

Table 2.3 Manufacturing Energy Consumption for Heat, Power, and Electricity Generation by End Use, 2002

End-Use Category	Net Electricity ¹	Residual Fuel Oil	Distillate Fuel Oil	LPG ² and NGL ³	Natural Gas	Coal ⁴	Total ⁵
	Million Kilowatthours	Million Barrels			Billion Cubic Feet	Million Short Tons	
Indirect End Use (Boiler Fuel)	3,540	20	6	2	2,105	35	--
Conventional Boiler Use	2,496	12	4	2	1,271	11	--
CHP ⁶ and/or Cogeneration Process	1,043	8	2	(s)	834	23	--
Direct End Use							
All Process Uses	650,100	10	7	16	2,878	17	--
Process Heating	100,541	9	4	15	2,670	17	--
Process Cooling and Refrigeration	56,723	(s)	(s)	(s)	44	(s)	--
Machine Drive	417,998	(s)	3	1	106	(s)	--
Electrochemical Processes	71,045	--	--	--	--	--	--
Other Process Uses	3,793	(s)	(s)	(s)	58	(s)	--
All Non-Process Uses	150,530	1	9	6	500	1	--
Facility Heating, Ventilation, and Air Conditioning ⁷ ...	76,840	1	1	1	406	(s)	--
Facility Lighting	57,460	--	--	--	--	--	--
Other Facility Support	14,087	(s)	(s)	(s)	29	(s)	--
Onsite Transportation	1,212	--	6	5	2	--	--
Conventional Electricity Generation	--	(s)	Q	(s)	54	1	--
Other Non-Process Use	931	(s)	Q	(s)	10	0	--
End Use Not Reported	28,087	3	2	2	157	(s)	--
Total	832,257	33	24	26	5,641	53	--
					Trillion Btu		
Indirect End Use (Boiler Fuel)	12	127	35	8	2,162	776	3,120
Conventional Boiler Use	9	76	25	8	1,306	255	1,679
CHP ⁶ and/or Cogeneration Process	4	51	10	(s)	857	521	1,443
Direct End Use							
All Process Uses	2,218	60	43	64	2,956	381	5,722
Process Heating	343	58	24	60	2,742	368	3,595
Process Cooling and Refrigeration	194	(s)	2	(s)	45	(s)	241
Machine Drive	1,426	2	16	4	109	5	1,562
Electrochemical Processes	242	--	--	--	--	--	242
Other Process Uses	13	(s)	1	(s)	60	7	81
All Non-Process Uses	514	4	50	24	513	19	1,124
Facility Heating, Ventilation, and Air Conditioning ⁷ ...	262	3	5	5	417	5	697
Facility Lighting	196	--	--	--	--	--	196
Other Facility Support	48	(s)	1	(s)	30	(s)	79
Onsite Transportation	4	--	35	18	2	--	59
Conventional Electricity Generation	--	1	Q	(s)	55	14	70
Other Non-Process Use	3	(s)	Q	(s)	10	0	13
End Use Not Reported	96	17	12	6	162	6	299
Total	2,840	208	141	103	5,794	1,182	10,268

¹ "Net Electricity" is the sum of purchases, transfers in, and onsite generation from noncombustible renewable energy sources, minus quantities sold and transferred out; it excludes onsite generation from combustible fuels.

² Liquefied petroleum gases.

³ Natural gas liquids.

⁴ Excludes coal coke and breeze.

⁵ Total of listed energy sources. Excludes inputs of unallocated energy sources (6,006 trillion Btu).

⁶ Combined-heat-and-power plants.

⁷ Excludes steam and hot water.

-- = Not applicable. (s)=Estimate less than 0.5. Q=Withheld because relative standard error is greater than 50 percent.

Notes: • Data are estimates for the total consumption 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. • Allocations to end uses are made on the basis of reasonable approximations by respondents. • Totals may not equal sum of components due to independent rounding, the presence of estimates that round to zero, and the presence of estimates that are withheld because the relative standard error is greater than 50 percent.

Web Page: For related information, see <http://www.eia.doe.gov/emeu/mecs>.

Source: Energy Information Administration, Form EIA-846, "2002 Manufacturing Energy Consumption Survey."