

Table 1.8 Industrial biomass energy consumption and electricity net generation by industry and energy source, 2009

Biomass Energy Consumption (Trillion Btu)

Industry	Energy Source	Total	Net Generation (Million Kilowatthours)		
			For Electricity	For Useful Thermal Output	
Total	Total	1,982.521	164.189	1,818.332	
Agriculture, Forestry and Mining	Total	15.508	1.258	14.250	
	Agricultural Byproducts/Crops	15.340	1.089	14.250	
	Other Biomass Solids	0.169	0.169	-	
Manufacturing Food and Kindred Products	Total	1,847.485	162.932	1,684.553	
	Agricultural Byproducts/Crops	15.070	0.184	14.886	
	Other Biomass Gases	0.207	0.060	0.147	
	Other Biomass Liquids	0.071	0.071	-	
	Sludge Waste	0.800	0.175	0.625	
	Wood/Wood Waste Solids	6.753	0.289	6.465	
	Lumber	Total	210.715	10.218	200.496
	Sludge Waste	0.030	0.002	0.027	
Paper and Allied Products	Wood/Wood Waste Solids	210.685	10.216	200.469	
	Total	984.914	151.415	833.499	
	Agricultural Byproducts/Crops	1.316	0.049	1.267	
	Black Liquor	686.588	101.040	585.548	
	Other Biomass Gases	0.176	0.014	0.162	
	Other Biomass Liquids	0.128	0.018	0.110	
	Other Biomass Solids	9.419	1.532	7.887	
	Sludge Waste	3.459	0.689	2.770	
	Wood/Wood Waste Liquids	2.601	0.387	2.215	
	Wood/Wood Waste Solids	281.226	47.687	233.540	
Chemicals and Allied Products	Total	2.810	0.100	2.710	
	Other Biomass Liquids	0.022	0.001	0.021	
	Sludge Waste	0.238	0.035	0.203	
	Wood/Wood Waste Solids	2.550	0.064	2.486	
Biorefineries	Total	616.844	-	616.844	
	Biofuel Losses and Coproducts ³	616.844	-	616.844	
	Biodiesel Feedstock	0.892	-	0.892	
	Ethanol Feedstock	615.952	-	615.952	
Other ¹	Total	9.301	0.420	8.881	
Nonspecified ²	Total	119.528	-	119.528	
	Ethanol ⁴	13.247	-	13.247	
	Landfill Gas	103.739	-	103.739	
	Municipal Solid Waste Biogenic ⁵	2.542	-	2.542	

See footnotes at end of table.

Table 1.8 Industrial biomass energy consumption and electricity net generation by industry and energy source, 2009 (cont.)

¹Other includes Apparel; Petroleum Refining; Rubber and Misc. Plastic Products; Transportation Equipment; Stone, Clay, Glass, and Concrete Products; Furniture and Fixtures; and related industries.

²Primary purpose of business is not specified.

³Losses and coproducts from production of biodiesel and ethanol calculated as the difference between energy in feedstocks and production.

⁴Ethanol primarily derived from corn minus denaturant.

⁵Includes paper and paper board, wood, food, leather, textiles and yard trimmings.

s = Value is less than 0.5 of the table metric, but value is included in any associated total.

- = No data reported.

Note: Totals may not equal sum of components due to independent rounding. Starting with 2004 EIA adopted a new method of allocating fuel consumption between electric power generation and useful thermal out put (UTO) for combined heat and power (CHP) plants. The new method proportionately distributes a CHP plant's losses between the two output products (electric power and UTO) assuming the same efficiency for production of electricity as UTO.

Sources: U.S. Energy Information Administration, Form EIA-923, "Power Plant Operations Report;" Government Advisory Associates, Resource Recovery Yearbook and Methane Recovery Yearbook; U.S. Environmental Protection Agency, Landfill Methane Outreach Program estimates; ethanol and biofuel losses and coproducts: table 1.2 of this report; and analysis conducted by the U.S. Energy Information Administration, Office of Electricity, Coal, Nuclear, and and Renewables analysis.