

Table 939. Solar Collector Shipments by Type, End Use, and Market Sector: 1980 to 2008

[Shipments in thousands of square feet (19,398 represents 19,398,000). Solar collector is a device for intercepting sunlight, converting the light to heat, and carrying the heat to where it will be either used or stored. 1985 data are not available. Based on the Annual Solar Thermal Collector Manufacturers Survey]

Year	Number of manufacturers Total shipments ^{1, 2, 3}		Collector type		End use			Market sector		
			Low temperature ^{1, 2}	Medium temperature, special/other ²	Pool heating	Hot water	Space heating	Residential	Com-mercial	Indus-trial
1980	233	19,398	12,233	7,165	12,029	4,790	1,688	16,077	2,417	488
1990	51	11,409	3,645	2,527	5,016	1,091	2	5,835	294	22
1995	36	7,666	6,813	840	6,763	755	132	6,966	604	82
2000	26	8,354	7,948	400	7,863	367	99	7,473	810	57
2005	25	16,041	15,224	702	15,041	640	228	14,681	1,160	31
2007	60	15,153	13,323	1,797	12,076	1,393	189	12,799	931	46
2008	74	16,963	14,015	2,560	11,973	1,978	186	13,000	1,294	128

¹ Includes shipments of high temperature collectors to the government, including some military, but excluding space applications. Also includes end uses such as process heating, utility, and other market sectors, not shown separately. ² Includes imputation of shipment data to account for nonrespondents. ³ Total shipments include all domestic and export shipments and may include imported collectors that subsequently were shipped to domestic or foreign customers.

Source: U.S. Energy Information Administration, 1980–1990, "Solar Collector Manufacturing Activity", annual reports; 1995–2002, "Renewable Energy Annual"; thereafter, "Solar Thermal Collector Manufacturing Activities 2008," January 2010, <<http://www.eia.doe.gov/cneaf/solar.renewables/page/solarreport/solar.html>>.

Table 940. Electricity Net Generation by Sector and Fuel Type: 1990 to 2009

[3,037.8 represents 3,037,800,000,000 kWh. Data are for fuels consumed to produce electricity. Also includes fuels consumed to produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants]

Source and sector	Unit	1990	1995	2000	2005	2008	2009 ¹
Net generation, total	Bil. kWh	3,037.8	3,353.5	3,802.1	4,055.4	4,119.4	3,953.1
Electric power sector, total	Bil. kWh	2,901.3	3,194.2	3,637.5	3,902.2	3,974.3	3,814.3
Electricity-only plants ²	Bil. kWh	2,840.0	3,052.8	3,472.9	3,721.8	3,807.4	3,652.7
Combined-heat-and-power plants ³	Bil. kWh	61.3	141.5	164.6	180.4	166.9	161.6
Commercial sector ⁴	Bil. kWh	5.8	8.2	7.9	8.5	7.9	7.6
Industrial sector ⁵	Bil. kWh	130.7	151.0	156.7	144.7	137.1	131.2
Net generation by source, all sectors:							
Fossil fuels, total	Bil. kWh	2,103.6	2,293.9	2,692.5	2,909.5	2,926.7	2,734.4
Coal ⁶	Bil. kWh	1,594.0	1,709.4	1,966.3	2,012.9	1,985.8	1,764.5
Petroleum ⁷	Bil. kWh	126.5	74.6	111.2	122.2	46.2	38.8
Natural gas ⁸	Bil. kWh	372.8	496.1	601.0	761.0	883.0	920.4
Other gases ⁹	Bil. kWh	10.4	13.9	14.0	13.5	11.7	10.7
Nuclear electric power	Bil. kWh	576.9	673.4	753.9	782.0	806.2	798.7
Hydroelectric pumped storage ¹⁰	Bil. kWh	-3.5	-2.7	-5.5	-6.6	-6.3	-4.3
Renewable energy, total	Bil. kWh	357.2	384.8	356.5	357.7	381.0	413.2
Conventional hydroelectric power	Bil. kWh	292.9	310.8	275.6	270.3	254.8	272.1
Biomass, total	Bil. kWh	45.8	56.9	60.7	54.3	55.0	54.3
Wood ¹¹	Bil. kWh	32.5	36.5	37.6	38.9	37.3	36.2
Waste ¹²	Bil. kWh	13.3	20.4	23.1	15.4	17.7	18.1
Geothermal	Bil. kWh	15.4	13.4	14.1	14.7	15.0	15.2
Solar ¹³	Bil. kWh	0.4	0.5	0.5	0.6	0.9	0.8
Wind	Bil. kWh	2.8	3.2	5.6	17.8	55.4	70.8
Other ¹⁴	Bil. kWh	3.6	4.1	4.8	12.8	11.7	11.1
Consumption of fuels for electricity generation:							
Coal ⁶	Mil. sh. tons	792.5	860.6	994.9	1,041.4	1,042.3	938.1
Petroleum, total	Mil. bbl.	218.8	132.6	195.2	206.8	80.9	67.9
Distillate fuel oil ¹⁵	Mil. bbl.	18.1	19.6	31.7	20.7	12.8	12.5
Residual fuel oil ¹⁶	Mil. bbl.	190.7	95.5	143.4	141.5	38.2	28.4
Other liquids ¹⁷	Mil. bbl.	0.4	0.7	1.4	3.0	2.8	2.7
Petroleum coke	Mil. sh. Tons ¹⁸	1.9	3.4	3.7	8.3	5.4	4.9
Natural gas ⁸	Bil. cu. ft.	3,691.6	4,737.9	5,691.5	6,036.4	6,895.8	7,104.6
Other gases ⁹	Tril. Btu.	111.8	132.5	126.0	109.9	96.8	86.0
Biomass	Tril. Btu.	653.5	795.6	825.9	585.3	605.7	576.1
Wood ¹¹	Tril. Btu.	442.3	479.9	495.8	355.3	338.8	317.5
Waste ¹²	Tril. Btu.	211.2	315.7	330.1	230.1	267.0	258.5
Other ¹⁴	Tril. Btu.	36.0	42.0	46.2	173.0	169.9	159.0

¹ Preliminary. ² Electricity-only plants within the NAICS 22 category whose primary business is to sell electricity to the public. Data also include a small number of electric utility combined-heat-and-power plants (CHP). ³ Combined-heat-and-power plants within the NAICS 22 category whose primary business is to sell electricity and/or heat to the public. Data do not include electric utility CHP plants—these are included under electricity-only plants. ⁴ Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. ⁵ Industrial combined-heat-and-power (HCP) and industrial electricity-only plants. ⁶ Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel. ⁷ Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil. ⁸ Includes a small amount of supplemental gaseous fuels that cannot be identified separately. ⁹ Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels. ¹⁰ Pumped storage facility production minus energy used for pumping. ¹¹ Wood and wood-derived fuels. ¹² Municipal solid waste from biogenic sources, landfill gas, sludge waste, tires, agricultural by-products, and other biomass. Through 2000, also includes nonrenewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels). ¹³ Solar thermal and photovoltaic energy. ¹⁴ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and beginning 2005, nonrenewable waste (municipal solid waste from nonbiogenic sources, and tire-derived fuels). ¹⁵ Fuel oil numbers 1, 2, and 4. Prior to 2005, electric utility data also include small amounts of kerosene and jet fuel. ¹⁶ Fuel oil numbers 5 and 6. Prior to 2005, electric utility data also include a small amount of fuel oil number 4. ¹⁷ Jet fuel, kerosene, other petroleum liquids, and waste oil. ¹⁸ Short tons.

Source: U.S. Energy Information Administration, *Annual Energy Review 2009*, August 2010. See also <<http://www.eia.doe.gov/emeu/aer/contents.html>>.