

Table 7. Industrial biomass energy consumption and electricity net generation by industry and energy source, 2010

Industry	Energy Source	Biomass Energy Consumption (Trillion Btu)			Net Generation (Million Kilowatthours)
		Total	For Electricity	For Useful Thermal Output	
Total	Total	2,229.681	180.338	2,049.343	26,580
Agriculture, Forestry and Mining	Total	18.916	3.322	15.594	225
	Agricultural Byproducts/Crops	16.791	1.197	15.594	221
	Other Biomass Solids	2.125	2.125	-	4
Manufacturing	Total	2,084.491	177.016	1,907.475	26,355
Food and Kindred Products	Total	27.687	1.862	25.824	220
	Agricultural Byproducts/Crops	15.745	0.182	15.564	12
	Other Biomass Gases	0.174	0.047	0.126	4
	Other Biomass Liquids	0.065	0.065	-	6
	Other Biomass Solids	3.745	1.075	2.669892	107
	Sludge Waste	1.124	0.246	0.878	39
	Wood/Wood Waste Solids	6.834	0.247	6.587	50
Lumber	Total	234.300	10.838	223.462	1,298
	Sludge Waste	0.033	0.003	0.030	1
	Wood/Wood Waste Solids	234.268	10.836	223.432	1,298
Paper and Allied Products	Total	1,067.523	163.830	903.693	24,766
	Agricultural Byproducts/Crops	1.127	0.007	1.120	1
	Black Liquor	751.496	110.040	641.456	16,860
	Other Biomass Gases	0.157	0.013	0.144	3
	Other Biomass Liquids	0.004	0.001	0.003	-
	Other Biomass Solids	13.668	2.265	11.403	329
	Sludge Waste	3.396	0.688	2.708	90
	Wood/Wood Waste Liquids	2.934	0.420	2.514	80
	Wood/Wood Waste Solids	294.741	50.397	244.344	7,404
Chemicals and Allied Products	Total	2.554	0.125	2.429	24
	Other Biomass Liquids	0.035	0.001	0.034	0.217
	Sludge Waste	0.312	0.049	0.263	10
	Wood/Wood Waste Solids	2.207	0.075	2.132	14
Biorefineries	Total	742.020	-	742.020	-
	Biofuel Losses and Co-products ³	742.020	-	742.020	-
	Biodiesel Feedstock	0.545	-	0.545	-
	Ethanol Feedstock	741.475	-	741.475	-
Other ¹	Total	10.407	0.360	10.047	48
Nonspecified ²	Total	126.274	-	126.274	-
	Ethanol ⁴	17.412	-	17.412	-
	Landfill Gas	106.319	-	106.319	-
	Municipal Solid Waste Biogenic ⁵	2.543	-	2.543	-

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 co-products 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.

- = No data reported.

Notes: Totals may not equal sum of components due to independent rounding. EIA uses a method of allocating fuel consumption between electric power generation and useful thermal output (UTO) for combined heat and power (CHP) plants. The 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 co-products: Table 2 of this report; and analysis conducted by the U.S. Energy Information Administration, Office of Electricity, Coal, Nuclear, and Renewables analysis.