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

5 5	•			•		•	
	Net Electricity 1	Residual Fuel Oil	Distillate Fuel Oil	LPG ² and NGL ³	Natural Gas	Coal ⁴	
End-Use Category	Million Kilowatthours		Million Barrels		Billion Cubic Feet	Million Short Tons	Total 5
ndirect 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		9	4	15	2.670	17	
Process Cooling and Refrigeration		(s)	(s)	(s)	44	(s)	
Machine Drive	417,998	(s)	3	1	106	(s)	
Electrochemical Processes	71,045	(5)				(5)	
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		1	1	1	406	(s)	
Facility Lighting	57,460						
Other Facility Support	14.087	(s)	(s)	(s)	29	(s)	
Onsite Transportation	1,212		`6´	`ś	2		
Conventional Electricity Generation		(s)	Q	(s)	54	1	
Other Non-Process Use		(s)	Õ	(s)	10	o l	
Other Non-Process Ose	931	(5)	Q	(5)	10	0	
End Use Not Reported	28,087	3	2	2	157	(s)	
otal	832,257	33	24	26	5,641	53	
	Trillion Btu						
ndirect 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
CHF - and/or cogeneration Flocess	4	31	10	(5)	037	321	1,443
Direct End Use All Process Uses	2.240	60	43	64	2.956	381	E 700
							5,722
Process Heating		58	24	60	2,742	368	3,595
Process Cooling and Refrigeration		(s)	2	(s)	45	(s)	241
Machine Drive		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		4	50	24	513	19	1,124
Facility Heating, Ventilation, and Air Conditioning 7		3	5	5	417	5	697
Facility Lighting					417		196
			1		30		79
Other Facility Support		(s)	•	(s)		(s)	
Onsite Transportation			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

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.

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."

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.