

Released: August 2025
Next MECS will be fielded in 2027

Table 5.4 End uses of fuel consumption, 2022

Level: National data

Row: End uses within NAICS codes

Column: Energy sources, including net demand for electricity

Unit: Trillion British thermal units

NAICS code ^a	End use	Net demand for 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)
Total United States							
311 - 339	All manufacturing industries						
	Total fuel consumption	3,182	13	79	7,087	85	398
	Indirect Uses—Boiler Fuel	59	8	12	2,993	14	97
	Conventional Boiler Use	59	2	2	869	7	14
	CHP and/or Cogeneration Process	--	5	9	2,124	7	83
	Direct Uses—Total Process	2,472	2	25	3,512	44	224
	Process Heating	265	2	4	2,946	37	205
	Process Cooling and Refrigeration	250	*	Q	44	*	*
	Machine Drive	1,652	*	10	250	3	3
	Electro-Chemical Processes	212	--	--	--	--	--
	Other Process Use	93	*	9	273	4	16
	Direct Uses—Total Nonprocess	584	3	39	544	25	*
	Facility HVAC ^f	298	*	1	412	6	*
	Facility Lighting	184	--	--	--	--	--
	Other Facility Support	59	*	*	56	1	*
	Onsite Transportation	23	--	31	8	18	--
	Conventional Electricity Generation	--	*	2	43	*	*
	Other Nonprocess Use	20	2	5	26	1	*
	End use not reported	67	*	4	38	1	77
311	Food						
	Total fuel consumption	296	*	14	704	8	93
	Indirect Uses—Boiler Fuel	11	*	4	394	3	46
	Conventional Boiler Use	11	*	1	135	Q	6
	CHP and/or Cogeneration Process	--	*	4	258	1	40

Direct Uses—Total Process	228	*	Q	223	3	7
Process Heating	14	*	*	172	Q	6
Process Cooling and Refrigeration	76	*	Q	14	*	0
Machine Drive	132	*	Q	22	*	1
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	5	0	*	15	*	0
Direct Uses—Total Nonprocess	52	*	7	74	1	0
Facility HVAC ^f	24	*	*	51	*	0
Facility Lighting	17	--	--	--	--	--
Other Facility Support	7	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	5	0	Q	14	*	40

3112 Grain and oilseed milling

Total fuel consumption	74	*	1	170	*	67
Indirect Uses—Boiler Fuel	2	*	*	122	*	26
Conventional Boiler Use	2	*	*	62	0	3
CHP and/or Cogeneration Process	--	0	0	59	*	24
Direct Uses—Total Process	66	*	*	43	*	0
Process Heating	4	*	*	41	*	0
Process Cooling and Refrigeration	7	0	0	*	0	0
Machine Drive	54	0	*	2	*	0
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	1	0	0	1	*	0
Direct Uses—Total Nonprocess	6	*	*	4	*	0
Facility HVAC ^f	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	*	0	0	1	*	40

311221 Wet corn milling and starch manufacturing

Total fuel consumption	33	0	*	69	*	40
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	33	0	*
Direct Uses—Total Process	31	0	*	20	*	0

Process Heating	2	0	*	20	*	0
Process Cooling and Refrigeration	6	0	0	*	0	0
Machine Drive	23	0	*	0	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	0	0	0	*	0	0
Direct Uses—Total Nonprocess	2	0	*	1	*	0
Facility HVAC ^f	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	0	0	0	0	0	40

31131 Sugar manufacturing

Total fuel consumption	11	*	*	39	*	26
Indirect Uses—Boiler Fuel	1	*	*	25	0	19
Conventional Boiler Use	1	*	0	4	0	3
CHP and/or Cogeneration Process	--	0	*	21	0	16
Direct Uses—Total Process	8	0	*	14	*	7
Process Heating	1	0	0	12	0	6
Process Cooling and Refrigeration	1	0	0	0	0	0
Machine Drive	6	0	*	1	*	1
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	0	0	0
Direct Uses—Total Nonprocess	2	0	*	1	*	0
Facility HVAC ^f	1	0	0	*	*	0
Facility Lighting	1	--	--	--	--	--
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	0	0	0	0	0	0

3114 Fruit and vegetable preserving and specialty foods

Total fuel consumption	33	*	*	88	1	0
Indirect Uses—Boiler Fuel	2	0	*	58	*	0
Conventional Boiler Use	2	0	*	17	*	0
CHP and/or Cogeneration Process	--	0	*	41	*	0
Direct Uses—Total Process	24	*	*	19	*	0
Process Heating	2	*	0	16	*	0

Process Cooling and Refrigeration	12	0	*	*	*	0
Machine Drive	10	0	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	2	*	0
Direct Uses—Total Nonprocess	7	*	*	11	*	0
Facility HVAC ^f	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	*	0	*	1	*	0

3115 Dairy product manufacturing

Total fuel consumption	46	*	2	118	Q	0
Indirect Uses—Boiler Fuel	2	*	*	77	Q	0
Conventional Boiler Use	2	0	*	24	Q	0
CHP and/or Cogeneration Process	--	*	*	53	*	0
Direct Uses—Total Process	34	*	*	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 ^f	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	1	0	0	Q	*	0

3116 Animal slaughtering and processing

Total fuel consumption	76	*	3	163	2	0
Indirect Uses—Boiler Fuel	3	*	2	79	1	0
Conventional Boiler Use	3	0	*	21	1	0
CHP and/or Cogeneration Process	--	*	1	58	*	0
Direct Uses—Total Process	58	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	3	0	*	11	*	0

312 Beverage and tobacco products

Total fuel consumption	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	*	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 ^f	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	*	0	*	*	*	0

3121 Beverages

Total fuel consumption	49	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	*	Q	*	1
Direct Uses—Total Process	38	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 ^c	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	*	0	*	*	*	0

3122	Tobacco
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Total fuel consumption	3	0	*	4	*	0
Indirect Uses—Boiler Fuel	*	0	*	4	*	0
Conventional Boiler Use	*	0	*	2	*	0
CHP and/or Cogeneration Process	--	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 ^f	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
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Total fuel consumption	30	0	*	24	*	*
Indirect Uses—Boiler Fuel	1	0	*	10	*	*
Conventional Boiler Use	1	0	*	5	*	*
CHP and/or Cogeneration Process	--	0	*	5	*	*
Direct Uses—Total Process	22	0	*	12	*	*
Process Heating	2	0	*	10	*	*
Process Cooling and Refrigeration	2	0	0	*	0	*
Machine Drive	18	0	*	1	*	*
Electro-Chemical Processes	*	--	--	--	--	--

Other Process Use	*	0	*	*	*	0
Direct Uses—Total Nonprocess	7	0	*	1	*	0
Facility HVAC ^f	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	1	0	*	Q	*	0

314 Textile product mills

Total fuel consumption	11	0	*	10	Q	0
Indirect Uses—Boiler Fuel	*	0	*	3	*	0
Conventional Boiler Use	*	0	*	2	*	0
CHP and/or Cogeneration Process	--	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 ^f	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	1	0	0	Q	0	0

315 Apparel

Total fuel consumption	2	0	*	1	*	0
Indirect Uses—Boiler Fuel	*	0	*	*	*	0
Conventional Boiler Use	*	0	*	*	0	0
CHP and/or Cogeneration Process	--	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 ^f	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	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
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 ^f	*	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	76	*	11	80	3	*
Indirect Uses—Boiler Fuel	3	0	1	17	*	0
Conventional Boiler Use	3	0	1	3	*	0
CHP and/or Cogeneration Process	--	0	*	14	*	0
Direct Uses—Total Process	62	*	3	54	1	*
Process Heating	8	*	1	50	*	*
Process Cooling and Refrigeration	1	0	*	*	*	0
Machine Drive	51	*	1	2	*	0
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	1	0	*	2	*	0
Direct Uses—Total Nonprocess	10	*	7	8	2	0

Facility HVAC ^f	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	1	0	*	1	*	0

321113 Sawmills

Total fuel consumption	32	*	7	18	*	0
Indirect Uses—Boiler Fuel	1	0	1	3	*	0
Conventional Boiler Use	1	0	1	1	*	0
CHP and/or Cogeneration Process	--	0	*	2	*	0
Direct Uses—Total Process	28	*	2	13	*	0
Process Heating	2	*	1	13	*	0
Process Cooling and Refrigeration	*	0	0	0	0	0
Machine Drive	25	*	1	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	*	*	0
Direct Uses—Total Nonprocess	3	*	4	1	*	0
Facility HVAC ^f	1	*	*	1	*	0
Facility Lighting	2	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	4	*	*	--
Conventional Electricity Generation	--	0	*	0	*	0
Other Nonprocess Use	*	0	*	0	*	0
End use not reported	*	0	*	1	*	0

3212 Veneer, plywood, and engineered wood product manufacturing

Total fuel consumption	20	*	1	37	1	0
Indirect Uses—Boiler Fuel	1	0	*	11	*	0
Conventional Boiler Use	1	0	*	2	*	0
CHP and/or Cogeneration Process	--	0	*	9	*	0
Direct Uses—Total Process	16	*	*	25	*	0
Process Heating	1	*	*	22	*	0
Process Cooling and Refrigeration	*	0	0	*	*	0
Machine Drive	15	*	*	1	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	2	*	0
Direct Uses—Total Nonprocess	3	*	1	2	1	0
Facility HVAC ^f	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	1	0	*	*	*	0
321219 Reconstituted wood products						
Total fuel consumption	11	*	*	22	*	0
Indirect Uses—Boiler Fuel	1	0	*	3	*	0
Conventional Boiler Use	1	0	0		0	0
CHP and/or Cogeneration Process	--	0	*	2	*	0
Direct Uses—Total Process	9	*	*	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 ¹	*	*	0	1	*	0
Facility Lighting	1	--	--	--	--	--
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	1	0	0	*	0	0
3219 Other wood products						
Total fuel consumption	22	0	1	21	1	*
Indirect Uses—Boiler Fuel	*	0	*	2	*	0
Conventional Boiler Use	*	0	*	1	0	0
CHP and/or Cogeneration Process	--	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 ¹	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	*	0	*	*	*	0

322 Paper

Total fuel consumption	330	8	4	617	3	32
Indirect Uses—Boiler Fuel	11	7	2	408	*	32
Conventional Boiler Use	11	2	*	70	*	*
CHP and/or Cogeneration Process	--	5	2	339	*	32
Direct Uses—Total Process	272	*	*	174	*	*
Process Heating	14	*	*	147	*	0
Process Cooling and Refrigeration	7	0	0	2	0	0
Machine Drive	246	0	*	22	*	*
Electro-Chemical Processes	2	--	--	--	--	--
Other Process Use	3	0	*	3	*	0
Direct Uses—Total Nonprocess	46	*	2	33	2	*
Facility HVAC ^f	20	0	*	20	*	0
Facility Lighting	16	--	--	--	--	--
Other Facility Support	5	0	*	2	*	0
Onsite Transportation	1	--	2	1	2	--
Conventional Electricity Generation	--	*	*	8	*	*
Other Nonprocess Use	3	0	*	1	*	0
End use not reported	Q	*	0	Q	*	0

322110 Pulp mills

Total fuel consumption	67	1	1	55	*	2
Indirect Uses—Boiler Fuel	2	1	*	33	*	2
Conventional Boiler Use	2	0	*	1	0	0
CHP and/or Cogeneration Process	--	1	*	32	*	2
Direct Uses—Total Process	57	0	*	22	0	0
Process Heating	2	0	*	21	0	0
Process Cooling and Refrigeration	1	0	0	0	0	0
Machine Drive	53	0	*	*	0	0
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	*	0	*	0	0	0
Direct Uses—Total Nonprocess	8	0	*	*	*	0
Facility HVAC ^f	5	0	*	*	*	0
Facility Lighting	3	--	--	--	--	--
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	0	0	0	0	0	0

322120 Paper mills

Total fuel consumption	87	2	1	188	*	14
Indirect Uses—Boiler Fuel	2	2	1	130	*	14
Conventional Boiler Use	2	*	*	30	*	0
CHP and/or Cogeneration Process	--	2	1	101	*	14
Direct Uses—Total Process	75	0	*	53	*	0
Process Heating	4	0	0	47	*	0
Process Cooling and Refrigeration	2	0	0	0	0	0
Machine Drive	69	0	*	6	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	*	0	0
Direct Uses—Total Nonprocess	10	*	*	4	*	0
Facility HVAC ^f	4	0	*	3	*	0
Facility Lighting	3	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	*	*	*	*	0
Other Nonprocess Use	2	0	*	1	0	0
End use not reported	0	0	0	0	*	0

322130 Paperboard mills

Total fuel consumption	118	3	2	279	*	13
Indirect Uses—Boiler Fuel	6	2	1	197	*	13
Conventional Boiler Use	6	1	*	27	0	*
CHP and/or Cogeneration Process	--	2	1	170	*	13
Direct Uses—Total Process	96	*	*	65	*	*
Process Heating	6	*	*	52	*	0
Process Cooling and Refrigeration	3	0	0	2	0	0
Machine Drive	85	0	*	9	*	*
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	2	0	*	2	*	0
Direct Uses—Total Nonprocess	16	0	1	17	*	*
Facility HVAC ^f	6	0	*	7	*	0
Facility Lighting	6	--	--	--	--	--
Other Facility Support	2	0	*	2	*	0
Onsite Transportation	*	--	1	1	*	--

Conventional Electricity Generation	--	0	0	7	*	*
Other Nonprocess Use	1	0	0	*	*	0
End use not reported	0	*	0	0	*	0

323 Printing and related support

Total fuel consumption	33	*	*	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
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	12	*	*	9	*	0
Facility HVAC ^f	5	*	0	7	*	0
Facility Lighting	5	--	--	--	--	--
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	237	2	7	1,109	29	7
Indirect Uses—Boiler Fuel	1	*	*	352	5	0
Conventional Boiler Use	1	0	*	108	4	0
CHP and/or Cogeneration Process	--	*	*	245	1	0
Direct Uses—Total Process	222	2	3	707	23	7
Process Heating	7	2	1	628	23	0
Process Cooling and Refrigeration	11	0	0	6	*	0
Machine Drive	196	0	2	15	1	0
Electro-Chemical Processes	8	--	--	--	--	--
Other Process Use	1	0	*	57	*	7
Direct Uses—Total Nonprocess	14	*	3	44	*	0
Facility HVAC ^f	7	0	*	5	*	0
Facility Lighting	5	--	--	--	--	--
Other Facility Support	2	0	*	1	*	0
Onsite Transportation	*	--	3	*	*	--
Conventional Electricity Generation	--	0	*	25	*	0

Other Nonprocess Use	*	*	1	12	*	0
End use not reported	*	*	*	6	*	0

324110	Petroleum refineries
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Total fuel consumption	224	*	3	1,021	27	0
Indirect Uses—Boiler Fuel	1	*	0	337	5	0
Conventional Boiler Use	1	0	0	103	4	0
CHP and/or Cogeneration Process	--	*	0	233	1	0
Direct Uses—Total Process	211	*	1	640	23	0
Process Heating	6	*	*	574	22	0
Process Cooling and Refrigeration	10	0	0	6		0
Machine Drive	187	0	1	4	*	0
Electro-Chemical Processes	7	--	--	--	--	--
Other Process Use	1	0	*	55	*	0
Direct Uses—Total Nonprocess	12	0	1	39	*	0
Facility HVAC ^f	6	0	*	2	*	0
Facility Lighting	4	--	--	--	--	--
Other Facility Support	2	0	0	*	*	0
Onsite Transportation	*	--	1	*	*	--
Conventional Electricity Generation	--	0	*	25	*	0
Other Nonprocess Use	*	0	*	11	*	0
End use not reported	0	*	*	6	*	0

324121	Asphalt paving mixture and block
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Total fuel consumption	6	2	4	53	1	0
Indirect Uses—Boiler Fuel	*	0	*	4	*	0
Conventional Boiler Use	*	0	0	*	*	0
CHP and/or Cogeneration Process	--	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	4	0	1	8	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	1	*	0
Direct Uses—Total Nonprocess	1	*	2	2	*	0
Facility HVAC ^f	*	0	*	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	1	0	*	--
Conventional Electricity Generation	--	0	*	0	0	0
Other Nonprocess Use	*	*	*	Q	0	0

End use not reported		*	0	*	*	*	0
324122 Asphalt shingle and coating materials							
Total fuel consumption		3	0	*	11	*	0
Indirect Uses—Boiler Fuel		*	0	*	2	*	0
Conventional Boiler Use		*	0	*	1	*	0
CHP and/or Cogeneration Process		--	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 ^c		*	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		0	0	0	0	0	0
324191 Petroleum lubricating oil and grease manufacturing							
Total fuel consumption		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	*	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 ^f		*	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	0

324199	All other petroleum and coal products manufacturing					

325110 Petrochemicals

Total fuel consumption	42	0	*	405	4	0
Indirect Uses—Boiler Fuel	2	0	*	181	*	0
Conventional Boiler Use	2	0	*	50	*	0
CHP and/or Cogeneration Process	--	0	0	131	*	0
Direct Uses—Total Process	38	0	*	219	4	0
Process Heating	1	0	*	181	4	0
Process Cooling and Refrigeration	7	0	0	0	*	0
Machine Drive	29	0	*	11	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	27	*	0
Direct Uses—Total Nonprocess	2	0	*	5	*	0
Facility HVAC ¹	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	0	0	0	0	*	0

325120 Industrial gases

Total fuel consumption	104	0	*	94	*	0
Indirect Uses—Boiler Fuel	*	0	*	53	0	0
Conventional Boiler Use	*	0	*	9	0	0
CHP and/or Cogeneration Process	--	0	0	44	0	0
Direct Uses—Total Process	82	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	3	--	--	--	--	--
Other Process Use	7	0	0	8	*	0
Direct Uses—Total Nonprocess	4	0	*	*	*	0
Facility HVAC ¹	3	0	*	*	0	0
Facility Lighting	1	--	--	--	--	--
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	0	0	0	*	0

325180 Other basic inorganic chemical manufacturing

	Total fuel consumption	134	0	*	215	*	24
	Indirect Uses—Boiler Fuel	1	0	*	108	*	6
	Conventional Boiler Use	1	0	*	14	*	6
	CHP and/or Cogeneration Process	--	0	*	94	0	0
	Direct Uses—Total Process	125	0	*	102	*	1
	Process Heating	7	0	*	44	*	1
	Process Cooling and Refrigeration	5	0	0	*	0	0
	Machine Drive	33	0	*	56	*	0
	Electro-Chemical Processes	79	--	--	--	--	--
	Other Process Use	*	0	*	2	*	0
	Direct Uses—Total Nonprocess	9	0	*	5	*	0
	Facility HVAC ^f	4	0	0	4	*	0
	Facility Lighting	3	--	--	--	--	--
	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	*	0	*	*	*	17
325193	Ethyl alcohol						
	Total fuel consumption	39	0	*	382	*	20
	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	70	0	*
	Direct Uses—Total Process	35	0	*	157	*	0
	Process Heating	1	0	0	130	0	0
	Process Cooling and Refrigeration	6	0	0	6	0	0
	Machine Drive	28	0	*	13	*	0
	Electro-Chemical Processes	*	--	--	--	--	--
	Other Process Use	*	0	*	8	*	0
	Direct Uses—Total Nonprocess	2	0	*	8	*	0
	Facility HVAC ^f	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	0	0	0	0	*	19
325194	Cyclic crudes, intermediate and gum and wood chemicals						

Total fuel consumption	16	0	1	39	5	0
Indirect Uses—Boiler Fuel	*	0	*	16	3	0
Conventional Boiler Use	*	0	*	4	0	0
CHP and/or Cogeneration Process	--	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 ^f	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	0	0	0	0	0	0

325199 All other basic organic chemical manufacturing

Total fuel consumption	82	*	1	310	*	17
Indirect Uses—Boiler Fuel	1	*	*	193	*	10
Conventional Boiler Use	1	*	*	88	*	1
CHP and/or Cogeneration Process	--	*	*	105	*	9
Direct Uses—Total Process	70	0	*	112	*	7
Process Heating	1	0	*	86	*	0
Process Cooling and Refrigeration	10	0	0	1	*	0
Machine Drive	48	0	*	2	*	0
Electro-Chemical Processes	10	--	--	--	--	--
Other Process Use	*	0	*	23	*	7
Direct Uses—Total Nonprocess	9	0	1	4	*	0
Facility HVAC ^f	4	0	0	3	*	0
Facility Lighting	3	--	--	--	--	--
Other Facility Support	1	0	*	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	1	0	*	*	*	0
End use not reported	3	0	0	*	*	0

325211 Plastics materials and resins

Total fuel consumption	134	0	1	502	4	0
Indirect Uses—Boiler Fuel	2	0	*	379	*	0
Conventional Boiler Use	2	0	*	44	*	0
CHP and/or Cogeneration Process	--	0	*	335	*	0
Direct Uses—Total Process	118	0	*	115	3	0
Process Heating	4	0	*	98	*	0
Process Cooling and Refrigeration	12	0	*	1	*	0
Machine Drive	76	0	*	8	*	0
Electro-Chemical Processes	25	--	--	--	--	--
Other Process Use	1	0	*	8	3	0
Direct Uses—Total Nonprocess	13	0	1	7	*	0
Facility HVAC ^c	7	0	0	5	*	0
Facility Lighting	4	--	--	--	--	--
Other Facility Support	2	0	*	1	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	0	*	*	*	0
Other Nonprocess Use	*	0	*	Q	*	0
End use not reported	*	0	0	*	*	0

325212 Synthetic rubber

Total fuel consumption	5	0	*	27	*	2
Indirect Uses—Boiler Fuel	*	0	*	22	0	1
Conventional Boiler Use	*	0	*	16	0	*
CHP and/or Cogeneration Process	--	0	0	6	0	*
Direct Uses—Total Process	4	0	*	4	*	1
Process Heating	*	0	0	4	*	*
Process Cooling and Refrigeration	1	0	*	*	*	*
Machine Drive	3	0	*	*	*	*
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	*	0	*	1	0	0
Direct Uses—Total Nonprocess	1	0	*	*	*	*
Facility HVAC ^f	*	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	0	0	0	0	*	0

325220 Artificial and synthetic fibers and filaments

Total fuel consumption	9	0	*	17	*	0
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Indirect Uses—Boiler Fuel	*	0	*	11	*	0
Conventional Boiler Use	*	0	*	6	0	0
CHP and/or Cogeneration Process	--	0	*	5	*	0
Direct Uses—Total Process	7	0	*	2	*	0
Process Heating	1	0	0	2	*	0
Process Cooling and Refrigeration	1	0	0	0	0	0
Machine Drive	5	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	19	0	*	196	*	0
Indirect Uses—Boiler Fuel	*	0	*	45	*	0
Conventional Boiler Use	*	0	0	21	*	0
CHP and/or Cogeneration Process	--	0	*	24	*	0
Direct Uses—Total Process	16	0	*	146	*	0
Process Heating	*	0	*	110	*	0
Process Cooling and Refrigeration	2	0	0	*	*	0
Machine Drive	12	0	*	1	*	0
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	*	0	*	35	0	0
Direct Uses—Total Nonprocess	2	0	*	1	*	0
Facility HVAC ^f	1	0	0	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	*	*	*	0
Onsite Transportation	*	--	*	0	*	--
Conventional Electricity Generation	--	0	*	*	0	0
Other Nonprocess Use	*	0	*	*	*	0
End use not reported	1	0	*	3	*	0

325312 Phosphatic fertilizers

Total fuel consumption	12	*	3	3	*	1
Indirect Uses—Boiler Fuel	*	*	2	2	*	0

Conventional Boiler Use	*	*	0	1	0	0
CHP and/or Cogeneration Process	--	0	2	1	*	0
Direct Uses—Total Process	7	0	*	1	*	1
Process Heating	*	0	*	1	*	1
Process Cooling and Refrigeration	*	0	0	*	0	0
Machine Drive	7	0	*	0	*	0
Electro-Chemical Processes	0	--	--	--	--	--
Other Process Use	0	0	*	0	0	0
Direct Uses—Total Nonprocess	*	0	*	*	*	0
Facility HVAC ^c	*	0	*	*	*	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	4	0	*	0	0	0

3254 Pharmaceuticals and medicines

Total fuel consumption	48	0	*	70	*	*
Indirect Uses—Boiler Fuel	1	0	*	36	*	0
Conventional Boiler Use	1	0	*	21	*	0
CHP and/or Cogeneration Process	--	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	12	0	*	Q	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	1	*	0
Direct Uses—Total Nonprocess	23	0	*	22	*	*
Facility HVAC ^f	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	1	0	0	*	*	0

325412 Pharmaceutical preparation

Total fuel consumption	23	0	*	38	*	0
Indirect Uses—Boiler Fuel	*	0	*	18	*	0
Conventional Boiler Use	*	0	*	11	*	0

CHP and/or Cogeneration Process	--	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 ^f	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	1	0	0	*	*	0

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

Total fuel consumption	2	0	*	3	*	0
Indirect Uses—Boiler Fuel	*	0	0	2	0	0
Conventional Boiler Use	*	0	0	1	0	0
CHP and/or Cogeneration Process	--	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 ^f	*	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	*	0	0	0	*	0

326 Plastics and rubber products

Total fuel consumption	243	*	*	106	4	0
Indirect Uses—Boiler Fuel	9	*	*	43	*	0
Conventional Boiler Use	9	*	*	14	0	0
CHP and/or Cogeneration Process	--	0	*	29	*	0

Direct Uses—Total Process	166	*	*	37	Q	0
Process Heating	21	0	*	27	*	0
Process Cooling and Refrigeration	24	*	0	*	*	0
Machine Drive	116	*	*	7	Q	0
Electro-Chemical Processes	Q	--	--	--	--	--
Other Process Use	Q	0	*	Q	*	0
Direct Uses—Total Nonprocess	62	0	*	26	2	0
Facility HVAC ^f	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	Q	0	0	*	*	0

327 Nonmetallic mineral products

Total fuel consumption	213	*	17	417	3	193
Indirect Uses—Boiler Fuel	2	*	*	16	*	0
Conventional Boiler Use	2	0	0	4	*	0
CHP and/or Cogeneration Process	--	*	*	12	*	0
Direct Uses—Total Process	175	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 ^f	16	*	*	17	*	*
Facility Lighting	13	--	--	--	--	--
Other Facility Support	2	0	*	3	*	0
Onsite Transportation	Q	--	7	2	1	--
Conventional Electricity Generation	--	*	*	1	0	0
Other Nonprocess Use	*	0	*	1	*	0
End use not reported	2	0	Q	1	*	0

327120 Clay building material and refractories

Total fuel consumption	5	0	*	31	*	1
Indirect Uses—Boiler Fuel	*	0	0	*	*	0
Conventional Boiler Use	*	0	0	*	0	0
CHP and/or Cogeneration Process	--	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 ^f	*	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	*	0	0	0	*	0

327211 Flat glass

	Total fuel consumption	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	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 ^f	*	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	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
	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 ^f	*	0	0	1	*	0
Facility Lighting	*	--	--	--	--	--
Other Facility Support	*	0	0	*	*	0
Onsite Transportation	*	--	*	*	*	--
Conventional Electricity Generation	--	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	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
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 ^f	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	13	0	*	9	*	0
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
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 ^C	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	*	0	0	*	*	0

327310 Cements

Total fuel consumption	44	0	3	90	*	121
Indirect Uses—Boiler Fuel	*	0	0	*	*	0
Conventional Boiler Use	*	0	0	*	*	0
CHP and/or Cogeneration Process	--	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 ^f	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	0	0	*	0	*	0

327410 Lime

Total fuel consumption	5	0	1	26	*	56
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
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 ^f	*	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	0	0	0	0	*	0

327420 Gypsum

Total fuel consumption	7	*	*	70	*	0
Indirect Uses—Boiler Fuel	*	*	*	3	0	0
Conventional Boiler Use	*	0	0	1	0	0
CHP and/or Cogeneration Process	--	*	*	2	0	0
Direct Uses—Total Process	5	0	*	60	*	0
Process Heating	1	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 ^f	*	*	*	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	14	0	*	32	*	*
Indirect Uses—Boiler Fuel	*	0	0	*	0	0
Conventional Boiler Use	*	0	0	*	0	0
CHP and/or Cogeneration Process	--	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 ^f	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	*	0	0	0	0	0

331 Primary metals

Total fuel consumption	356	2	8	626	4	9
Indirect Uses—Boiler Fuel	2	*	*	74	1	2
Conventional Boiler Use	2	*	*	18	1	0
CHP and/or Cogeneration Process	--	*	*	56	*	2
Direct Uses—Total Process	312	0	1	502	1	7
Process Heating	84	0	*	452	1	5
Process Cooling and Refrigeration	7	0	*	3	*	0
Machine Drive	138	0	*	16	*	0
Electro-Chemical Processes	59	--	--	--	--	--
Other Process Use	24	0	*	31	*	2
Direct Uses—Total Nonprocess	42	2	5	49	2	*
Facility HVAC ^f	16	0	*	41	*	*
Facility Lighting	14	--	--	--	--	--
Other Facility Support	5	0	*	5	*	0
Onsite Transportation	1	--	5	1	2	--
Conventional Electricity Generation	--	0	*	1	*	0
Other Nonprocess Use	7	2	*	1	*	*
End use not reported	*	0	2	*	*	1

331110 Iron and steel mills and ferroalloys

Total fuel consumption	200	2	4	389	*	9
Indirect Uses—Boiler Fuel	1	*	0	45	*	2
Conventional Boiler Use	1	*	0	13	0	0
CHP and/or Cogeneration Process	--	*	0	33	*	2
Direct Uses—Total Process	177	0	*	325	*	7
Process Heating	55	0	*	293	*	5
Process Cooling and Refrigeration	4	0	0	2	*	0
Machine Drive	D	0	*	4	*	0
Electro-Chemical Processes	D	--	--	--	--	--
Other Process Use	17	0	*	27	*	2

Direct Uses—Total Nonprocess	22	2	4	19	*	*
Facility HVAC ^f	7	0	*	17	*	0
Facility Lighting	7	--	--	--	--	--
Other Facility Support	2	0	*	1	*	0
Onsite Transportation	*	--	3	1	*	--
Conventional Electricity Generation	--	0	*	0	*	0
Other Nonprocess Use	6	2	*	*	*	*
End use not reported	0	0	*	0	*	1

3312 Steel products from purchased steel

Total fuel consumption	19	0	2	33	*	0
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	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	4	0	*	7	*	0
Facility HVAC ^f	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	*	0	2	0	*	0

3313 Alumina and aluminum production and processing

Total fuel consumption	69	0	1	118	1	0
Indirect Uses—Boiler Fuel	*	0	0	14	*	0
Conventional Boiler Use	*	0	0	1	0	0
CHP and/or Cogeneration Process	--	0	0	13	*	0
Direct Uses—Total Process	62	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	7	0	1	8	1	0

Facility HVAC ^f	2	0	*	6	*	0
Facility Lighting	3	--	--	--	--	--
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	*	0	0	*	*	0

331314 Secondary smelting and alloying of aluminum

Total fuel consumption	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
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 ^f	*	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	22	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	1	*	0
Direct Uses—Total Process	18	0	*	55	*	0
Process Heating	3	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 ^f	1	0	*	4	*	0

	Facility Lighting	2	--	--	--	--	--
	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	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	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 ^f	*	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	34	0	*	43	2	0
	Indirect Uses—Boiler Fuel	*	0	*	9	1	0
	Conventional Boiler Use	*	0	*	2	1	0
	CHP and/or Cogeneration Process	--	0	*	7	*	0
	Direct Uses—Total Process	30	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 ^f	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	*	0	*	*	*	0

331410 Nonferrous metal (except aluminum) smelting and refining

Total fuel consumption	16	0	*	14	*	0
Indirect Uses—Boiler Fuel	*	0	*	7	*	0
Conventional Boiler Use	*	0	*	1	0	0
CHP and/or Cogeneration Process	--	0	*	6	*	0
Direct Uses—Total Process	15	0	*	5	*	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 ^f	1	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	34	0	*	43	1	*
Indirect Uses—Boiler Fuel	*	0	*	2	*	0
Conventional Boiler Use	*	0	0	1	*	0
CHP and/or Cogeneration Process	--	0	*	2	*	0
Direct Uses—Total Process	28	0	*	30	*	0
Process Heating	13	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 ^f	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	*	0	*	*	*	0

331511	Iron foundries					
Total fuel consumption	16	0	*	11	*	*
Indirect Uses—Boiler Fuel	*	0	*	*	*	0
Conventional Boiler Use	*	0	0	*	*	0
CHP and/or Cogeneration Process	--	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 ^f	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	*	0	*	0	*	0

331523	Nonferrous metal die-casting foundries					
Total fuel consumption	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	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 ^f	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	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
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 ^f	*	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	144	*	2	275	4	0
Indirect Uses—Boiler Fuel	1	*	0	51	*	0
Conventional Boiler Use	1	0	0	Q	*	0
CHP and/or Cogeneration Process	--	*	0	Q	*	0
Direct Uses—Total Process	100	*	*	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	39	*	2	43	3	0
Facility HVAC ^f	21	*	*	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	5	0	0	Q	*	0

333	Machinery					
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Total fuel consumption	77	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	*	4	*	0
Direct Uses—Total Process	42	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	4	0	Q	1	*	0
Direct Uses—Total Nonprocess	29	0	*	28	2	0
Facility HVAC ^c	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	5	0	*	Q	*	0

334	Computer and electronic products					
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Total fuel consumption	98	*	*	32	*	0
Indirect Uses—Boiler Fuel	1	0	*	8	*	0
Conventional Boiler Use	1	0	*	4	*	0
CHP and/or Cogeneration Process	--	0	*	4	0	0
Direct Uses—Total Process	60	*	*	8	*	0
Process Heating	6	0	*	5	*	0
Process Cooling and Refrigeration	13	0	*	*	0	0
Machine Drive	20	0	*	Q	0	0
Electro-Chemical Processes	1	--	--	--	--	--
Other Process Use	Q	*	*	1	*	0
Direct Uses—Total Nonprocess	36	0	*	16	*	0
Facility HVAC ^c	22	0	*	13	*	0
Facility Lighting	8	--	--	--	--	--
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		1	0	0	*	*	0
334413	Semiconductors and related devices						
Total fuel consumption		49	*	*	19	*	0
Indirect Uses—Boiler Fuel		*	0	*	6	*	0
Conventional Boiler Use		*	0	*	3	*	0
CHP and/or Cogeneration Process		--	0	*	2	0	0
Direct Uses—Total Process		33	*	*	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		15	0	*	9	*	0
Facility HVAC ^c		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
End use not reported		*	0	0	*	0	0
335	Electrical equip., appliances, and components						
Total fuel consumption		40	0	Q	37	*	0
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
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 ^f		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		2	0	0	Q	*	0

336	Transportation equipment					
	Total fuel consumption	162	*	1	130	3
	Indirect Uses—Boiler Fuel	1	0	*	20	*
	Conventional Boiler Use	1	0	*	10	*
	CHP and/or Cogeneration Process	--	0	*	10	*
	Direct Uses—Total Process	96	0	*	55	1
	Process Heating	12	0	*	50	*
	Process Cooling and Refrigeration	9	0	0	*	*
	Machine Drive	68	0	*	Q	*
	Electro-Chemical Processes	1	--	--	--	--
	Other Process Use	6	0	*	3	*
	Direct Uses—Total Nonprocess	60	*	1	54	2
	Facility HVAC ^f	31	*	*	50	Q
	Facility Lighting	20	--	--	--	--
	Other Facility Support	5	0	*	3	*
	Onsite Transportation	2	--	1	*	1
	Conventional Electricity Generation	--	0	*	*	*
	Other Nonprocess Use	1	0	*	1	*
	End use not reported	5	0	*	1	*
336110	Automobile and light duty motor vehicle manufacturing					
	Total fuel consumption	28	0	*	40	*
	Indirect Uses—Boiler Fuel	1	0	0	4	0
	Conventional Boiler Use	1	0	0	4	0
	CHP and/or Cogeneration Process	--	0	0	1	0
	Direct Uses—Total Process	17	0	*	25	*
	Process Heating	1	0	0	24	*
	Process Cooling and Refrigeration	2	0	0	*	0
	Machine Drive	13	0	*	*	0
	Electro-Chemical Processes	*	--	--	--	--
	Other Process Use	2	0	*	1	*
	Direct Uses—Total Nonprocess	9	0	*	11	*
	Facility HVAC ^f	6	0	0	10	*
	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	*	1	0

3364

Aerospace product and parts

Total fuel consumption	34	0	*	27	*	0
Indirect Uses—Boiler Fuel	*	0	*	9	*	0
Conventional Boiler Use	*	0	*	4	*	0
CHP and/or Cogeneration Process	--	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	10	0	*	*	*	0
Electro-Chemical Processes	*	--	--	--	--	--
Other Process Use	1	0	*	1	*	0
Direct Uses—Total Nonprocess	15	0	*	11	*	0
Facility HVAC ^f	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	*	0	0	*	*	0

336411

Aircraft

Total fuel consumption	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	*	2	0	0
Direct Uses—Total Process	4	0	*	2	*	0
Process Heating	1	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 ^f	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

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

^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 Facility heating, ventilation, and air conditioning (*facility HVAC*) excludes steam and hot water.

* Estimate less than 0.5.

D=Withheld to avoid disclosing data for individual establishments.

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

NA=Not available.

-- Estimation is not applicable.

S=Negative value.

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

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RSE Table 5.4 Relative standard errors for table 5.4

Unit: Percentage

NAICS code ^a	End use	Net demand for 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)
Total United States							
311 - 339	All manufacturing industries						
	Total fuel consumption	2.6	3.5	7.0	2.2	4.5	5.1
	Indirect Uses—Boiler Fuel	7.4	3.5	11.2	3.3	10.4	0.3
	Conventional Boiler Use	7.4	10.7	6.4	1.9	18.7	0.0
	CHP and/or Cogeneration Process	--	1.8	14.0	4.6	7.3	0.3
	Direct Uses—Total Process	2.5	13.2	17.6	2.1	4.2	9.0
	Process Heating	4.1	13.4	6.4	2.5	4.5	9.9
	Process Cooling and Refrigeration	2.9	68.9	75.5	12.2	41.5	1.7
	Machine Drive	3.2	55.2	17.6	3.7	20.1	0.3
	Electro-Chemical Processes	1.1	--	--	--	--	--
	Other Process Use	11.7	0.0	39.4	1.7	6.3	0.0
	Direct Uses—Total Nonprocess	3.9	6.7	6.2	3.9	7.3	0.6
	Facility HVAC ^f	3.8	71.5	23.3	4.8	20.0	2.3
	Facility Lighting	5.2	--	--	--	--	--
	Other Facility Support	3.3	0.0	22.2	5.7	40.5	0.0
	Onsite Transportation	14.3	--	5.9	6.0	7.1	--
	Conventional Electricity Generation	--	0.0	31.3	1.2	52.8	0.0
	Other Nonprocess Use	6.3	0.0	27.4	7.7	29.9	0.4
	End use not reported	21.9	0.0	28.0	9.8	34.9	0.1
311	Food						
	Total fuel consumption	2.9	40.5	20.2	3.5	36.4	0.0
	Indirect Uses—Boiler Fuel	6.5	51.3	28.9	2.6	40.7	0.0
	Conventional Boiler Use	6.5	3.7	10.6	3.8	54.3	0.0
	CHP and/or Cogeneration Process	--	61.3	34.5	3.4	25.1	0.0
	Direct Uses—Total Process	3.1	3.7	69.3	6.6	49.5	0.0
	Process Heating	9.9	0.0	30.0	6.2	56.8	0.0
	Process Cooling and Refrigeration	4.1	19.6	77.8	36.4	56.9	X

	Machine Drive	4.0	19.6	73.5	23.9	36.9	0.0
	Electro-Chemical Processes	5.8	--	--	--	--	--
	Other Process Use	17.1	X	0.3	21.6	54.9	X
	Direct Uses—Total Nonprocess	4.2	8.8	16.3	12.2	18.1	X
	Facility HVAC	5.7	8.8	38.9	16.6	25.8	X
	Facility Lighting	4.4	--	--	--	--	--
	Other Facility Support	5.7	X	40.4	12.3	35.1	X
	Onsite Transportation	5.5	--	13.0	12.3	21.9	--
	Conventional Electricity Generation	--	X	45.8	33.2	0.0	X
	Other Nonprocess Use	14.6	X	40.1	18.1	2.4	X
	End use not reported	19.9	X	77.3	18.3	47.4	0.0
3112	Grain and oilseed milling						
	Total fuel consumption	2.4	15.6	6.0	4.1	16.5	0.0
	Indirect Uses—Boiler Fuel	2.8	65.8	4.6	3.6	0.0	0.0
	Conventional Boiler Use	2.8	65.8	4.6	6.4	X	0.0
	CHP and/or Cogeneration Process	--	X	X	2.5	0.0	0.0
	Direct Uses—Total Process	2.4	0.0	2.7	8.8	26.4	X
	Process Heating	25.4	0.0	75.9	9.3	41.1	X
	Process Cooling and Refrigeration	1.5	X	X	0.0	X	X
	Machine Drive	2.4	X	0.4	12.8	6.7	X
	Electro-Chemical Processes	0.1	--	--	--	--	--
	Other Process Use	16.1	X	X	21.8	0.0	X
	Direct Uses—Total Nonprocess	4.8	41.7	8.0	6.2	20.5	X
	Facility HVAC	6.5	41.7	0.0	7.4	12.4	X
	Facility Lighting	3.4	--	--	--	--	--
	Other Facility Support	8.6	X	0.0	10.2	0.0	X
	Onsite Transportation	16.5	--	4.4	5.1	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	24.8	X	X	16.3	67.8	0.0
311221	Wet corn milling and starch manufacturing						
	Total fuel consumption	0.0	X	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	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 ^C	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	X	X	X	X	X	0.0

31131 Sugar manufacturing

Total fuel consumption	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	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 ^C	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	X	X	X	X	X	X

3114 Fruit and vegetable preserving and specialty foods

Total fuel consumption	3.0	0.0	7.6	3.0	11.7	X
Indirect Uses—Boiler Fuel	7.0	X	0.0	3.7	18.7	X
Conventional Boiler Use	7.0	X	0.0	10.0	26.4	X
CHP and/or Cogeneration Process	--	X	0.0	3.5	14.8	X
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	3.9	X	47.0	24.0	69.5	X
Machine Drive	3.9	X	21.9	38.8	15.2	X
Electro-Chemical Processes	38.0	--	--	--	--	--

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

3115 Dairy product manufacturing

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

3116 Animal slaughtering and processing

Total fuel consumption	4.0	0.0	5.1	5.0	25.5	X
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	--	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	4.8	X	8.4	10.1	19.6	X
	Facility HVAC ^f	5.3	X	X	6.0	26.2	X
	Facility Lighting	6.5	--	--	--	--	--
	Other Facility Support	4.6	X	0.0	18.2	39.5	X
	Onsite Transportation	9.2	--	9.4	28.1	25.9	--
	Conventional Electricity Generation	--	X	49.1	14.5	X	X
	Other Nonprocess Use	40.6	X	7.3	62.5	13.8	X
	End use not reported	19.9	X	30.3	21.8	71.7	X
312	Beverage and tobacco products						
	Total fuel consumption	17.6	X	22.2	49.8	9.8	0.0
	Indirect Uses—Boiler Fuel	34.1	X	44.0	57.1	24.8	0.0
	Conventional Boiler Use	34.1	X	5.3	10.2	14.3	X
	CHP and/or Cogeneration Process	--	X	81.4	64.2	31.0	0.0
	Direct Uses—Total Process	18.7	X	33.1	36.9	21.3	X
	Process Heating	35.6	X	2.6	39.5	33.1	X
	Process Cooling and Refrigeration	11.0	X	97.4	39.2	68.5	X
	Machine Drive	22.9	X	10.1	48.4	51.1	X
	Electro-Chemical Processes	15.5	--	--	--	--	--
	Other Process Use	15.7	X	53.1	18.8	18.1	X
	Direct Uses—Total Nonprocess	12.7	X	15.6	46.1	10.6	X
	Facility HVAC ^f	16.5	X	96.8	51.2	25.4	X
	Facility Lighting	9.8	--	--	--	--	--
	Other Facility Support	9.1	X	97.3	19.9	35.2	X
	Onsite Transportation	13.0	--	18.1	45.3	11.7	--
	Conventional Electricity Generation	--	X	57.2	0.0	41.5	X
	Other Nonprocess Use	18.9	X	12.7	9.3	64.4	X
	End use not reported	54.7	X	85.2	53.0	61.6	X
3121	Beverages						
	Total fuel consumption	18.5	X	25.0	50.9	10.9	0.0
	Indirect Uses—Boiler Fuel	35.2	X	55.2	58.8	39.5	0.0
	Conventional Boiler Use	35.2	X	8.9	11.7	14.4	X
	CHP and/or Cogeneration Process	--	X	83.8	65.2	58.1	0.0
	Direct Uses—Total Process	19.4	X	37.7	37.1	22.7	X
	Process Heating	36.8	X	2.6	39.7	33.2	X
	Process Cooling and Refrigeration	11.1	X	97.4	39.4	68.5	X
	Machine Drive	24.1	X	10.1	49.0	51.1	X
	Electro-Chemical Processes	15.7	--	--	--	--	--
	Other Process Use	16.1	X	66.7	18.8	23.2	X
	Direct Uses—Total Nonprocess	14.0	X	15.8	46.6	11.2	X

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

3122 Tobacco

Total fuel consumption	0.0	X	0.0	0.0	0.0	X
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	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 ^f	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	X	X	X	X	0.0	X

313 Textile mills

Total fuel consumption	6.4	X	78.1	10.5	6.4	42.2
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	0.0	21.6	0.0	25.8
Direct Uses—Total Process	6.7	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	7.3	X	96.6	28.6	55.1	73.3
Electro-Chemical Processes	45.6	--	--	--	--	--
Other Process Use	31.0	X	92.5	0.6	61.0	X
Direct Uses—Total Nonprocess	8.9	X	19.2	12.6	17.2	X
Facility HVAC ^f	10.8	X	X	15.6	9.0	X

	Facility Lighting	8.3	--	--	--	--	--
	Other Facility Support	8.0	X	X	9.5	X	X
	Onsite Transportation	18.7	--	2.7	1.4	28.9	--
	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	49.1	X	76.5	64.6	64.6	X
314	Textile product mills						
	Total fuel consumption	14.2	X	54.8	13.5	55.3	X
	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	41.2	97.7	X
	Direct Uses—Total Process	12.0	X	X	12.9	76.8	X
	Process Heating	26.3	X	X	11.7	82.8	X
	Process Cooling and Refrigeration	7.6	X	X	77.8	X	X
	Machine Drive	13.1	X	X	63.2	41.4	X
	Electro-Chemical Processes	4.3	--	--	--	--	--
	Other Process Use	48.1	X	X	X	X	X
	Direct Uses—Total Nonprocess	26.4	X	25.9	29.5	46.6	X
	Facility HVAC ^f	34.5	X	X	30.7	61.0	X
	Facility Lighting	15.7	--	--	--	--	--
	Other Facility Support	37.6	X	X	40.8	41.4	X
	Onsite Transportation	41.7	--	25.9	X	57.9	--
	Conventional Electricity Generation	--	X	25.9	88.5	41.4	X
	Other Nonprocess Use	X	X	X	X	X	X
	End use not reported	49.3	X	X	62.1	X	X
315	Apparel						
	Total fuel consumption	11.2	X	96.8	17.9	27.5	X
	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	25.5	52.6	X
	Direct Uses—Total Process	11.5	X	X	27.3	6.9	X
	Process Heating	24.9	X	X	33.3	X	X
	Process Cooling and Refrigeration	25.9	X	X	X	X	X
	Machine Drive	12.0	X	X	75.1	6.9	X
	Electro-Chemical Processes	X	--	--	--	--	--
	Other Process Use	X	X	X	0.0	X	X
	Direct Uses—Total Nonprocess	15.7	X	1.3	20.4	16.8	X
	Facility HVAC ^f	18.5	X	X	22.1	5.3	X
	Facility Lighting	20.2	--	--	--	--	--

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

316 Leather and allied products

Total fuel consumption	4.9	X	34.7	44.4	13.6	X
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	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	8.3	X	6.3	53.7	13.6	X
Facility HVAC	9.5	X	6.4	54.3	26.6	X
Facility Lighting	10.5	--	--	--	--	--
Other Facility Support	15.3	X	X	32.3	6.6	X
Onsite Transportation	3.6	--	X	X	7.3	--
Conventional Electricity Generation	--	X	X	X	25.6	X
Other Nonprocess Use	X	X	16.6	X	X	X
End use not reported	71.9	X	X	X	X	X

321 Wood products

Total fuel consumption	5.9	37.3	11.3	7.2	12.8	99.0
Indirect Uses—Boiler Fuel	2.9	X	27.3	4.2	29.3	X
Conventional Boiler Use	2.9	X	2.3	8.5	0.7	X
CHP and/or Cogeneration Process	--	X	71.6	4.5	33.6	X
Direct Uses—Total Process	6.8	88.5	15.2	10.1	17.0	99.0
Process Heating	47.4	59.4	26.7	10.8	17.6	99.0
Process Cooling and Refrigeration	4.5	X	40.0	69.0	96.1	X
Machine Drive	2.2	92.4	20.5	6.4	45.5	X
Electro-Chemical Processes	2.4	--	--	--	--	--
Other Process Use	36.6	X	44.0	4.3	45.7	X
Direct Uses—Total Nonprocess	4.2	1.3	14.9	8.4	17.2	X
Facility HVAC	6.3	1.3	15.4	8.8	41.4	X
Facility Lighting	3.7	--	--	--	--	--
Other Facility Support	6.0	0.0	9.2	21.1	29.2	X

	Onsite Transportation	17.4	--	5.9	43.2	18.8	--
	Conventional Electricity Generation	--	X	56.7	53.9	74.3	X
	Other Nonprocess Use	30.2	X	88.2	0.0	96.0	X
	End use not reported	14.5	X	59.9	31.5	46.3	X
321113	Sawmills						
	Total fuel consumption	1.8	38.7	4.7	7.5	9.6	X
	Indirect Uses—Boiler Fuel	2.8	X	1.5	9.9	4.1	X
	Conventional Boiler Use	2.8	X	0.7	0.5	1.0	X
	CHP and/or Cogeneration Process	--	X	16.6	14.5	6.0	X
	Direct Uses—Total Process	2.0	89.7	14.8	9.6	12.3	X
	Process Heating	6.8	71.0	0.9	9.8	13.8	X
	Process Cooling and Refrigeration	3.2	X	X	X	X	X
	Machine Drive	1.5	93.1	24.0	1.6	11.8	X
	Electro-Chemical Processes	3.5	--	--	--	--	--
	Other Process Use	46.5	X	38.7	0.0	31.3	X
	Direct Uses—Total Nonprocess	1.8	1.3	3.8	21.2	11.4	X
	Facility HVAC	2.4	1.3	4.3	22.3	21.6	X
	Facility Lighting	1.8	--	--	--	--	--
	Other Facility Support	3.0	X	0.0	3.0	11.5	X
	Onsite Transportation	5.9	--	3.9	0.0	12.7	--
	Conventional Electricity Generation	--	X	93.9	X	0.0	X
	Other Nonprocess Use	0.7	X	25.6	X	0.0	X
	End use not reported	4.5	X	72.7	0.0	58.7	X
3212	Veneer, plywood, and engineered wood product manufacturing						
	Total fuel consumption	2.6	0.0	22.1	2.0	8.1	X
	Indirect Uses—Boiler Fuel	0.6	X	2.6	3.6	1.5	X
	Conventional Boiler Use	0.6	X	42.9	17.5	0.0	X
	CHP and/or Cogeneration Process	--	X	0.0	1.7	2.9	X
	Direct Uses—Total Process	2.9	0.0	3.6	1.8	22.2	X
	Process Heating	4.0	0.0	0.0	2.0	47.3	X
	Process Cooling and Refrigeration	5.6	X	X	17.5	96.1	X
	Machine Drive	3.0	0.0	4.8	3.5	35.8	X
	Electro-Chemical Processes	5.0	--	--	--	--	--
	Other Process Use	3.4	X	63.9	4.7	0.0	X
	Direct Uses—Total Nonprocess	3.9	0.0	16.6	9.3	7.6	X
	Facility HVAC	4.1	0.0	X	9.8	16.5	X
	Facility Lighting	5.8	--	--	--	--	--
	Other Facility Support	5.8	0.0	13.3	8.9	26.8	X
	Onsite Transportation	16.6	--	16.7	35.1	7.8	--

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

321219 Reconstituted wood products

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

3219 Other wood products

Total fuel consumption	20.0	X	27.4	26.1	16.9	99.0
Indirect Uses—Boiler Fuel	15.4	X	0.0	14.0	53.7	X
Conventional Boiler Use	15.4	X	0.0	9.4	X	X
CHP and/or Cogeneration Process	--	X	X	21.1	53.7	X
Direct Uses—Total Process	23.7	X	58.8	35.6	39.3	99.0
Process Heating	73.0	X	X	37.6	50.7	99.0
Process Cooling and Refrigeration	10.9	X	41.0	95.3	X	X
Machine Drive	8.4	X	44.0	25.3	69.0	X
Electro-Chemical Processes	2.7	--	--	--	--	--
Other Process Use	26.3	X	83.5	10.4	91.5	X
Direct Uses—Total Nonprocess	11.1	X	32.4	14.1	20.8	X
Facility HVAC	15.1	X	98.3	14.6	59.9	X
Facility Lighting	10.4	--	--	--	--	--
Other Facility Support	16.2	X	X	38.0	95.8	X
Onsite Transportation	27.1	--	34.4	80.2	22.5	--
Conventional Electricity Generation	--	X	74.1	95.3	X	X

	Other Nonprocess Use	67.1	X	0.0	X	96.8	X
	End use not reported	51.7	X	0.0	81.7	54.9	X

322 Paper

	Total fuel consumption	1.3	0.9	0.4	1.4	16.6	0.9
	Indirect Uses—Boiler Fuel	1.4	1.0	0.2	1.5	0.0	0.9
	Conventional Boiler Use	1.4	0.0	0.0	4.2	0.0	0.0
	CHP and/or Cogeneration Process	--	1.3	0.2	1.6	0.0	0.9
	Direct Uses—Total Process	1.3	0.0	0.1	3.3	49.2	0.0
	Process Heating	2.9	0.0	0.0	3.0	0.2	X
	Process Cooling and Refrigeration	14.3	X	X	0.8	X	X
	Machine Drive	1.2	X	0.1	17.6	59.4	0.0
	Electro-Chemical Processes	19.5	--	--	--	--	--
	Other Process Use	8.6	X	0.0	1.5	4.6	X
	Direct Uses—Total Nonprocess	2.7	0.0	0.9	5.0	13.9	0.0
	Facility HVAC ^C	3.7	X	0.0	7.8	18.3	X
	Facility Lighting	2.4	--	--	--	--	--
	Other Facility Support	4.3	X	0.0	6.0	4.9	X
	Onsite Transportation	11.2	--	1.0	0.9	14.8	--
	Conventional Electricity Generation	--	0.0	0.0	0.0	0.0	0.0
	Other Nonprocess Use	8.3	X	0.0	3.3	60.7	X
	End use not reported	51.9	0.0	X	94.0	97.3	X

322110 Pulp mills

	Total fuel consumption	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	--	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 ^C	0.0	X	0.0	0.0	0.0	X
	Facility Lighting	0.0	--	--	--	--	--
	Other Facility Support	0.0	X	X	0.0	X	X
	Onsite Transportation	0.0	--	0.0	0.0	0.0	--
	Conventional Electricity Generation	--	X	X	0.0	X	X
	Other Nonprocess Use	X	X	0.0	X	X	X

End use not reported		X	X	X	X	X	X
322120	Paper mills						
Total fuel consumption		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		--	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 ^C		0.0	X	0.0	0.0	0.0	X
Facility Lighting		0.0	--	--	--	--	--
Other Facility Support		0.0	X	0.0	0.0	0.0	X
Onsite Transportation		0.0	--	0.0	X	0.0	--
Conventional Electricity Generation		--	0.0	0.0	0.0	0.0	X
Other Nonprocess Use		0.0	X	0.0	0.0	X	X
End use not reported		X	X	X	X	0.0	X
322130	Paperboard mills						
Total fuel consumption		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	X	0.0
CHP and/or Cogeneration Process		--	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 ^C		0.0	X	0.0	0.0	0.0	X
Facility Lighting		0.0	--	--	--	--	--
Other Facility Support		0.0	X	0.0	0.0	0.0	X
Onsite Transportation		0.0	--	0.0	0.0	0.0	--
Conventional Electricity Generation		--	X	X	0.0	0.0	0.0
Other Nonprocess Use		0.0	X	X	0.0	0.0	X
End use not reported		X	0.0	X	X	0.0	X

323	Printing and related support						
	Total fuel consumption	12.5	99.0	58.4	13.8	22.2	X
	Indirect Uses—Boiler Fuel	46.3	X	X	25.7	62.1	X
	Conventional Boiler Use	46.3	X	X	26.8	62.1	X
	CHP and/or Cogeneration Process	--	X	X	61.0	X	X
	Direct Uses—Total Process	11.6	X	77.7	19.5	69.3	X
	Process Heating	29.5	X	X	22.3	85.4	X
	Process Cooling and Refrigeration	16.1	X	X	50.7	X	X
	Machine Drive	12.2	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	16.9	99.0	65.1	16.3	21.5	X
	Facility HVAC ^f	11.8	99.0	X	18.7	94.9	X
	Facility Lighting	33.5	--	--	--	--	--
	Other Facility Support	17.7	X	X	24.1	X	X
	Onsite Transportation	24.4	--	80.7	43.2	20.3	--
	Conventional Electricity Generation	--	X	68.5	54.2	99.0	X
	Other Nonprocess Use	60.2	X	80.7	58.5	X	X
	End use not reported	65.2	X	X	97.0	97.0	X
324	Petroleum and coal products						
	Total fuel consumption	0.1	15.9	2.5	0.2	0.2	0.0
	Indirect Uses—Boiler Fuel	1.6	0.0	2.5	0.3	0.2	X
	Conventional Boiler Use	1.6	X	0.0	0.8	0.1	X
	CHP and/or Cogeneration Process	--	0.0	2.5	0.2	0.7	X
	Direct Uses—Total Process	0.1	17.0	4.7	0.3	0.2	0.0
	Process Heating	0.5	17.0	4.8	0.3	0.2	X
	Process Cooling and Refrigeration	1.5	X	X	0.9	0.0	X
	Machine Drive	0.1	X	3.4	2.5	0.3	X
	Electro-Chemical Processes	0.2	--	--	--	--	--
	Other Process Use	3.7	X	36.5	0.1	0.0	0.0
	Direct Uses—Total Nonprocess	0.3	0.0	1.5	2.2	2.0	X
	Facility HVAC ^f	0.3	X	24.1	2.5	3.6	X
	Facility Lighting	0.3	--	--	--	--	--
	Other Facility Support	0.6	X	68.3	1.3	16.0	X
	Onsite Transportation	3.2	--	1.7	0.0	2.7	--
	Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
	Other Nonprocess Use	5.8	0.0	1.8	8.0	0.1	X
	End use not reported	2.4	0.0	3.1	0.1	0.3	X

324110	Petroleum refineries						
	Total fuel consumption	0.0	0.0	0.0	0.0	0.0	X
	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	--	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 ^f	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	X	0.0	0.0	0.0	0.0	X
324121	Asphalt paving mixture and block						
	Total fuel consumption	3.6	17.7	4.7	4.1	6.1	X
	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	2.6	14.1	55.3	X
	Direct Uses—Total Process	4.2	17.7	8.1	4.0	6.3	X
	Process Heating	7.0	17.7	6.1	5.0	10.4	X
	Process Cooling and Refrigeration	72.1	X	X	82.4	X	X
	Machine Drive	2.3	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	3.5	0.0	3.1	41.7	19.5	X
	Facility HVAC ^f	4.3	X	30.8	11.3	14.7	X
	Facility Lighting	3.5	--	--	--	--	--
	Other Facility Support	5.4	X	77.3	12.8	80.8	X
	Onsite Transportation	2.2	--	3.9	X	6.4	--
	Conventional Electricity Generation	--	X	0.0	X	X	X
	Other Nonprocess Use	27.0	0.0	2.6	68.7	X	X
	End use not reported	3.3	X	27.0	0.1	59.2	X
324122	Asphalt shingle and coating materials						

Total fuel consumption	1.1	X	0.0	0.6	2.3	X
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	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	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	X	X	X	X	X	X

324191 Petroleum lubricating oil and grease manufacturing

Total fuel consumption	1.8	X	1.3	12.5	9.3	X
Indirect Uses—Boiler Fuel	14.1	X	0.0	15.3	37.0	X
Conventional Boiler Use	14.1	X	X	43.8	X	X
CHP and/or Cogeneration Process	--	X	0.0	0.7	37.0	X
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	3.7	X	1.2	6.6	8.3	X
Facility HVAC	3.0	X	0.0	10.1	50.3	X
Facility Lighting	3.6	--	--	--	--	--
Other Facility Support	9.6	X	0.0	1.1	41.3	X
Onsite Transportation	8.7	--	1.5	0.0	8.8	--
Conventional Electricity Generation	--	X	0.0	X	X	X
Other Nonprocess Use	0.0	X	0.0	21.3	X	X
End use not reported	0.0	X	X	X	X	X

324199 All other petroleum and coal products manufacturing

Total fuel consumption	0.0	X	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	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	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	X	X	X	X	X

325 Chemicals

Total fuel consumption	2.4	0.0	10.1	2.9	4.9	0.1
Indirect Uses—Boiler Fuel	6.0	0.0	3.6	3.7	0.1	0.0
Conventional Boiler Use	6.0	0.0	25.5	2.7	0.1	0.0
CHP and/or Cogeneration Process	--	0.0	0.1	5.4	0.1	0.0
Direct Uses—Total Process	2.2	X	36.8	3.6	1.3	0.0
Process Heating	8.2	X	5.1	4.9	0.7	0.0
Process Cooling and Refrigeration	2.1	X	0.0	14.3	2.2	0.0
Machine Drive	3.3	X	62.3	3.4	10.3	0.0
Electro-Chemical Processes	0.4	--	--	--	--	--
Other Process Use	5.9	X	3.6	1.8	4.0	0.0
Direct Uses—Total Nonprocess	3.4	X	4.1	10.7	31.8	0.2
Facility HVAC	3.9	X	3.6	12.8	45.3	0.0
Facility Lighting	3.4	--	--	--	--	--
Other Facility Support	5.6	X	15.1	13.3	7.7	0.0
Onsite Transportation	8.4	--	5.2	13.8	36.4	--
Conventional Electricity Generation	--	X	9.3	0.1	18.5	0.0
Other Nonprocess Use	28.9	X	2.1	45.0	8.0	96.1
End use not reported	45.9	X	4.4	9.9	17.7	0.0

325110 Petrochemicals

Total fuel consumption	0.0	X	0.0	0.0	0.0	X
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	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	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	X	X	X	X	0.0	X

325120 Industrial gases

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

325180 Other basic inorganic chemical manufacturing

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

325199 All other basic organic chemical manufacturing

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

325211 Plastics materials and resins

Total fuel consumption	2.1	X	4.0	1.3	3.6	X
Indirect Uses—Boiler Fuel	14.5	X	0.0	0.8	0.0	X
Conventional Boiler Use	14.5	X	0.0	2.7	0.0	X

CHP and/or Cogeneration Process	--	X	0.0	0.9	0.0	X
Direct Uses—Total Process	1.9	X	16.6	3.9	0.7	X
Process Heating	7.8	X	61.3	3.5	29.8	X
Process Cooling and Refrigeration	8.3	X	0.0	4.6	27.0	X
Machine Drive	2.4	X	6.9	9.8	54.0	X
Electro-Chemical Processes	1.7	--	--	--	--	--
Other Process Use	21.5	X	77.6	27.3	0.0	X
Direct Uses—Total Nonprocess	4.9	X	7.0	14.6	35.4	X
Facility HVAC ^f	5.6	X	X	10.8	70.3	X
Facility Lighting	4.7	--	--	--	--	--
Other Facility Support	10.4	X	0.0	3.8	6.3	X
Onsite Transportation	13.5	--	6.9	0.0	34.6	--
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	27.5	X	X	53.1	88.0	X

325212 Synthetic rubber

Total fuel consumption	0.4	X	0.0	0.1	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	0.0	X	0.0
Direct Uses—Total Process	0.3	X	0.0	0.0	0.0	0.0
Process Heating	1.6	X	X	0.0	0.0	0.0
Process Cooling and Refrigeration	0.3	X	0.0	0.0	0.0	0.0
Machine Drive	0.2	X	0.0	0.0	0.0	0.0
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	X
Direct Uses—Total Nonprocess	1.2	X	0.0	4.5	0.0	0.0
Facility HVAC ^f	0.9	X	X	7.7	X	0.0
Facility Lighting	1.0	--	--	--	--	--
Other Facility Support	3.4	X	X	0.0	X	0.0
Onsite Transportation	0.0	--	0.0	X	0.0	--
Conventional Electricity Generation	--	X	0.0	X	0.0	0.0
Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
End use not reported	X	X	X	X	0.0	X

325220 Artificial and synthetic fibers and filaments

Total fuel consumption	2.0	X	0.0	0.1	0.0	X
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	0.0	0.0	0.0	X

	Direct Uses—Total Process	2.6	X	0.0	0.8	0.0	X
	Process Heating	0.0	X	X	0.0	0.0	X
	Process Cooling and Refrigeration	0.0	X	X	X	X	X
	Machine Drive	3.7	X	0.0	43.3	X	X
	Electro-Chemical Processes	0.0	--	--	--	--	--
	Other Process Use	0.0	X	X	0.0	0.0	X
	Direct Uses—Total Nonprocess	0.0	X	0.0	0.0	0.0	X
	Facility HVAC ^f	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	X	X	X	X	X	X
325311	Nitrogenous fertilizers						
	Total fuel consumption	0.0	X	0.0	0.0	0.0	X
	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	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 ^f	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	X	0.0	0.0	0.0	X
325312	Phosphatic fertilizers						
	Total fuel consumption	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	X
	Conventional Boiler Use	0.0	0.0	X	0.0	X	X
	CHP and/or Cogeneration Process	--	X	0.0	0.0	0.0	X
	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 ^f	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	X	0.0	X	X	X

3254 Pharmaceuticals and medicines

Total fuel consumption	5.0	X	1.5	14.1	4.5	96.1
Indirect Uses—Boiler Fuel	10.3	X	0.0	6.2	0.4	X
Conventional Boiler Use	10.3	X	0.0	7.9	0.0	X
CHP and/or Cogeneration Process	--	X	0.0	10.7	0.7	X
Direct Uses—Total Process	3.6	X	2.1	37.4	1.4	X
Process Heating	6.7	X	0.0	32.0	0.1	X
Process Cooling and Refrigeration	3.0	X	0.0	53.1	0.0	X
Machine Drive	4.4	X	14.1	51.5	12.2	X
Electro-Chemical Processes	49.1	--	--	--	--	--
Other Process Use	9.5	X	4.0	8.8	0.0	X
Direct Uses—Total Nonprocess	7.3	X	2.4	24.4	11.9	96.1
Facility HVAC ^f	6.1	X	0.2	24.1	0.1	X
Facility Lighting	10.1	--	--	--	--	--
Other Facility Support	15.5	X	0.0	31.8	0.0	X
Onsite Transportation	8.9	--	12.6	32.1	52.7	--
Conventional Electricity Generation	--	X	4.3	8.1	0.0	X
Other Nonprocess Use	66.5	X	9.3	46.7	67.1	96.1
End use not reported	25.6	X	X	82.7	31.9	X

325412 Pharmaceutical preparation

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

	Process Cooling and Refrigeration	2.5	X	X	59.9	X	X
	Machine Drive	5.6	X	14.2	64.0	57.4	X
	Electro-Chemical Processes	1.9	--	--	--	--	--
	Other Process Use	2.8	X	0.0	0.1	0.0	X
	Direct Uses—Total Nonprocess	8.3	X	2.2	42.5	12.5	X
	Facility HVAC	4.7	X	0.0	42.0	0.0	X
	Facility Lighting	6.7	--	--	--	--	--
	Other Facility Support	5.1	X	0.0	47.1	0.0	X
	Onsite Transportation	12.8	--	19.7	0.0	58.2	--
	Conventional Electricity Generation	--	X	3.5	1.6	X	X
	Other Nonprocess Use	72.7	X	2.9	57.9	67.7	X
	End use not reported	37.4	X	X	88.4	0.0	X
325992	Photographic film, paper, plate, chemical, and copy toner manufacturing						
	Total fuel consumption	0.0	X	0.0	0.0	0.0	X
	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	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	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	X	X	X	0.0	X
326	Plastics and rubber products						
	Total fuel consumption	18.4	90.7	44.7	16.0	34.1	X
	Indirect Uses—Boiler Fuel	49.1	92.1	44.2	25.1	69.2	X
	Conventional Boiler Use	49.1	92.1	62.1	42.9	X	X
	CHP and/or Cogeneration Process	--	X	0.0	29.9	69.2	X
	Direct Uses—Total Process	19.9	99.0	72.9	17.8	68.2	X
	Process Heating	19.6	X	18.7	20.8	76.2	X
	Process Cooling and Refrigeration	19.6	99.0	X	57.7	93.5	X

Machine Drive	22.9	99.0	99.0	41.8	91.1	X
Electro-Chemical Processes	54.0	--	--	--	--	--
Other Process Use	62.7	X	77.4	63.6	76.6	X
Direct Uses—Total Nonprocess	18.0	X	47.4	26.4	29.6	X
Facility HVAC	17.7	X	80.0	26.0	62.8	X
Facility Lighting	27.7	--	--	--	--	--
Other Facility Support	17.6	X	84.9	40.9	68.0	X
Onsite Transportation	40.1	--	56.5	84.9	30.0	--
Conventional Electricity Generation	--	X	73.6	97.3	91.7	X
Other Nonprocess Use	59.3	X	95.4	X	96.5	X
End use not reported	51.2	X	X	60.4	66.3	X

327 Nonmetallic mineral products

Total fuel consumption	26.3	0.0	23.7	4.9	19.6	10.5
Indirect Uses—Boiler Fuel	23.9	0.0	80.1	12.5	70.6	X
Conventional Boiler Use	23.9	X	X	13.6	96.1	X
CHP and/or Cogeneration Process	--	0.0	80.1	15.8	72.8	X
Direct Uses—Total Process	24.1	X	39.4	5.2	34.0	10.5
Process Heating	4.4	X	3.1	5.2	43.0	10.6
Process Cooling and Refrigeration	26.2	X	X	11.6	X	X
Machine Drive	34.9	X	39.8	12.4	39.3	0.0
Electro-Chemical Processes	32.7	--	--	--	--	--
Other Process Use	1.0	X	71.5	28.0	88.9	X
Direct Uses—Total Nonprocess	40.2	0.0	22.4	6.3	24.4	0.0
Facility HVAC	35.8	0.0	62.1	8.3	35.8	0.0
Facility Lighting	43.7	--	--	--	--	--
Other Facility Support	6.4	X	73.8	3.4	56.1	X
Onsite Transportation	72.7	--	23.2	10.4	26.6	--
Conventional Electricity Generation	--	0.0	83.6	0.1	X	X
Other Nonprocess Use	4.6	X	74.0	7.6	0.3	X
End use not reported	45.1	X	87.0	19.8	47.2	X

327120 Clay building material and refractories

Total fuel consumption	2.5	X	1.9	3.9	1.8	0.0
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	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 ^C	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	14.2	X	X	X	61.8	X

327211 Flat glass

Total fuel consumption	1.2	X	0.0	0.1	0.0	X
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	0.0	X	X
Direct Uses—Total Process	1.1	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	11.2	X	0.0	1.1	X	X
Direct Uses—Total Nonprocess	2.1	X	0.0	0.4	0.0	X
Facility HVAC ^C	1.9	X	X	0.6	0.0	X
Facility Lighting	3.1	--	--	--	--	--
Other Facility Support	3.3	X	X	0.0	0.0	X
Onsite Transportation	1.3	--	0.0	0.0	0.0	--
Conventional Electricity Generation	--	X	0.0	0.0	X	X
Other Nonprocess Use	0.0	X	X	0.0	X	X
End use not reported	X	X	X	0.0	0.0	X

327212 Other pressed and blown glass and glassware

Total fuel consumption	0.7	X	0.0	0.5	36.6	X
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	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 ^C	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	X	X	X	0.0	X	X

327213 Glass containers

Total fuel consumption	0.1	X	0.0	0.1	0.0	X
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	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 ^C	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	X	X	X	X	X	X

327215 Glass products from purchased glass

Total fuel consumption	2.1	X	43.7	1.7	28.1	X
Indirect Uses—Boiler Fuel	4.5	X	X	10.4	X	X
Conventional Boiler Use	4.5	X	X	22.0	X	X
CHP and/or Cogeneration Process	--	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	4.5	X	X	1.7	X	X
Machine Drive	4.6	X	X	3.6	0.0	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.9	X	X	1.2	0.0	X

	Direct Uses—Total Nonprocess	2.6	X	43.7	4.2	8.1	X
	Facility HVAC ^f	2.5	X	75.4	4.9	16.6	X
	Facility Lighting	3.3	--	--	--	--	--
	Other Facility Support	3.8	X	0.0	8.2	X	X
	Onsite Transportation	2.5	--	5.5	2.8	8.1	--
	Conventional Electricity Generation	--	X	X	14.3	X	X
	Other Nonprocess Use	3.1	X	0.0	2.6	0.0	X
	End use not reported	24.9	X	X	35.1	57.0	X
327310	Cements						
	Total fuel consumption	6.1	X	3.1	2.1	0.5	13.8
	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	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 ^f	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	X	X	0.0	X	0.0	X
327410	Lime						
	Total fuel consumption	0.0	X	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
	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	

Facility HVAC ^f	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	X	X	X	X	0.0	X

327420 Gypsum

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

327993 Mineral wool

Total fuel consumption	13.0	X	0.0	16.9	67.3	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	0.0	X	X
Direct Uses—Total Process	11.7	X	0.0	18.1	45.1	0.0
Process Heating	22.6	X	0.0	18.6	0.0	0.0
Process Cooling and Refrigeration	0.2	X	X	0.0	X	X
Machine Drive	4.1	X	0.0	0.0	47.1	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	0.0	X	0.0	0.0	X	X
Direct Uses—Total Nonprocess	20.3	X	0.0	4.5	68.7	X
Facility HVAC ^f	19.3	X	0.0	4.8	90.7	X

	Facility Lighting	20.4	--	--	--	--	--
	Other Facility Support	28.3	X	X	3.3	0.0	X
	Onsite Transportation	34.2	--	0.0	0.0	67.0	--
	Conventional Electricity Generation	--	X	0.0	X	X	X
	Other Nonprocess Use	0.0	X	0.0	X	0.0	X
	End use not reported	0.0	X	X	X	X	X
331	Primary metals						
	Total fuel consumption	0.2	0.0	11.7	0.2	4.1	0.1
	Indirect Uses—Boiler Fuel	1.1	0.0	1.0	0.3	0.1	0.0
	Conventional Boiler Use	1.1	0.0	0.0	0.8	0.1	X
	CHP and/or Cogeneration Process	--	0.0	1.0	0.4	0.3	0.0
	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	0.5	0.0	0.3	0.8	7.7	1.5
	Facility HVAC ^f	0.7	X	0.4	0.6	3.3	66.3
	Facility Lighting	0.8	--	--	--	--	--
	Other Facility Support	0.5	X	0.0	1.5	13.1	X
	Onsite Transportation	0.9	--	0.3	1.9	7.5	--
	Conventional Electricity Generation	--	X	0.4	18.0	0.0	X
	Other Nonprocess Use	0.3	0.0	6.8	20.4	62.2	0.0
	End use not reported	20.7	X	43.0	32.1	25.3	0.0
33110	Iron and steel mills and ferroalloys						
	Total fuel consumption	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	--	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 ^f	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	X	X	0.0	X	0.0	0.0

3312 Steel products from purchased steel

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

3313 Alumina and aluminum production and processing

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

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

331314 Secondary smelting and alloying of aluminum

Total fuel consumption	0.0	X	0.0	0.0	0.0	X
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	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	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	X	X	X	X	X	X

331315 Aluminum sheet, plate and foils

Total fuel consumption	0.4	X	0.0	0.1	0.5	X
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	0.0	0.0	X
Direct Uses—Total Process	0.4	X	0.0	0.1	0.0	X
Process Heating	1.9	X	X	0.1	0.0	X
Process Cooling and Refrigeration	0.0	X	X	0.0	X	X
Machine Drive	0.2	X	0.0	0.0	X	X
Electro-Chemical Processes	X	--	--	--	--	--
Other Process Use	0.0	X	X	0.0	0.0	X
Direct Uses—Total Nonprocess	0.6	X	0.0	0.1	0.7	X
Facility HVAC	0.6	X	0.0	0.1	0.0	X
Facility Lighting	0.9	--	--	--	--	--
Other Facility Support	0.2	X	X	0.0	X	X
Onsite Transportation	0.0	--	0.0	0.0	0.7	--

	Conventional Electricity Generation	--	X	X	0.0	X	X
	Other Nonprocess Use	0.0	X	0.0	0.0	0.0	X
	End use not reported	0.0	X	X	0.0	X	X
331318	Other aluminum rolling, drawing and extruding						
	Total fuel consumption	1.4	X	0.0	0.7	26.7	X
	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	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	1.9	X	0.0	D	33.0	X
	Facility HVAC	1.9	X	X	D	0.0	X
	Facility Lighting	2.2	--	--	--	--	--
	Other Facility Support	2.8	X	X	0.3	0.0	X
	Onsite Transportation	5.1	--	0.0	0.3	33.2	--
	Conventional Electricity Generation	--	X	X	X	X	X
	Other Nonprocess Use	0.0	X	X	X	0.0	X
	End use not reported	68.6	X	X	X	0.0	X
3314	Nonferrous metal (except aluminum) production and processing						
	Total fuel consumption	1.2	X	3.8	1.2	5.9	X
	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	0.0	1.6	0.0	X
	Direct Uses—Total Process	1.0	X	28.6	1.6	1.3	X
	Process Heating	1.6	X	0.0	1.8	1.4	X
	Process Cooling and Refrigeration	0.9	X	91.3	47.1	X	X
	Machine Drive	2.0	X	63.6	2.4	9.1	X
	Electro-Chemical Processes	1.4	--	--	--	--	--
	Other Process Use	0.7	X	0.0	2.7	0.0	X
	Direct Uses—Total Nonprocess	2.6	X	2.9	2.7	19.7	X
	Facility HVAC	2.9	X	0.0	2.1	6.5	X
	Facility Lighting	3.2	--	--	--	--	--
	Other Facility Support	2.6	X	X	5.7	17.2	X
	Onsite Transportation	6.8	--	2.7	3.3	5.8	--
	Conventional Electricity Generation	--	X	0.5	47.6	0.0	X

Other Nonprocess Use	19.3	X	75.0	31.2	65.2	X
End use not reported	10.0	X	0.0	47.6	0.0	X

331410 Nonferrous metal (except aluminum) smelting and refining

Total fuel consumption	0.1	X	0.0	0.4	8.1	X
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	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	1.9	X	0.0	3.0	14.9	X
Facility HVAC ^C	1.8	X	X	3.3	0.0	X
Facility Lighting	1.2	--	--	--	--	--
Other Facility Support	3.8	X	X	1.7	0.0	X
Onsite Transportation	0.0	--	0.0	3.4	16.3	--
Conventional Electricity Generation	--	X	0.0	0.0	0.0	X
Other Nonprocess Use	X	X	X	X	X	X
End use not reported	44.5	X	X	47.6	0.0	X

3315 Foundries

Total fuel consumption	1.3	X	2.8	1.3	4.9	66.3
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	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	2.8	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 ^C	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		10.5	X	0.0	69.8	43.6	X
331511	Iron foundries						
Total fuel consumption		2.2	X	1.8	1.2	1.9	66.3
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	65.1	2.4	47.5	X
Direct Uses—Total Process		2.3	X	0.0	1.3	0.1	X
Process Heating		4.3	X	X	1.6	0.3	X
Process Cooling and Refrigeration		4.8	X	X	X	0.0	X
Machine Drive		1.4	X	0.0	2.8	0.8	X
Electro-Chemical Processes		51.2	--	--	--	--	--
Other Process Use		6.8	X	0.0	14.2	0.1	X
Direct Uses—Total Nonprocess		3.2	X	1.5	2.0	2.5	66.3
Facility HVAC ^C		4.0	X	28.9	2.0	1.0	66.3
Facility Lighting		4.5	--	--	--	--	--
Other Facility Support		2.7	X	0.0	4.8	53.5	X
Onsite Transportation		1.8	--	1.5	27.0	4.1	--
Conventional Electricity Generation		--	X	0.0	0.0	0.0	X
Other Nonprocess Use		0.0	X	X	0.0	70.3	X
End use not reported		0.0	X	0.0	X	0.0	X
331523	Nonferrous metal die-casting foundries						
Total fuel consumption		2.3	X	6.3	3.1	13.9	X
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	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 ^C		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		X	X	X	X	1.0	X

331524	Aluminum foundries, except die-casting					

333

Machinery

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

334

Computer and electronic products

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

334413

Semiconductors and related devices

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

335 Electrical equip., appliances, and components

Total fuel consumption	10.1	X	50.7	14.4	24.8	X
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	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	19.4	X	19.8	87.7	X	X
Machine Drive	15.2	X	27.7	32.5	96.3	X
Electro-Chemical Processes	13.7	--	--	--	--	--
Other Process Use	39.3	X	70.9	73.9	X	X
Direct Uses—Total Nonprocess	13.6	X	53.0	21.3	26.8	X
Facility HVAC ^f	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	39.7	X	X	58.6	79.6	X

336 Transportation equipment

Total fuel consumption	6.4	96.5	6.5	6.7	26.7	X
Indirect Uses—Boiler Fuel	8.1	X	0.0	7.3	30.0	X
Conventional Boiler Use	8.1	X	0.0	7.7	2.3	X
CHP and/or Cogeneration Process	--	X	0.0	12.8	63.6	X
Direct Uses—Total Process	7.5	X	4.5	8.7	44.2	X
Process Heating	12.0	X	0.0	9.1	58.4	X
Process Cooling and Refrigeration	8.6	X	X	4.7	0.0	X
Machine Drive	9.2	X	6.5	60.4	69.4	X
Electro-Chemical Processes	36.8	--	--	--	--	--
Other Process Use	14.7	X	1.7	15.7	24.3	X
Direct Uses—Total Nonprocess	7.5	96.5	9.9	9.9	28.2	X
Facility HVAC	8.7	96.5	57.9	10.2	59.1	X
Facility Lighting	8.3	--	--	--	--	--
Other Facility Support	12.4	X	0.0	22.7	86.9	X
Onsite Transportation	12.3	--	10.9	40.0	24.2	--
Conventional Electricity Generation	--	X	33.1	4.1	12.4	X
Other Nonprocess Use	11.6	X	3.8	24.2	84.4	X
End use not reported	44.5	X	0.0	2.1	94.8	X

336110 Automobile and light duty motor vehicle manufacturing

Total fuel consumption	1.2	X	2.0	0.5	0.3	X
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	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	0.6	X	X	0.0	X	X
Machine Drive	1.0	X	0.0	0.0	X	X
Electro-Chemical Processes	0.0	--	--	--	--	--
Other Process Use	1.7	X	0.0	0.0	0.0	X
Direct Uses—Total Nonprocess	2.1	X	2.2	0.5	0.3	X
Facility HVAC	2.4	X	X	0.5	0.0	X
Facility Lighting	1.0	--	--	--	--	--
Other Facility Support	2.1	X	0.0	0.6	X	X
Onsite Transportation	5.9	--	0.0	0.0	0.3	--
Conventional Electricity Generation	--	X	54.9	0.0	X	X
Other Nonprocess Use	0.0	X	0.0	X	0.0	X
End use not reported	0.0	X	0.0	0.0	X	X

3364 Aerospace product and parts

Total fuel consumption	5.2	X	2.9	3.1	14.5	X
Indirect Uses—Boiler Fuel	6.9	X	0.0	1.0	30.0	X
Conventional Boiler Use	6.9	X	0.0	2.1	2.3	X
CHP and/or Cogeneration Process	--	X	0.0	0.8	63.6	X
Direct Uses—Total Process	6.4	X	15.5	6.5	39.7	X
Process Heating	6.5	X	0.0	7.6	42.8	X
Process Cooling and Refrigeration	6.5	X	X	11.4	0.0	X
Machine Drive	9.2	X	16.3	10.8	46.7	X
Electro-Chemical Processes	13.5	--	--	--	--	--
Other Process Use	2.2	X	15.5	7.4	19.9	X
Direct Uses—Total Nonprocess	5.1	X	4.0	5.3	7.8	X
Facility HVAC	5.9	X	0.0	5.6	8.3	X
Facility Lighting	5.0	--	--	--	--	--
Other Facility Support	3.8	X	0.0	5.0	28.3	X
Onsite Transportation	6.3	--	5.2	1.3	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	34.5	X	X	15.7	64.3	X

336411 Aircraft

Total fuel consumption	5.4	X	2.5	4.3	26.3	X
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	0.0	0.0	X	X
Direct Uses—Total Process	9.0	X	0.0	11.6	56.7	X
Process Heating	12.1	X	0.0	12.2	56.9	X
Process Cooling and Refrigeration	14.1	X	X	0.0	0.0	X
Machine Drive	11.9	X	0.0	0.0	0.0	X
Electro-Chemical Processes	23.7	--	--	--	--	--
Other Process Use	6.0	X	X	0.0	X	X
Direct Uses—Total Nonprocess	3.5	X	3.2	5.2	16.7	X
Facility HVAC	4.5	X	X	5.4	51.9	X
Facility Lighting	3.3	--	--	--	--	--
Other Facility Support	4.1	X	0.0	6.5	71.9	X
Onsite Transportation	1.5	--	3.4	0.0	17.2	--
Conventional Electricity Generation	--	X	3.9	0.0	0.0	X
Other Nonprocess Use	0.0	X	5.9	0.0	0.0	X
End use not reported	76.9	X	X	X	69.5	X

337 Furniture and related products

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

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

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

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

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

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

^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 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).