	11.8	30.2	X	--
	Facility HVAC ^b	--	10.4	X	68.2	11.7	58.1	X	--
	Facility Lighting	--	12.5	--	--	--	--	--	--
	Other Facility Support	--	19.6	X	99.0	20.9	96.6	X	--
	Onsite Transportation	--	56.7	--	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	--
	End use not reported	46.7	49.8	X	0.5	59.6	45.6	X	33.1

334	Computer and electronic products								
------------	---	--	--	--	--	--	--	--	--

Total fuel consumption	11.9	15.1	0.0	29.3	8.8	42.9	X	45.3
Indirect Uses—Boiler Fuel	--	24.7	X	0.0	16.9	0.0	X	--
Conventional Boiler Use	--	24.7	X	0.0	6.1	0.0	X	--
CHP and/or Cogeneration Process	--	X	X	0.0	31.2	X	X	--
Direct Uses—Total Process	--	21.2	0.0	29.4	16.5	94.2	X	--
Process Heating	--	11.6	X	32.3	21.3	96.0	X	--
Process Cooling and Refrigeration	--	18.3	X	0.0	75.7	X	X	--
Machine Drive	--	8.7	X	1.3	59.4	X	X	--
Electro-Chemical Processes	--	9.6	--	--	--	--	--	--
Other Process Use	--	50.3	0.0	65.1	3.1	84.6	X	--
Direct Uses—Total Nonprocess	--	9.1	X	35.8	9.0	54.3	X	--
Facility HVAC ⁸	--	8.9	X	67.7	7.4	0.0	X	--
Facility Lighting	--	11.7	--	--	--	--	--	--
Other Facility Support	--	16.4	X	0.0	30.4	0.0	X	--
Onsite Transportation	--	33.4	--	88.2	X	65.5	--	--
Conventional Electricity Generation	--	--	X	3.6	0.1	X	X	--
Other Nonprocess Use	--	20.1	X	16.4	69.3	99.0	X	--
End use not reported	34.5	45.9	X	X	15.8	66.9	X	45.3

334413 Semiconductors and related devices

Total fuel consumption	2.6	2.1	0.0	8.8	5.9	4.6	X	54.1
Indirect Uses—Boiler Fuel	--	16.7	X	0.0	19.4	0.0	X	--
Conventional Boiler Use	--	16.7	X	0.0	4.9	0.0	X	--
CHP and/or Cogeneration Process	--	X	X	0.0	49.1	X	X	--
Direct Uses—Total Process	--	2.0	0.0	28.9	2.1	0.0	X	--
Process Heating	--	8.8	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	--	3.0	--	--	--	--	--	--
Other Process Use	--	2.2	0.0	91.3	1.6	0.0	X	--
Direct Uses—Total Nonprocess	--	3.6	X	1.2	3.4	6.9	X	--
Facility HVAC ⁸	--	3.6	X	0.9	4.4	0.0	X	--
Facility Lighting	--	8.3	--	--	--	--	--	--
Other Facility Support	--	5.7	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	--
End use not reported	26.6	50.3	X	X	4.1	X	X	54.1

335 Electrical equip., appliances, and components

Total fuel consumption	10.0	10.1	X	50.7	14.4	24.8	X	2.3
Indirect Uses—Boiler Fuel	--	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	X	7.9	X	X	--
	Direct Uses—Total Process	--	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	--	19.5	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	--
	Direct Uses—Total Nonprocess	--	13.6	X	53.0	21.3	26.8	X	--
	Facility HVAC ⁶	--	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	--
	End use not reported	10.7	39.7	X	X	58.6	79.6	X	2.3
336	Transportation equipment								
	Total fuel consumption	5.4	6.3	96.5	6.5	6.7	26.7	X	3.7
	Indirect Uses—Boiler Fuel	--	8.3	X	0.0	7.3	30.0	X	--
	Conventional Boiler Use	--	8.3	X	0.0	7.7	2.3	X	--
	CHP and/or Cogeneration Process	--	X	X	0.0	12.8	63.6	X	--
	Direct Uses—Total Process	--	7.5	X	4.5	8.7	44.2	X	--
	Process Heating	--	12.1	X	0.0	9.1	58.4	X	--
	Process Cooling and Refrigeration	--	8.7	X	X	4.7	0.0	X	--
	Machine Drive	--	9.1	X	6.5	60.4	69.4	X	--
	Electro-Chemical Processes	--	37.1	--	--	--	--	--	--
	Other Process Use	--	15.4	X	1.7	15.7	24.3	X	--
	Direct Uses—Total Nonprocess	--	7.2	96.5	9.9	9.9	28.2	X	--
	Facility HVAC ⁶	--	8.2	96.5	57.9	10.2	59.1	X	--
	Facility Lighting	--	8.1	--	--	--	--	--	--
	Other Facility Support	--	12.5	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	84.4	X	--
	End use not reported	13.0	44.5	X	0.0	2.1	94.8	X	3.7
336110	Automobile and light duty motor vehicle manufacturing								
	Total fuel consumption	0.7	1.2	X	2.0	0.5	0.3	X	0.1
	Indirect Uses—Boiler Fuel	--	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	X	0.0	X	X	--
	Direct Uses—Total Process	--	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	--	0.7	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	--	1.8	X	0.0	0.0	0.0	X	--
Direct Uses—Total Nonprocess	--	2.2	X	2.2	0.5	0.3	X	--
Facility HVAC ⁸	--	2.5	X	X	0.5	0.0	X	--
Facility Lighting	--	1.1	--	--	--	--	--	--
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	--
End use not reported	0.1	0.0	X	0.0	0.0	X	X	0.1

3364 Aerospace product and parts

Total fuel consumption	4.0	5.3	X	2.9	3.1	14.5	X	2.2
Indirect Uses—Boiler Fuel	--	7.2	X	0.0	1.0	30.0	X	--
Conventional Boiler Use	--	7.2	X	0.0	2.1	2.3	X	--
CHP and/or Cogeneration Process	--	X	X	0.0	0.8	63.6	X	--
Direct Uses—Total Process	--	6.6	X	15.5	6.5	39.7	X	--
Process Heating	--	6.6	X	0.0	7.6	42.8	X	--
Process Cooling and Refrigeration	--	6.7	X	X	11.4	0.0	X	--
Machine Drive	--	9.3	X	16.3	10.8	46.7	X	--
Electro-Chemical Processes	--	13.9	--	--	--	--	--	--
Other Process Use	--	2.9	X	15.5	7.4	19.9	X	--
Direct Uses—Total Nonprocess	--	5.3	X	4.0	5.3	7.8	X	--
Facility HVAC ⁸	--	6.1	X	0.0	5.6	8.3	X	--
Facility Lighting	--	5.2	--	--	--	--	--	--
Other Facility Support	--	3.9	X	0.0	5.0	28.3	X	--
Onsite Transportation	--	6.3	--	5.2	1.3	13.7	--	--
Conventional Electricity Generation	--	--	X	5.5	7.5	45.4	X	--
Other Nonprocess Use	--	8.3	X	1.6	22.4	4.3	X	--
End use not reported	6.5	34.5	X	X	15.7	64.3	X	2.2

336411 Aircraft

Total fuel consumption	4.7	5.6	X	2.5	4.3	26.3	X	27.4
Indirect Uses—Boiler Fuel	--	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	X	0.0	0.0	X	X	--
Direct Uses—Total Process	--	9.3	X	0.0	11.6	56.7	X	--
Process Heating	--	13.1	X	0.0	12.2	56.9	X	--
Process Cooling and Refrigeration	--	14.6	X	X	0.0	0.0	X	--
Machine Drive	--	12.1	X	0.0	0.0	0.0	X	--

	Electro-Chemical Processes	--	23.7	--	--	--	--	--	--
	Other Process Use	--	7.0	X	X	0.0	X	X	--
	Direct Uses—Total Nonprocess	--	3.6	X	3.2	5.2	16.7	X	--
	Facility HVAC ⁶	--	4.6	X	X	5.4	51.9	X	--
	Facility Lighting	--	3.4	--	--	--	--	--	--
	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	--
	End use not reported	49.9	76.9	X	X	X	69.5	X	27.4

337 Furniture and related products

	Total fuel consumption	32.0	50.8	X	47.1	15.9	26.1	84.0	25.0
	Indirect Uses—Boiler Fuel	--	43.0	X	X	38.9	73.6	X	--
	Conventional Boiler Use	--	43.0	X	X	59.0	X	X	--
	CHP and/or Cogeneration Process	--	X	X	X	51.6	73.6	X	--
	Direct Uses—Total Process	--	44.1	X	99.0	24.3	55.5	X	--
	Process Heating	--	30.3	X	X	25.1	67.5	X	--
	Process Cooling and Refrigeration	--	87.9	X	X	76.7	X	X	--
	Machine Drive	--	39.5	X	99.0	87.5	62.0	X	--
	Electro-Chemical Processes	--	43.8	--	--	--	--	--	--
	Other Process Use	--	76.7	X	X	X	77.5	X	--
	Direct Uses—Total Nonprocess	--	61.4	X	28.1	19.1	27.0	84.0	--
	Facility HVAC ⁶	--	61.0	X	X	19.4	41.1	84.0	--
	Facility Lighting	--	61.1	--	--	--	--	--	--
	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	--
	End use not reported	26.5	42.2	X	99.0	70.4	99.0	X	25.0

339 Miscellaneous

	Total fuel consumption	15.8	16.3	X	47.5	20.5	33.6	X	49.5
	Indirect Uses—Boiler Fuel	--	27.5	X	X	45.2	X	X	--
	Conventional Boiler Use	--	27.5	X	X	55.4	X	X	--
	CHP and/or Cogeneration Process	--	X	X	X	44.7	X	X	--
	Direct Uses—Total Process	--	19.8	X	99.0	32.6	48.1	X	--
	Process Heating	--	39.2	X	X	34.6	70.1	X	--
	Process Cooling and Refrigeration	--	23.3	X	X	80.0	51.0	X	--
	Machine Drive	--	27.2	X	99.0	72.9	71.1	X	--
	Electro-Chemical Processes	--	60.2	--	--	--	--	--	--
	Other Process Use	--	32.6	X	X	45.1	99.0	X	--
	Direct Uses—Total Nonprocess	--	16.4	X	54.0	25.6	36.4	X	--

Facility HVAC ^g	--	17.6	X	75.9	27.2	53.5	X	--
Facility Lighting	--	16.5	--	--	--	--	--	--
Other Facility Support	--	14.1	X	X	36.1	76.6	X	--
Onsite Transportation	--	50.9	--	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	--
End use not reported		65.6	X	X	61.8	61.5	X	49.5

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.

^a The Bureau of the Census classifies establishments using the 2022 North American Industry Classification System (NAICS).

^b *Net electricity* is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

^c *Distillate fuel oil* includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

^d *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.

^e 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).

^f *Other* includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power.

^g 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).