

Renewable Energy Annual 2006

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**Table 1.1. U.S. Energy Consumption by Energy Source, 2002-2006
(Quadrillion Btu)**

Energy Source	2002	2003	2004	2005	2006
Total ^a	97.684	97.971	100.051	100.161	99.398
Fossil Fuels	83.994	84.386	86.191	86.451	85.307
Coal	21.904	22.321	22.466	22.795	22.452
Coal Coke Net Imports	0.061	0.051	0.138	0.044	0.061
Natural Gas ^b	23.558	22.897	22.931	22.583	22.190
Petroleum ^c	38.227	38.809	40.294	40.393	39.958
Electricity Net Imports	0.072	0.022	0.039	0.084	0.063
Nuclear Electric Power	8.143	7.959	8.222	8.160	8.214
Renewable Energy	5.893	6.150	6.261	6.444	6.922
Biomass ^d	2.706	2.817	3.023	3.154	3.374
Biofuels	0.309	0.414	0.513	0.595	0.795
Waste	0.402	0.401	0.389	0.403	0.407
Wood Derived Fuels	1.995	2.002	2.121	2.156	2.172
Geothermal Energy	0.328	0.331	0.341	0.343	0.343
Hydroelectric Conventional	2.689	2.825	2.690	2.703	2.869
Solar/PV Energy	0.064	0.064	0.065	0.066	0.072
Wind Energy	0.105	0.115	0.142	0.178	0.264

^a Ethanol blended into motor gasoline is included in both "Petroleum" and "Biomass," but is counted only once in total consumption.

^b Includes supplemental gaseous fuels.

^c Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel.

^d Biomass includes: biofuels, waste (landfill gas, MSW biogenic, and other biomass), wood and wood derived fuels.

MSW=Municipal Solid Waste.

Note: Data revisions are discussed in Highlights section. Totals may not equal sum of components due to independent rounding.

Non-renewable energy: Energy Information Administration (EIA), Monthly Energy Review (MER) December 2007, DOE/EIA-0035 (2007/12) (Washington, DC, Decemberr 2007,) Tables 1.3, 1.4a and 1.4b. Renewable Energy: Table 2 of this report.

Table 1.2. Renewable Energy Consumption by Energy Use Sector and Energy Source, 2002-2006
(Quadrillion Btu)

Sector and Source	2002	2003	2004	2005	2006
Total	5.893	6.150	6.261	6.444	6.922
Biomass	2.706	2.817	3.023	3.154	3.374
Biofuels	0.309	0.414	0.513	0.595	0.795
Biodiesel ^a	0.001	0.002	0.004	0.012	0.032
Biodiesel Feedstock ^b	*	*	*	*	*
Ethanol ^c	0.175	0.238	0.299	0.342	0.462
Ethanol Feedstock ^d	0.133	0.174	0.210	0.241	0.301
Waste	0.402	0.401	0.389	0.403	0.407
Landfill Gas	0.142	0.141	0.144	0.148	0.150
MSW Biogenic ^e	0.182	0.165	0.164	0.168	0.171
Other Biomass ^f	0.078	0.096	0.081	0.088	0.086
Wood and Derived Fuels	1.995	2.002	2.121	2.156	2.172
Geothermal	0.328	0.331	0.341	0.343	0.343
Hydroelectric Conventional	2.689	2.825	2.690	2.703	2.869
Solar/PV	0.064	0.064	0.065	0.066	0.072
Wind	0.105	0.115	0.142	0.178	0.264
Residential	0.449	0.471	0.483	0.527	0.495
Biomass	0.380	0.400	0.410	0.450	0.410
Wood and Derived Fuels ^g	0.380	0.400	0.410	0.450	0.410
Geothermal	0.010	0.013	0.014	0.016	0.018
Solar/PV ^h	0.059	0.058	0.059	0.061	0.067
Commercial	0.104	0.113	0.118	0.119	0.117
Biomass	0.095	0.101	0.105	0.105	0.102
Biofuels	*	0.001	0.001	0.001	0.001
Ethanol ^c	*	0.001	0.001	0.001	0.001
Waste	0.026	0.029	0.034	0.034	0.036
Landfill Gas	0.002	0.002	0.002	0.003	0.004
MSW Biogenic	0.020	0.022	0.025	0.025	0.026
Other Biomass ^f	0.004	0.005	0.007	0.007	0.007
Wood and Derived Fuels ⁱ	0.069	0.071	0.070	0.070	0.065
Geothermal	0.009	0.011	0.012	0.014	0.014
Hydroelectric Conventional	*	0.001	0.001	0.001	0.001
Industrial	1.723	1.731	1.861	1.884	1.999
Biomass	1.679	1.684	1.824	1.848	1.966
Biofuels	0.136	0.178	0.217	0.248	0.311
Ethanol ^c	0.003	0.005	0.006	0.007	0.009
Losses and Coproducts	0.133	0.174	0.210	0.241	0.301
Biodiesel Feedstock ^b	*	*	*	*	*
Ethanol Feedstock ^d	0.133	0.174	0.210	0.241	0.301
Waste	0.146	0.142	0.132	0.148	0.140
Landfill Gas	0.079	0.076	0.075	0.081	0.074
MSW Biogenic ^e	0.005	0.005	0.006	0.007	0.006
Other Biomass ^f	0.063	0.062	0.050	0.061	0.061
Wood and Derived Fuels ⁱ	1.396	1.363	1.476	1.452	1.515
Geothermal	0.005	0.003	0.004	0.004	0.004
Hydroelectric Conventional	0.039	0.043	0.033	0.032	0.029
Transportation	0.172	0.235	0.296	0.346	0.483
Biofuels	0.172	0.235	0.296	0.346	0.483
Biodiesel ^a	0.001	0.002	0.004	0.012	0.032
Ethanol ^c	0.171	0.233	0.292	0.334	0.451
Electric Power ^j	3.445	3.601	3.503	3.568	3.827
Biomass	0.380	0.397	0.388	0.406	0.412
Waste	0.230	0.230	0.223	0.221	0.231
Landfill Gas	0.062	0.063	0.066	0.065	0.073
MSW Biogenic	0.157	0.138	0.133	0.136	0.139
Other Biomass ^f	0.010	0.029	0.023	0.020	0.019
Wood and Derived Fuels ⁱ	0.150	0.167	0.165	0.185	0.182
Geothermal	0.305	0.303	0.311	0.309	0.306
Hydroelectric Conventional	2.650	2.781	2.656	2.670	2.839

Table 1.2. Renewable Energy Consumption by Energy Use Sector and Energy Source, 2002-2006
(Quadrillion Btu)

Sector and Source	2002	2003	2004	2005	2006
Solar/PV	0.006	0.005	0.006	0.006	0.005
Wind	0.105	0.115	0.142	0.178	0.264

^a Biodiesel primarily derived from soy bean oil.

^b Difference between the energy in biodiesel feedstocks (principally soy bean oil) and the energy in biodiesel consumed in the transportation sector.

^c Ethanol primarily derived from corn.

^d Difference between energy in ethanol feedstocks (primarily corn) and its coproducts (wet and dry distiller grains), and the energy in ethanol consumed in the transportation sector.

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

^f Agriculture byproducts/crops, sludge waste, and other biomass solids, liquids and gases.

^g Wood and wood pellet fuels.

^h Includes small amounts of distributed solar thermal and photovoltaic energy used in the commercial, industrial and electric power sectors.

ⁱ Black liquor, and wood/woodwaste solids and liquids.

^j The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

PV=Photovoltaic.

MSW=Municipal Solid Waste.

*=Less than 500 billion Btu.

NA=Not Applicable.

Note: Data revisions are discussed in the Highlights section. Revisions to biomass removed MSW non-biogenic and tires from renewable waste energy. Totals may not equal sum of components due to independent rounding.

Sources: Analysis conducted by Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels and specific sources described as follows. Residential: Energy Information Administration, Form EIA-457A/G, "Residential Energy Consumption Survey;" Oregon Institute of Technology, Geo-Heat Center; and Energy Information Administration, Form EIA-63-A, "Annual Solar Thermal Collector Manufacturers Survey" and Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey." Commercial: Energy Information Administration, Form EIA-906, "Power Plant Report", Form EIA-920, "Combined Heat and Power Plant Report;" and Oregon Institute of Technology, Geo-Heat Center. Industrial: Energy Information Administration, Form EIA-846 (A, B, C) "Manufacturing Energy Consumption Survey," Form EIA-906, "Power Plant Report" and Form EIA-920, "Combined Heat and Power Plant Report;" Oregon Institute of Technology, Geo-Heat Center; Government Advisory Associates, Resource Recovery Yearbook and Methane Recovery Yearbook; U.S. Environmental Protection Agency, Landfill Methane Outreach Program estimates; and losses and coproducts from the production of biodiesel and ethanol calculated as the difference between energy in feedstocks and production. Biofuels for Transportation: Biodiesel: 2001-2005: U.S. Department of Agriculture, Commodity Credit Corporation, Bioenergy Program estimates of production assigned to consumption and 2006 and forward: U.S. Department of Commerce, Bureau of Census, Current Industrial Reports, Fats and Oils - Production, Consumption and Stocks, and Ethanol: 2001-2004: EIA, Petroleum Supply Annual, Tables 2 and 16. Calculated as ten percent of oxygenated finished motor gasoline field production (Table 2) plus fuel ethanol refinery input (Table 16). 2005: EIA Petroleum Supply Annual 2005, Tables 1 and 15. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 15). 2006: EIA Petroleum Supply Monthly, monthly reports, Tables 1 and 27. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 27). Small amounts of ethanol consumption are distributed to the commercial and industrial sectors according to those sector's shares of U.S. motor gasoline supplied. Electric Power: Energy Information Administration, Form EIA-906, "Power Plant Report" and Form EIA-920, "Combined Heat and Power Plant Report."

Table 1.3. Renewable Energy Consumption for Electricity Generation by Energy Use Sector and Energy Source, 2002-2006 (Quadrillion Btu)

Sector/Source	2002	2003	2004	2005	2006
Total	3.967	4.016	3.936	3.929	4.229
Biomass	0.862	0.768	0.787	0.733	0.785
Waste	0.257	0.249	0.254	0.252	0.262
Landfill Gas	0.064	0.066	0.070	0.069	0.077
MSW Biogenic ^a	0.166	0.148	0.150	0.152	0.155
Other Biomass ^b	0.027	0.035	0.034	0.031	0.031
Wood and Derived Fuels ^c	0.605	0.519	0.534	0.482	0.523
Geothermal	0.305	0.303	0.311	0.309	0.306
Hydroelectric Conventional	2.689	2.825	2.690	2.703	2.869
Solar/PV	0.006	0.005	0.006	0.006	0.005
Wind	0.105	0.115	0.142	0.178	0.264
Commercial	0.019	0.021	0.024	0.026	0.028
Biomass	0.018	0.020	0.023	0.025	0.027
Waste	0.018	0.019	0.022	0.025	0.026
Landfill Gas	0.002	0.002	0.002	0.002	0.004
MSW Biogenic ^a	0.013	0.013	0.016	0.017	0.017
Other Biomass ^b	0.004	0.005	0.004	0.006	0.005
Wood and Derived Fuels ^c	*	*	0.001	0.001	0.001
Hydroelectric Conventional	*	0.001	0.001	0.001	0.001
Industrial	0.518	0.419	0.419	0.347	0.386
Biomass	0.479	0.376	0.387	0.315	0.358
Waste	0.015	0.013	0.011	0.009	0.008
Landfill Gas	0.001	0.001	0.001	0.001	*
MSW Biogenic ^a	*	*	0.001	0.001	*
Other Biomass ^b	0.014	0.012	0.008	0.007	0.007
Wood and Derived Fuels ^c	0.464	0.362	0.376	0.306	0.350
Hydroelectric Conventional	0.039	0.043	0.033	0.032	0.029
Electric Power ^d	3.430	3.576	3.493	3.556	3.815
Biomass	0.364	0.372	0.378	0.393	0.400
Waste	0.224	0.216	0.220	0.217	0.228
Landfill Gas	0.062	0.063	0.066	0.065	0.073
MSW Biogenic ^a	0.153	0.135	0.133	0.134	0.137
Other Biomass ^b	0.009	0.018	0.021	0.018	0.018
Wood and Derived Fuels ^c	0.141	0.156	0.157	0.176	0.172
Geothermal	0.305	0.303	0.311	0.309	0.306
Hydroelectric Conventional	2.650	2.781	2.656	2.670	2.839
Solar/PV	0.006	0.005	0.006	0.006	0.005
Wind	0.105	0.115	0.142	0.178	0.264

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

^b Agriculture byproducts/crops, sludge waste, tires, and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

^d The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

PV=Photovoltaic.

MSW=Municipal Solid Waste.

*=Less than 500 billion Btu.

Note: Data revisions are discussed in the Highlights section. Totals may not add due to independent rounding.

Sources: Analysis conducted by Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels and the following specific sources: Energy Information Administration, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Table 1.4. Renewable Energy Consumption for Nonelectric Use by Energy Use Sector and Energy Source, 2002-2006
(Quadrillion Btu)

Sector/Source	2002	2003	2004	2005	2006
Total	1.927	2.135	2.325	2.515	2.693
Biomass	1.844	2.049	2.236	2.421	2.589
Biofuels	0.309	0.414	0.513	0.595	0.795
Biodiesel ^a	0.001	0.002	0.004	0.012	0.032
Biodiesel Feedstock ^b	*	*	*	*	*
Ethanol ^c	0.175	0.238	0.299	0.342	0.462
Ethanol Feedstock ^d	0.133	0.174	0.210	0.241	0.301
Waste	0.145	0.153	0.135	0.152	0.145
Landfill Gas	0.078	0.075	0.074	0.079	0.073
MSW Biogenic ^e	0.016	0.016	0.014	0.016	0.016
Other Biomass ^f	0.050	0.061	0.047	0.056	0.055
Wood and Derived Fuels	1.390	1.483	1.588	1.674	1.649
Geothermal	0.024	0.027	0.030	0.034	0.037
Solar/PV	0.059	0.058	0.059	0.061	0.067
Residential	0.449	0.471	0.483	0.527	0.495
Biomass	0.380	0.400	0.410	0.450	0.410
Wood and Derived Fuels ^g	0.380	0.400	0.410	0.450	0.410
Geothermal	0.010	0.013	0.014	0.016	0.018
Solar/PV ^h	0.059	0.058	0.059	0.061	0.067
Commercial	0.085	0.092	0.095	0.093	0.089
Biomass	0.077	0.081	0.083	0.079	0.075
Biofuels	*	0.001	0.001	0.001	0.001
Ethanol ^c	*	0.001	0.001	0.001	0.001
Waste	0.008	0.010	0.012	0.009	0.010
Landfill Gas	-	-	-	*	*
MSW Biogenic ^e	0.007	0.009	0.009	0.008	0.008
Other Biomass ^f	0.001	0.001	0.002	0.001	0.001
Wood and Derived Fuels ⁱ	0.068	0.071	0.070	0.069	0.064
Geothermal	0.009	0.011	0.012	0.014	0.014
Industrial	1.204	1.312	1.442	1.537	1.613
Biomass	1.200	1.308	1.438	1.533	1.608
Biofuels	0.136	0.178	0.217	0.248	0.311
Ethanol ^c	0.003	0.005	0.006	0.007	0.009
Losses and Coproducts	0.133	0.174	0.210	0.241	0.301
Biodiesel Feedstock ^b	*	*	*	*	*
Ethanol Feedstock ^d	0.133	0.174	0.210	0.241	0.301
Waste	0.131	0.129	0.121	0.139	0.133
Landfill Gas	0.078	0.075	0.074	0.079	0.073
MSW Biogenic ^e	0.004	0.004	0.004	0.006	0.006
Other Biomass ^f	0.049	0.050	0.042	0.053	0.054
Wood and Derived Fuels ⁱ	0.932	1.001	1.100	1.146	1.165
Geothermal	0.005	0.003	0.004	0.004	0.004
Transportation	0.172	0.235	0.296	0.346	0.483
Biofuels	0.172	0.235	0.296	0.346	0.483
Biodiesel ^a	0.001	0.002	0.004	0.012	0.032
Ethanol ^c	0.171	0.233	0.292	0.334	0.451
Electric Power ^j	0.016	0.025	0.010	0.013	0.012
Biomass	0.016	0.025	0.010	0.013	0.012
Waste	0.006	0.014	0.003	0.003	0.003
Landfill Gas	*	*	-	*	-
MSW Biogenic ^e	0.005	0.003	*	0.002	0.002
Other Biomass ^f	0.001	0.011	0.002	0.002	*
Wood and Derived Fuels ⁱ	0.010	0.011	0.008	0.009	0.010

Table 1.4. Renewable Energy Consumption for Nonelectric Use by Energy Use Sector and Energy Source, 2002-2006
(Quadrillion Btu)

Sector/Source	2002	2003	2004	2005	2006
---------------	------	------	------	------	------

^a Biodiesel primarily derived from soy bean oil.

^b Difference between the energy in biodiesel feedstocks (principally soy bean oil) and the energy in biodiesel consumed in the transportation sector.

^c Ethanol primarily derived from corn.

^d Difference between energy in ethanol feedstocks (primarily corn) and its coproducts (wet and dry distiller grains), and the energy in ethanol consumed in the transportation sector.

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

^f Agriculture byproducts/crops, sludge waste, tires, and other biomass solids, liquids and gases.

^g Wood and wood pellet fuels.

^h Includes small amounts of distributed solar thermal and photovoltaic energy used in the commercial, industrial and electric power sectors.

ⁱ Black liquor, and wood/woodwaste solids and liquids.

^j The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

PV=Photovoltaic.

MSW=Municipal Solid Waste.

*=Less than 500 billion Btu.

NA=Not Applicable.

Note: Data revisions are discussed in the Highlights section. Revisions to biomass removed MSW non-biogenic and tires from renewable waste energy. Dash indicates the sector has no data to report for the energy source for that year. Totals may not equal sum of components due to independent rounding.

Sources: Analysis conducted by Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels and specific sources described as follows. Residential: Energy Information Administration, Form EIA-457A/G, "Residential Energy Consumption Survey;" Oregon Institute of Technology, Geo-Heat Center; and Energy Information Administration, Form EIA-63-A, "Annual Solar Thermal Collector Manufacturers Survey" and Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey." Commercial: Energy Information Administration, "Form EIA-920, "Combined Heat and Power Plant Report;" and Oregon Institute of Technology, Geo-Heat Center. Industrial: Energy Information Administration, Form EIA-846 (A, B, C) "Manufacturing Energy Consumption Survey," Form EIA-920, "Combined Heat and Power Plant Report;" Oregon Institute of Technology, Geo-Heat Center; Government Advisory Associates, Resource Recovery Yearbook and Methane Recovery Yearbook; U.S. Environmental Protection Agency, Landfill Methane Outreach Program estimates; and losses and coproducts from the production of biodiesel and ethanol calculated as the difference between energy in feedstocks and production. Biofuels for Transportation: Biodiesel: 2001-2005: U.S. Department of Agriculture, Commodity Credit Corporation, Bioenergy Program estimates of production assigned to consumption and 2006 and forward: U.S. Department of Commerce, Bureau of Census, Current Industrial Reports, Fats and Oils - Production, Consumption and Stocks, and Ethanol: 2001-2004: EIA, Petroleum Supply Annual, Tables 2 and 16. Calculated as ten percent of oxygenated finished motor gasoline field production (Table 2) plus fuel ethanol refinery input (Table 16). 2005: EIA Petroleum Supply Annual 2005, Tables 1 and 15. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 15). 2006: EIA Petroleum Supply Monthly, monthly reports, Tables 1 and 27. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1) adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 27). Small amounts of ethanol consumption are distributed to the commercial and industrial sectors according to those sector's shares of U.S. motor gasoline supplied. Electric Power: Energy Information Administration, Form EIA-920, "Combined Heat and Power Plant Report."

**Table 1.5a. Historical Renewable Energy Consumption by Sector and Energy Source, 1989-1999
(Quadrillion Btu)**

Sector and Energy Source	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	6.391	6.206	6.238	5.993	6.262	6.155	6.705	7.168	7.178	6.657	6.681
Biomass	3.160	2.735	2.782	2.933	2.910	3.030	3.104	3.159	3.108	2.931	2.967
Biofuels ^a	0.126	0.111	0.129	0.146	0.171	0.190	0.202	0.145	0.187	0.205	0.213
Waste ^b	0.354	0.408	0.440	0.473	0.479	0.515	0.531	0.577	0.551	0.542	0.540
Wood and Derived Fuels	2.680	2.216	2.214	2.313	2.260	2.324	2.370	2.437	2.371	2.184	2.214
Geothermal	0.317	0.336	0.346	0.349	0.364	0.338	0.294	0.316	0.325	0.328	0.331
Hydroelectric Conventional	2.837	3.046	3.016	2.617	2.892	2.683	3.205	3.590	3.640	3.297	3.268
Solar/PV	0.055	0.060	0.063	0.064	0.066	0.069	0.070	0.071	0.070	0.070	0.069
Wind	0.022	0.029	0.031	0.030	0.031	0.036	0.033	0.033	0.034	0.031	0.046
Residential	0.978	0.641	0.674	0.706	0.618	0.590	0.591	0.612	0.503	0.452	0.462
Biomass	0.920	0.580	0.610	0.640	0.550	0.520	0.520	0.540	0.430	0.380	0.390
Wood and Derived Fuels ^c	0.920	0.580	0.610	0.640	0.550	0.520	0.520	0.540	0.430	0.380	0.390
Geothermal	0.005	0.006	0.006	0.006	0.007	0.006	0.007	0.007	0.008	0.008	0.009
Solar/PV ^d	0.053	0.056	0.058	0.060	0.062	0.064	0.065	0.065	0.065	0.065	0.064
Commercial	0.102	0.098	0.100	0.109	0.114	0.112	0.118	0.135	0.138	0.127	0.129
Biomass	0.099	0.094	0.095	0.105	0.109	0.106	0.113	0.129	0.131	0.118	0.121
Biofuels ^e	0.001	0.001	*	*	*	*	*	*	*	*	*
Waste ^b	0.022	0.028	0.026	0.032	0.033	0.035	0.040	0.053	0.058	0.054	0.054
Wood and Derived Fuels ^f	0.076	0.066	0.068	0.072	0.076	0.072	0.072	0.076	0.073	0.064	0.067
Geothermal	0.003	0.003	0.003	0.003	0.003	0.004	0.005	0.005	0.006	0.007	0.007
Hydroelectric Conventional	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Industrial	1.870	1.716	1.683	1.737	1.772	1.927	1.992	2.033	2.058	1.931	1.936
Biomass	1.840	1.683	1.651	1.704	1.740	1.862	1.935	1.970	1.997	1.873	1.883
Biofuels ^g	0.056	0.049	0.057	0.064	0.075	0.083	0.087	0.062	0.082	0.090	0.093
Waste ^b	0.200	0.192	0.185	0.179	0.181	0.199	0.195	0.224	0.184	0.180	0.171
Wood and Derived Fuels ^f	1.584	1.442	1.410	1.461	1.484	1.580	1.652	1.683	1.731	1.603	1.620
Geothermal	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.004
Hydroelectric Conventional	0.028	0.031	0.030	0.031	0.030	0.062	0.055	0.061	0.058	0.055	0.049
Transportation	0.069	0.062	0.072	0.081	0.096	0.107	0.115	0.082	0.104	0.115	0.120
Biofuels ^h	0.069	0.062	0.072	0.081	0.096	0.107	0.115	0.082	0.104	0.115	0.120
Electric Power Sector ⁱ	3.372	3.689	3.710	3.360	3.662	3.420	3.889	4.305	4.375	4.032	4.034
Electric Utilities	2.983	3.151	3.114	2.712	2.953	2.714	3.173	3.553	3.620	3.279	3.123
Biomass	0.020	0.022	0.021	0.022	0.021	0.021	0.017	0.020	0.020	0.021	0.020
Waste ^b	0.010	0.013	0.014	0.013	0.011	0.013	0.010	0.012	0.013	0.013	0.013
Wood and Derived Fuels ^f	0.010	0.008	0.008	0.008	0.009	0.008	0.007	0.008	0.008	0.007	0.007
Geothermal	0.197	0.181	0.170	0.169	0.158	0.145	0.099	0.110	0.115	0.109	0.036
Hydroelectric Conventional	2.765	2.948	2.923	2.521	2.774	2.549	3.056	3.423	3.485	3.149	3.067
Solar/PV	*	*	*	*	*	*	*	*	*	*	*
Wind	*	*	*	*	*	*	*	*	*	*	*
Independent Power Producer	0.389	0.538	0.596	0.648	0.709	0.705	0.716	0.752	0.754	0.753	0.910
Biomass	0.211	0.295	0.333	0.381	0.394	0.413	0.405	0.418	0.426	0.424	0.433
Waste ^b	0.122	0.175	0.215	0.249	0.253	0.269	0.286	0.288	0.296	0.294	0.302
Wood and Derived Fuels ^f	0.089	0.120	0.118	0.132	0.141	0.144	0.119	0.130	0.129	0.129	0.131
Geothermal	0.111	0.145	0.165	0.168	0.193	0.180	0.181	0.191	0.194	0.202	0.276
Hydroelectric Conventional	0.043	0.066	0.062	0.065	0.087	0.072	0.093	0.104	0.096	0.092	0.151
Solar/PV	0.003	0.004	0.005	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Wind	0.022	0.029	0.031	0.030	0.031	0.036	0.033	0.033	0.034	0.031	0.046

Table 1.5b. Historical Renewable Energy Consumption by Sector and Energy Source, 2000-2006 (Continued)
(Quadrillion Btu)

Sector and Energy Source	2000	2001	2002	2003	2004	2005	2006
Total	6.264	5.316	5.893	6.150	6.261	6.444	6.922
Biomass	3.013	2.627	2.706	2.817	3.023	3.154	3.374
Biofuels ^a	0.241	0.258	0.309	0.414	0.513	0.595	0.795
Waste ^b	0.511	0.364	0.402	0.401	0.389	0.403	0.407
Wood and Derived Fuels	2.262	2.006	1.995	2.002	2.121	2.156	2.172
Geothermal	0.317	0.311	0.328	0.331	0.341	0.343	0.343
Hydroelectric Conventional	2.811	2.242	2.689	2.825	2.690	2.703	2.869
Solar/PV	0.066	0.065	0.064	0.064	0.065	0.066	0.072
Wind	0.057	0.070	0.105	0.115	0.142	0.178	0.264
Residential	0.490	0.439	0.449	0.471	0.483	0.527	0.495
Biomass	0.420	0.370	0.380	0.400	0.410	0.450	0.410
Wood and Derived Fuels ^c	0.420	0.370	0.380	0.400	0.410	0.450	0.410
Geothermal	0.009	0.009	0.010	0.013	0.014	0.016	0.018
Solar/PV ^d	0.061	0.060	0.059	0.058	0.059	0.061	0.067
Commercial	0.128	0.101	0.104	0.113	0.118	0.119	0.117
Biomass	0.119	0.092	0.095	0.101	0.105	0.105	0.102
Biofuels ^e	*	*	*	0.001	0.001	0.001	0.001
Waste ^b	0.047	0.025	0.026	0.029	0.034	0.034	0.036
Wood and Derived Fuels ^f	0.071	0.067	0.069	0.071	0.070	0.070	0.065
Geothermal	0.008	0.008	0.009	0.011	0.012	0.014	0.014
Hydroelectric Conventional	0.001	0.001	*	0.001	0.001	0.001	0.001
Industrial	1.930	1.721	1.723	1.731	1.861	1.884	1.999
Biomass	1.884	1.684	1.679	1.684	1.824	1.848	1.966
Biofuels ^g	0.102	0.112	0.136	0.178	0.217	0.248	0.311
Waste ^b	0.145	0.129	0.146	0.142	0.132	0.148	0.140
Wood and Derived Fuels ^f	1.636	1.443	1.396	1.363	1.476	1.452	1.515
Geothermal	0.004	0.005	0.005	0.003	0.004	0.004	0.004
Hydroelectric Conventional	0.042	0.033	0.039	0.043	0.033	0.032	0.029
Transportation	0.138	0.145	0.172	0.235	0.296	0.346	0.483
Biofuels ^h	0.138	0.145	0.172	0.235	0.296	0.346	0.483
Electric Power Sector ⁱ	3.579	2.910	3.445	3.601	3.503	3.568	3.827
Electric Utilities	2.607	2.063	2.529	2.615	2.522	2.530	2.688
Biomass	0.021	0.014	0.033	0.029	0.031	0.040	0.042
Waste ^b	0.014	0.008	0.022	0.012	0.011	0.013	0.015
Wood and Derived Fuels ^f	0.007	0.006	0.011	0.017	0.020	0.027	0.027
Geothermal	0.003	0.003	0.029	0.026	0.026	0.024	0.024
Hydroelectric Conventional	2.582	2.044	2.465	2.556	2.461	2.455	2.598
Solar/PV	*	*	*	*	*	*	*
Wind	*	0.001	0.002	0.004	0.004	0.010	0.023
Independent Power Producer	0.972	0.847	0.916	0.986	0.981	1.038	1.139
Biomass	0.432	0.323	0.347	0.368	0.357	0.365	0.370
Waste ^b	0.305	0.202	0.208	0.218	0.212	0.208	0.216
Wood and Derived Fuels ^f	0.127	0.121	0.140	0.151	0.145	0.158	0.154
Geothermal	0.293	0.286	0.275	0.277	0.285	0.285	0.282
Hydroelectric Conventional	0.185	0.165	0.185	0.224	0.196	0.215	0.242
Solar/PV	0.005	0.006	0.006	0.005	0.006	0.005	0.005
Wind	0.057	0.068	0.103	0.111	0.138	0.168	0.240

Table 1.5a and 5b. Historical Renewable Energy Consumption by Sector and Energy Source, 1989-2006 (Continued)

Notes and Sources

^a Biofuels and biofuel losses and coproducts.

^b Municipal solid waste biogenic, landfill gases, agriculture byproducts/crops, sludge waste, and other biomass solids, liquids and gases. Includes municipal solid waste nonbiogenic and tires for 1989-2000.

^c Wood and wood pellet fuel

^d Includes small amounts of distributed solar thermal and photovoltaic energy used in the commercial, industrial and electric power sectors.

^e Ethanol primarily derived from corn.

^f Black liquor, and wood/woodwaste solids and liquids.

^g Ethanol primarily derived from corn and losses and coproducts from production of biodiesel and ethanol.

^h Biodiesel primarily derived from soy bean oil and ethanol primarily derived from corn

ⁱ The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public

*=Less than 500 billion Btu.

PV=Photovoltaic.

Note: Revised data are in italics. Totals may not equal sum of components due to independent rounding.

Sources: Analysis conducted by Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels and Specific sources described as follows. Residential: Energy Information Administration, Form EIA-457A/G, "Residential Energy Consumption Survey;" Oregon Institute of Technology, Geo-Heat Center and Energy Information Administration, Form EIA-63-A, "Annual Solar Thermal Collector Manufacturers Survey" and Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey." Commercial: Energy Information Administration, Form EIA-867, "Annual Nonutility Power Producer Report," Form EIA-860B, "Annual Electric Generator Report - Nonutility," Form EIA-906, "Power Plant Report," Form EIA-920, "Combined Heat and Power Plant Report," and Oregon Institute of Technology, Geo-Heat Center. Industrial: Energy Information Administration, Form EIA-846 (A,B,C) "Manufacturing Energy Consumption Survey," Form EIA-867, "Annual Nonutility Power Producer Report," Form EIA-860B, "Annual Electric Generator Report - Nonutility," Form EIA-906, "Power Plant Report", and Form EIA-902, "Combined Heat and Power Plant Report," Oregon Institute of Technology, Geo-Heat Center; Government Advisory Associates, Resource Recovery Yearbook and Methane Recovery Yearbook; U.S. Environmental Protection Agency, Landfill Methane Outreach Program estimates; and losses and coproducts from the production of biodiesel and ethanol calculated as the difference between energy in feedstocks and production. Biofuels for Transportation: Biodiesel: 2001-2005: U.S. Department of Agriculture, Commodity Credit Corporation, Bioenergy Program estimates of production assigned to consumption and 2006 and forward: U.S. Department of Commerce, Bureau of Census, Current Industrial Reports, Fats and Oils - Production, Consumption and Stocks, and Ethanol: 1989: EIA, Estimates of U.S. Biofuels Consumption 1990, Table 10, 1990-1992: EIA, Estimates of U.S. Biomass Energy Consumption 1992, Table D2, 1993-2004: EIA, Petroleum Supply Monthly, Tables 2 and 16. Calculated as ten percent of oxygenated finished motor gasoline field production (Table 2) plus fuel ethanol refinery input (Table 16). 2005: EIA Petroleum Supply Annual 2005, Tables 1 and 15. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 15). 2006: EIA Petroleum Supply Monthly, monthly reports, Tables 1 and 27. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 27). Small amounts of ethanol consumption are distributed to the commercial and industrial sectors according to those sector's shares of U.S. motor gasoline supplied. Electric Power: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report," Form EIA-867, "Annual Nonutility Power Producer Report," Form EIA-860B, "Annual Electric Generator Report - Nonutility," and Form EIA-906 "Monthly Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

**Table 1.6. Biofuels Overview, 2002-2006
(Trillion Btu)**

Type	2002	2003	2004	2005	2006
Ethanol					
Feedstock ^a	313	410	497	570	712
Losses and Coproducts ^b	133	174	210	241	301
Production ^c	180	236	287	329	412
Net Imports ^d	1	1	13	11	62
Stock Change ^e	7	-1	0	-2	11
Consumption ^f	175	238	299	342	462
Biodiesel					
Feedstock ^g	1	2	4	12	32
Losses and Coproducts ^h	*	*	*	*	*
Production ⁱ	1	2	4	12	32

^a Total corn and other biomass inputs to the production of fuel ethanol.

^b Losses and co-products from the production of fuel ethanol. Does not include natural gas, electricity, and other non-biomass energy used in the production of fuel ethanol.

^c Fuel ethanol production.

^d Fuel ethanol imports. There are no exports.

^e Fuel ethanol stock change. A negative number indicates a decrease in stocks and a positive number indicates an increase.

^f Fuel ethanol consumption equals fuel ethanol production, plus fuel ethanol net imports, minus fuel ethanol stock change.

^g Total soy bean oil and other biomass inputs to the production of biodiesel.

^h Losses and co-products from the production of biodiesel. Does not include natural gas, electricity, and other non-biomass energy used in the production of biodiesel.

ⁱ Production of biofuels for use as diesel fuel substitutes or additives. Biodiesel consumption equals biodiesel production.

NA=Not available.

*=Less than 0.5 trillion Btu.

Note: Totals may not equal sum of components due to independent rounding.

Sources: (Note: For ethanol and biodiesel heat contents, see Table 10.) Ethanol Feedstock: Calculated as fuel ethanol production multiplied by the approximate heat content of the corn and other biomass inputs to the production of fuel ethanol. Ethanol Losses and Co-products: Calculated as ethanol feedstock minus fuel ethanol production. Ethanol Production: 2002 and forward: Energy Information Administration (EIA), Form EIA-819, "Monthly Oxygenate Report," and predecessor form. Ethanol Net Imports, Stocks and Stock Change: 2002-2005: EIA, Petroleum Supply Annual (PSA), annual reports. 2006: EIA, Petroleum Supply Monthly (PSM), monthly reports. Ethanol Consumption: 2002-2004: EIA, PSA, annual reports, Tables 2 and 16. Calculated as ten percent of oxygenated finished motor gasoline field production (Table 2), plus fuel ethanol refinery input (Table 16). 2005: EIA, PSA 2005, Tables 1 and 15. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments adjustments (Table 1), plus fuel ethanol refinery blender net inputs (Table 15). 2006: EIA, PSM, monthly reports, Tables 1 and 27. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 27). Biodiesel Feedstock: Calculated as biodiesel production multiplied by the approximate heat content of the vegetable oil and other biomass inputs to the production of biodiesel. Biodiesel Losses and Co-products: Calculated as biodiesel feedstock minus biodiesel production. Biodiesel Production: 2001-2005 U.S. Department of Agriculture, Commodity Credit Corporation, Bioenergy Program records and 2006 and forward: U.S. Department of Commerce, Bureau of Census, Current Industrial Reports, Fats and Oils - Production, Consumption and Stocks, and analysis conducted by Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

**Table 1.7. Waste Energy Consumption by Type of Waste and Energy Use Sector, 2006
(Trillion Btu)**

Type	Sector				Total
	Commercial	Industrial	Electric Power		
			Electric Utilities	Independent Power Producers	
Total	36	140	15	216	407
Landfill Gas	4	74	8	64	150
MSW Biogenic ^a	26	6	4	135	171
Other Biomass ^b	7	61	3	16	86

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

^b Agriculture byproducts/crops, sludge waste, and other biomass solids, liquids and gases.

MSW = Municipal Solid Waste

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-906, "Power Plant Report," Form EIA-920, "Combined Heat and Power Plant Report," and Government Advisory Associates, Resource Recovery Yearbook and Methane Recovery Yearbook; U.S. Environmental Protection Agency, Landfill Methane Outreach Program estimates; and analysis conducted by the Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

**Table 1.6. Biofuels Overview, 2002-2006
(Trillion Btu)**

Type	2002	2003	2004	2005	2006
Ethanol					
Feedstock ^a	313	410	497	570	712
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Consumption ^f	175	238	299	342	462
Biodiesel					
Feedstock ^g	1	2	4	12	32
Losses and Coproducts ^h	*	*	*	*	*
Production ⁱ	1	2	4	12	32

^a Total corn and other biomass inputs to the production of fuel ethanol.

^b Losses and co-products from the production of fuel ethanol. Does not include natural gas, electricity, and other non-biomass energy used in the production of fuel ethanol.

^c Fuel ethanol production.

^d Fuel ethanol imports. There are no exports.

^e Fuel ethanol stock change. A negative number indicates a decrease in stocks and a positive number indicates an increase.

^f Fuel ethanol consumption equals fuel ethanol production, plus fuel ethanol net imports, minus fuel ethanol stock change.

^g Total soy bean oil and other biomass inputs to the production of biodiesel.

^h Losses and co-products from the production of biodiesel. Does not include natural gas, electricity, and other non-biomass energy used in the production of biodiesel.

ⁱ Production of biofuels for use as diesel fuel substitutes or additives. Biodiesel consumption equals biodiesel production.

NA=Not available.

*=Less than 0.5 trillion Btu.

Note: Totals may not equal sum of components due to independent rounding.

Sources: (Note: For ethanol and biodiesel heat contents, see Table 10.) Ethanol Feedstock: Calculated as fuel ethanol production multiplied by the approximate heat content of the corn and other biomass inputs to the production of fuel ethanol. Ethanol Losses and Co-products: Calculated as ethanol feedstock minus fuel ethanol production. Ethanol Production: 2002 and forward: Energy Information Administration (EIA), Form EIA-819, "Monthly Oxygenate Report," and predecessor form. Ethanol Net Imports, Stocks and Stock Change: 2002-2005: EIA, Petroleum Supply Annual (PSA), annual reports. 2006: EIA, Petroleum Supply Monthly (PSM), monthly reports. Ethanol Consumption: 2002-2004: EIA, PSA, annual reports, Tables 2 and 16. Calculated as ten percent of oxygenated finished motor gasoline field production (Table 2), plus fuel ethanol refinery input (Table 16). 2005: EIA, PSA 2005, Tables 1 and 15. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments adjustments (Table 1), plus fuel ethanol refinery blender net inputs (Table 15). 2006: EIA, PSM, monthly reports, Tables 1 and 27. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 27). Biodiesel Feedstock: Calculated as biodiesel production multiplied by the approximate heat content of the vegetable oil and other biomass inputs to the production of biodiesel. Biodiesel Losses and Co-products: Calculated as biodiesel feedstock minus biodiesel production. Biodiesel Production: 2001-2005 U.S. Department of Agriculture, Commodity Credit Corporation, Bioenergy Program records and 2006 and forward: U.S. Department of Commerce, Bureau of Census, Current Industrial Reports, Fats and Oils - Production, Consumption and Stocks, and analysis conducted by Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Table 1.9. Net Summer Capacity of Plants Cofiring Biomass and Coal, 2006 (Megawatts)

State	Company Name	Plant I.D.	Plant Name	County	Biomass/ Coal Cofiring Capacity	Total Plant Capacity
AL	DTE Energy Services	50407	Mobile Energy Services LLC	Mobile	91	91
AL	Georgia-Pacific Corp	10699	Georgia Pacific Naheola Mill	Choctaw	31	78
AL	International Paper Co	52140	International Paper Prattville Mill	Autauga	49	90
AR	Domtar Industries Inc	54104	Ashdown	Little River	47	156
AZ	Tucson Electric Power Co	126	H Wilson Sundt Generating Station	Pima	173	558
CT	Covanta Mid-Connecticut Inc	54945	Covanta Mid-Connecticut Energy	Hartford	90	90
DE	Conectiv Delmarva Gen Inc	593	Edge Moor	New Castle	252	710
FL	International Paper Co-Pensacola	50250	International Paper Pensacola	Escambia	83	83
FL	Jefferson Smurfit Corp	10202	Jefferson Smurfit Fernandina Beach	Nassau	74	128
FL	Stone Container Corp-Panama Ci	50807	Stone Container Panama City Mill	Bay	20	34
GA	Georgia Pacific CSO LLC	54101	Georgia Pacific Cedar Springs	Early	101	101
GA	International Paper Co-Augusta	54358	International Paper Augusta Mill	Richmond	85	85
GA	SP Newsprint Company	54004	SP Newsprint	Laurens	45	82
HI	Hawaiian Com & Sugar Co Ltd	10604	Hawaiian Comm & Sugar Puunene Mill	Maui	46	62
IA	Ag Processing Inc	10223	AG Processing Inc	Wright	8	8
IA	University of Iowa	54775	University of Iowa Main Power Plant	Johnson	21	23
KY	East Kentucky Power Coop, Inc	6041	H L Spurlock	Mason	329	1,279
LA	International Paper Co	54090	International Paper Louisiana Mill	Morehouse	59	59
MD	NewPage Corporation	50282	Luke Mill	Allegany	65	65
ME	NewPage Corporation	10495	Rumford Cogeneration	Oxford	103	103
ME	S D Warren Co.- Westbrook	50447	S D Warren Westbrook	Cumberland	62	81
MI	Decorative Panels International, Inc.	10149	Decorative Panels Intl	Alpena	8	8
MI	MeadWestvaco Corp.	10208	Escanaba Paper Company	Delta	81	103
MI	TES Filer City Station LP	50835	TES Filer City Station	Manistee	70	70
MN	Minnesota Power Inc	1897	M L Hibbard	St Louis	73	123
MN	Minnesota Power Inc	10686	Rapids Energy Center	Itasca	26	28
MS	Weyerhaeuser Co	50184	Weyerhaeuser Columbus MS	Lowndes	123	123
NC	Corn Products Intl Inc	54618	Corn Products Winston Salem	Forsyth	8	8
NC	Primary Energy of North Carolina LLC	10379	Primary Energy Roxboro	Person	68	68
NC	Weyerhaeuser Co	50189	Weyerhaeuser Plymouth NC	Martin	162	162
NY	AES Greenidge	2527	AES Greenidge LLC	Yates	112	162
NY	AES Hickling LLC	2529	AES Hickling LLC	Steuben	70	70
NY	AES Jennison LLC	2531	AES Jennison LLC	Chenango	60	60
NY	Black River Generation LLC	10464	Black River Generation	Jefferson	56	56
SC	International Paper Co-Eastovr	52151	International Paper Eastover Facility	Richland	48	110
SC	Smurfit-Stone Container Enterprises Inc	50806	Stone Container Florence Mill	Florence	79	108
SC	South Carolina Electric&Gas Co	7737	Cogen South	Charleston	99	99
UT	Desert Power LP	55858	Desert Power LP	Tooele	43	135
VA	Bassett Furniture Industries Inc	50911	Bassett Table	Henry	2	2
VA	GP Big Island LLC	50479	Georgia Pacific Big Island	Bedford	8	8
VA	International Paper	52152	International Paper Franklin Mill	Isle of Wight	96	155
VA	Westvaco Corp	50900	Covington Facility	Covington	105	105
WA	Tacoma City of	3920	Steam plant	Pierce	50	50
WI	Madison Gas & Electric Co	3992	Blount Street	Dane	100	188
WI	Manitowoc Public Utilities	4125	Manitowoc	Manitowoc	10	90
WI	Minergy Neenah LLC	56037	Fox Valley Energy Center	Winnebago	6	6
WI	Mosinee Paper Corp	50614	Mosinee Paper	Marathon	20	23
WI	Northern States Power Co	3982	Bay Front	Ashland	40	68
WI	Stora Enso North America	10234	Biron Mill	Wood	22	62
WI	Stora Enso North America	10476	Whiting Mill	Portage	4	4
WI	Stora Enso North America	10477	Wisconsin Rapids Pulp Mill	Wood	72	72
WI	Stora Enso North America	54857	Niagara Mill	Marinette	12	24
Total					3,569	6,317

Note: State abbreviations are documented on the United States Postal Service website: http://www.usps.com/ncsc/lookups/usps_abbreviations.htm.
Source: Energy Information Administration, Form EIA-860, "Annual Electric Generator Report," Schedule 3, Part B.

Table 1.10. Average Heat Content of Selected Biomass Fuels

Fuel Type	Heat Content	Units
Agricultural Byproducts	8.248	Million Btu/Short Ton
Biodiesel	5.359	Million Btu/Barrel
Black Liquor	11.758	Million Btu/Short Ton
Digester Gas	0.619	Million Btu/Thousand Cubic Feet
Ethanol	3.539	Million Btu/Barrel
Landfill Gas	0.490	Million Btu/Thousand Cubic Feet
MSW Biogenic	9.696	Million Btu/Short Ton
Methane	0.841	Million Btu/Thousand Cubic Feet
Paper Pellets	13.029	Million Btu/Short Ton
Peat	8.000	Million Btu/Short Ton
Railroad Ties	12.618	Million Btu/Short Ton
Sludge Waste	7.512	Million Btu/Short Ton
Sludge Wood	10.071	Million Btu/Short Ton
Solid Byproducts	25.830	Million Btu/Short Ton
Spent Sulfite Liquor	12.720	Million Btu/Short Ton
Utility Poles	12.500	Million Btu/Short Ton
Waste Alcohol	3.800	Million Btu/Barrel
Wood/Wood Waste	9.961	Million Btu/Short Ton

MSW=Municipal Solid Waste.

Note: For detailed characteristics of biomass feedstocks, see the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, website here: http://www1.eere.energy.gov/biomass/for_researchers.html .

Sources: Biodiesel and ethanol: Energy Information Administration, Monthly Energy Review October 2007, DOE/EIA-0035 (2007/10) (Washington, DC, October 2007), Table A3; MSW Biogenic: Energy Information Administration, Methodology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy (Washington, DC, May 2007); and all other fuel types: Energy Information Administration, Form EIA-860B (1999), "Annual Electric Generator Report - Nonutility 1999."

Table 1.11. Electricity Net Generation From Renewable Energy by Energy Use Sector and Energy Source, 2002-2006
(Thousand Kilowatthours)

Sector/Source	2002	2003	2004	2005	2006
Total	343,438,006	355,293,117	351,020,906	357,533,995	385,669,799
Biomass	53,708,755	53,341,090	53,073,730	54,160,152	54,758,512
Waste	15,043,717	15,811,993	15,497,309	15,479,005	16,109,652
Landfill Gas	4,759,765	5,077,451	5,128,416	5,135,256	5,677,253
MSW Biogenic ^a	8,637,916	8,306,065	8,153,230	8,334,720	8,476,478
Other Biomass ^b	1,646,034	2,428,477	2,215,664	2,009,029	1,955,921
Wood and Derived Fuels ^c	38,665,038	37,529,097	37,576,421	38,681,147	38,648,859
Geothermal	14,491,310	14,424,231	14,810,974	14,691,745	14,568,029
Hydroelectric Conventional	264,328,831	275,806,328	268,417,306	270,321,255	289,246,416
Solar/PV	554,831	534,001	575,155	550,294	507,706
Wind	10,354,279	11,187,467	14,143,741	17,810,549	26,589,137
Commercial	1,078,019	1,374,208	1,645,981	1,752,519	1,688,360
Biomass	1,065,222	1,301,964	1,541,015	1,666,483	1,594,915
Waste	1,052,717	1,288,914	1,527,371	1,650,485	1,574,314
Landfill Gas	99,761	151,801	172,029	210,824	171,979
MSW Biogenic ^a	653,997	716,921	945,812	953,591	956,337
Other Biomass ^b	298,957	420,192	409,530	486,070	445,999
Wood and Derived Fuels ^c	12,505	13,049	13,644	15,998	20,600
Hydroelectric Conventional	12,797	72,245	104,966	86,037	93,446
Industrial	34,313,831	32,926,240	31,923,526	32,082,295	31,796,137
Biomass	30,489,184	28,703,816	28,675,032	28,886,854	28,897,089
Waste	845,979	715,445	839,555	789,325	600,979
Landfill Gas	70,882	96,018	120,014	113,082	28,785
MSW Biogenic ^a	73,543	35,997	31,333	37,463	33,689
Other Biomass ^b	701,554	583,431	688,209	638,781	538,504
Wood and Derived Fuels ^c	29,643,205	27,988,371	27,835,477	28,097,529	28,296,111
Hydroelectric Conventional	3,824,647	4,222,424	3,248,494	3,195,441	2,899,048
Electric Power ^d	308,046,156	320,992,669	317,451,398	323,699,182	352,185,302
Biomass	22,154,349	23,335,310	22,857,682	23,606,816	24,266,508
Waste	13,145,021	13,807,633	13,130,382	13,039,195	13,934,359
Landfill Gas	4,589,122	4,829,632	4,836,372	4,811,350	5,476,488
MSW Biogenic ^a	7,910,375	7,553,146	7,176,084	7,343,666	7,486,452
Other Biomass ^b	645,523	1,424,854	1,117,925	884,178	971,419
Wood and Derived Fuels ^c	9,009,328	9,527,677	9,727,300	10,567,621	10,332,148
Geothermal	14,491,310	14,424,231	14,810,974	14,691,745	14,568,029
Hydroelectric Conventional	260,491,387	271,511,659	265,063,846	267,039,777	286,253,922
Solar/PV	554,831	534,001	575,155	550,294	507,706
Wind	10,354,279	11,187,467	14,143,741	17,810,549	26,589,137

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

^b Agriculture byproducts/crops, sludge waste, and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

^d The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

PV=Photovoltaic

MSW=Municipal Solid Waste.

Note: Data revisions are discussed in Highlights section. Revisions to biomass removed MSW non-biogenic and tires from renewable waste energy. Totals may not add due to independent rounding.

Sources: Energy Information Administration, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

**Table 1.12. U.S. Electric Net Summer Capacity, 2002-2006
(Megawatts)**

Source	2002	2003	2004	2005	2006
Total	905,301	948,446	962,942	978,020	986,215
Renewable Total	96,066	96,847	96,357	98,746	101,934
Biomass	9,644	9,628	9,711	9,802	10,100
Waste	3,800	3,758	3,529	3,609	3,727
Landfill Gas	838	863	859	887	978
MSW ^a	2,492	2,442	2,196	2,167	2,188
Other Biomass ^b	470	453	474	554	561
Wood and Derived Fuels ^c	5,844	5,871	6,182	6,193	6,372
Geothermal	2,252	2,133	2,152	2,285	2,274
Hydroelectric Conventional	79,356	78,694	77,641	77,541	77,821
Solar/PV	397	397	398	411	411
Wind	4,417	5,995	6,456	8,706	11,329
Nonrenewable Total	809,236	851,599	866,585	879,274	884,281

^a Includes total capacity whose primary energy source is MSW.

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases. Does not include tires.

^c Black liquor, and wood/woodwaste solids and liquids.

MSW=Municipal Solid Waste.

Note: Data revisions are discussed in Highlights section. Revisions to biomass capacity removed tires from renewable waste energy.

Totals may not add due to independent rounding.

Sources: Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

Table 1.13. Renewable Electricity Net Generation by Energy Source and Census Division, 2006
(Thousand Kilowatthours)

Census Division	Biomass				Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste			Wood and Derived Fuels ^c					
	Landfill Gas	MSW Biogenic ^a	Other Biomass ^b						
Total	5,677,253	8,476,478	1,955,921	38,648,859	14,568,029	289,246,416	507,706	26,589,137	385,669,799
New England	385,863	2,035,095	75,575	4,854,236	-	9,388,153	-	10,688	16,749,610
Middle Atlantic	1,001,612	2,622,271	126,203	1,218,585	-	30,224,233	-	1,032,470	36,225,374
East North Central	1,683,595	252,492	59,315	2,900,838	-	4,493,674	-	372,560	9,762,474
West North Central	216,954	347,695	66,795	586,447	-	7,501,194	-	6,144,355	14,863,441
South Atlantic	453,800	2,659,809	610,339	10,874,453	-	13,446,121	-	173,757	28,218,279
East South Central	115,325	-	30,207	6,231,208	-	17,592,137	-	54,598	24,023,475
West South Central	226,220	-	150,824	5,819,482	-	3,549,323	-	8,382,956	18,128,805
Mountain	36,639	6,179	56,841	625,957	1,534,319	33,802,580	13,134	3,485,620	39,561,269
Pacific Contiguous	1,557,245	363,775	637,143	5,537,139	12,821,434	167,905,306	494,572	6,851,671	196,168,284
Pacific Noncontiguous	-	189,162	142,679	514	212,276	1,343,694	-	80,462	1,968,788

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

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

PV=Photovoltaic

MSW=Municipal Solid Waste

*=Less than 500 kilowatthours

Note: Dash indicates the division has no data to report for that energy source. Totals may not add due to independent rounding.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table 1.14. Industrial Biomass Electricity Net Generation by Census Division and Energy Sources, 2006
(Thousand Kilowatthours)

Energy Source	Census Division										
	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific Contiguous	Pacific Noncontiguous	Total
Total	1,901,010	739,035	1,695,714	506,688	9,473,607	6,067,872	5,844,973	541,791	2,112,812	13,588	28,897,089
Agricultural Byproducts/Crops	-	-	-	3,544	167,202	6,480	18,203	-	-	7,439	202,868
Black Liquor	791,866	545,067	828,049	149,056	6,702,807	4,241,271	3,796,751	262,087	632,342	-	17,949,296
Landfill Gases	-	-	23,894	-	954	3,937	-	-	-	-	28,785
MSW Biogenic	-	-	-	-	33,689	-	-	-	-	-	33,689
Other Biomass Gases	-	-	2,367	7,612	2,027	-	-	-	-	-	12,007
Other Biomass Liquids	129	2,889	-	-	-	-	-	-	-	6,149	9,167
Other Biomass Solids	-	-	30,507	-	111,057	-	-	-	-	-	141,564
Sludge Waste	39,863	3,467	12,395	4,398	52,065	22,441	7,288	-	30,982	-	172,899
Wood/Wood Waste Liquids	-	76,395	-	-	-	-	-	-	77,843	-	154,237
Wood/Wood Waste Solids	1,069,153	111,217	798,501	342,077	2,403,805	1,793,743	2,022,731	279,704	1,371,645	-	10,192,577

MSW=Municipal Solid Waste.

*=Less than 500 kilowatthours

Note: Dash indicates the division has no data to report for that energy source. Totals may not add due to independent rounding.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table 1.15. Renewable Electric Power Sector Net Generation by Energy Source and State, 2005
(Thousand Kilowatthours)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	-	-	202,010	-	10,144,581	-	-	10,346,591
Alaska	-	-	-	-	1,463,942	-	589	1,464,531
Arizona	44,690	-	12,058	-	6,410,064	13,581	-	6,480,393
Arkansas	-	22,770	-	-	3,082,516	-	-	3,105,286
California	1,455,822	259,668	2,748,429	13,022,639	39,626,441	536,713	4,262,229	61,911,941
Colorado	-	33,879	*	-	1,415,296	-	776,234	2,225,857
Connecticut	746,021	-	7,314	-	478,199	-	-	1,231,534
Delaware	-	-	-	-	-	-	-	-
District of Columbia	-	-	-	-	-	-	-	-
Florida	1,773,489	242,555	479,219	-	266,159	-	-	2,761,421
Georgia	16,247	-	-	-	4,012,283	-	-	4,028,530
Hawaii	-	134,783	-	221,597	62,321	-	6,632	425,333
Idaho	-	-	87,703	-	8,542,121	-	-	8,629,824
Illinois	516,661	47,805	-	-	129,037	-	141,146	834,649
Indiana	20,022	-	-	-	438,282	-	-	458,304
Iowa	81,991	-	-	-	959,526	-	1,647,134	2,688,651
Kansas	-	-	-	-	11,337	-	425,823	437,160
Kentucky	62,098	-	-	-	2,961,193	-	-	3,023,291
Louisiana	-	75,961	-	-	810,948	-	-	886,909
Maine	136,078	6,479	1,875,102	-	3,465,890	-	-	5,483,548
Maryland	376,258	-	-	-	1,703,639	-	-	2,079,897
Massachusetts	1,113,754	*	120,027	-	1,041,455	-	-	2,275,248
Michigan	566,219	-	1,064,194	-	1,432,730	-	1,848	3,064,991
Minnesota	398,226	-	102,799	-	645,120	-	1,582,477	2,728,622
Mississippi	-	-	-	-	-	-	-	-
Missouri	-	-	-	-	1,159,326	-	-	1,159,326
Montana	-	-	-	-	9,587,349	-	-	9,587,349
Nebraska	24,566	7,449	-	-	871,473	-	96,608	1,000,096
Nevada	-	-	-	1,262,707	1,702,380	-	-	2,965,087
New Hampshire	156,166	-	661,530	-	1,790,729	-	-	2,608,425
New Jersey	872,481	-	-	-	29,392	-	-	901,873
New Mexico	-	4,644	-	-	164,993	-	794,630	964,267
New York	1,213,349	13,809	286,416	-	25,719,915	-	102,990	27,336,479
North Carolina	87,015	-	388,115	-	4,656,454	-	-	5,131,584
North Dakota	-	-	-	-	1,341,824	-	220,345	1,562,169
Ohio	22,526	-	44,273	-	515,744	-	13,268	595,811
Oklahoma	-	-	-	-	2,630,361	-	847,773	3,478,134
Oregon	70,693	13,319	311,132	-	30,948,345	-	734,274	32,077,763
Pennsylvania	1,232,516	1,672	199,107	-	2,232,179	-	284,241	3,949,715
Rhode Island	-	-	-	-	6,734	-	-	6,734
South Carolina	44,159	-	272,908	-	2,935,642	-	-	3,252,709
South Dakota	-	-	-	-	3,074,566	-	158,104	3,232,670
Tennessee	27,265	-	-	-	8,537,997	-	3,339	8,568,601
Texas	192,377	9,045	-	-	1,332,560	-	4,237,209	5,771,191
Utah	3,948	-	-	184,802	784,463	-	-	973,213
Vermont	-	-	401,638	-	1,189,668	-	11,486	1,602,792
Virginia	434,043	-	540,332	-	1,471,118	-	-	2,445,493
Washington	170,700	5,889	620,298	-	72,022,983	-	498,470	73,318,340
West Virginia	-	*	*	-	891,891	-	153,892	1,046,496
Wisconsin	295,638	4,188	142,108	-	1,530,237	-	92,544	2,064,715
Wyoming	-	-	-	-	808,375	-	717,264	1,525,639
Total	12,155,016	884,178	10,567,621	14,691,745	267,039,777	550,294	17,810,549	323,699,181

^a Includes landfill gas and MSW biogenic (Paper and paper board, wood, food, leather, textiles and yard trimmings.).

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

*=Less than 500 kilowatthours

PV=Photovoltaic.

MSW=Municipal Solid Waste.

Note: Revisions to biomass removed MSW non-biogenic and tires from renewable waste energy. The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report," and Form EIA-920, " Combined Heat and Power Plant Report."

**Table 1.16. Renewable Commercial and Industrial Sector Net Generation by Energy Source and State, 2005
(Thousand Kilowatthours)**

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	3,494	17,342	3,536,410	-	-	-	-	3,557,246
Alaska	-	4,873	*	-	-	-	-	5,254
Arizona	-	3,666	-	-	-	-	-	3,666
Arkansas	-	4,923	1,706,996	-	-	-	-	1,711,920
California	131,675	369,568	861,668	-	5,426	-	-	1,368,336
Colorado	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-
District of Columbia	-	-	-	-	-	-	-	-
Florida	1,783	340,090	1,526,718	-	-	-	-	1,868,592
Georgia	12,424	48,711	3,148,749	-	19,770	-	-	3,229,654
Hawaii	163,003	12,932	-	-	33,867	-	-	209,802
Idaho	-	-	489,337	-	-	-	-	489,337
Illinois	76,664	646	-	-	-	-	-	77,310
Indiana	47,757	-	-	-	-	-	-	47,757
Iowa	-	34,852	-	-	-	-	-	34,852
Kansas	-	-	-	-	-	-	-	-
Kentucky	-	1,222	359,065	-	-	-	-	360,287
Louisiana	-	4,546	2,643,987	-	-	-	-	2,648,533
Maine	97,726	48,075	1,911,531	-	625,036	-	-	2,682,368
Maryland	41,147	-	195,466	-	-	-	-	236,613
Massachusetts	-	24,498	-	-	*	-	-	24,993
Michigan	147,849	3,021	737,136	-	28,978	-	-	916,984
Minnesota	11,028	6,476	546,617	-	129,609	-	-	693,728
Mississippi	-	5,344	1,519,941	-	-	-	-	1,525,285
Missouri	-	9,249	-	-	-	-	-	9,249
Montana	-	-	65,245	-	-	-	-	65,245
Nebraska	-	10,631	-	-	-	-	-	10,631
Nevada	-	-	-	-	-	-	-	-
New Hampshire	-	-	124,203	-	8,174	-	-	132,377
New Jersey	-	2,425	-	-	1,721	-	-	4,145
New Mexico	-	-	-	-	-	-	-	-
New York	130,800	-	251,094	-	62,603	-	-	444,497
North Carolina	-	11,770	1,351,468	-	740,048	-	-	2,103,286
North Dakota	-	9,989	-	-	-	-	-	9,989
Ohio	-	4,279	314,741	-	-	-	-	319,020
Oklahoma	-	-	289,217	-	-	-	-	289,217
Oregon	-	14,031	498,174	-	-	-	-	512,205
Pennsylvania	119,519	4,023	488,389	-	-	-	-	611,931
Rhode Island	-	-	-	-	-	-	-	-
South Carolina	43,592	-	1,424,557	-	2,505	-	-	1,470,654
South Dakota	-	-	-	-	-	-	-	-
Tennessee	-	-	528,281	-	771,544	-	-	1,299,825
Texas	14,421	37,569	843,789	-	-	-	-	895,778
Utah	-	-	-	-	-	-	-	-
Vermont	-	-	8,853	-	21,143	-	-	29,997
Virginia	242,699	20,820	1,259,530	-	13,235	-	-	1,536,285
Washington	-	21,447	799,096	-	51,666	-	-	872,210
West Virginia	-	-	-	-	555,675	-	-	555,675
Wisconsin	29,381	47,830	682,888	-	209,982	-	-	970,081
Wyoming	-	-	-	-	-	-	-	-
Total	1,314,959	1,124,850	28,113,526	-	3,281,478	-	-	33,834,814

^a Includes landfill gas and MSW biogenic (Paper and paper board, wood, food, leather, textiles and yard trimmings.).

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

*=Less than 500 kilowatthours

PV=Photovoltaic.

MSW=Municipal Solid Waste.

Note: Revisions to biomass removed MSW non-biogenic and tires from renewable waste energy. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report," and Form EIA-920, " Combined Heat and Power Plant Report."

**Table 1.17. Total Renewable Net Generation by Energy Source and State, 2005
(Thousand Kilowatthours)**

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	3,494	17,342	3,738,421	-	10,144,581	-	-	13,903,838
Alaska	-	4,873	*	-	1,463,942	-	589	1,469,785
Arizona	44,690	3,666	12,058	-	6,410,064	13,581	-	6,484,059
Arkansas	-	27,693	1,706,996	-	3,082,516	-	-	4,817,205
California	1,587,497	629,236	3,610,097	13,022,639	39,631,867	536,713	4,262,229	63,280,278
Colorado	-	33,879	*	-	1,415,296	-	776,234	2,225,857
Connecticut	746,021	-	7,314	-	478,199	-	-	1,231,534
Delaware	-	-	-	-	-	-	-	-
District of Columbia	-	-	-	-	-	-	-	-
Florida	1,775,272	582,645	2,005,937	-	266,159	-	-	4,630,013
Georgia	28,671	48,711	3,148,749	-	4,032,053	-	-	7,258,184
Hawaii	163,003	147,715	-	221,597	96,188	-	6,632	635,135
Idaho	-	-	577,040	-	8,542,121	-	-	9,119,161
Illinois	593,325	48,452	-	-	129,037	-	141,146	911,960
Indiana	67,779	-	-	-	438,282	-	-	506,061
Iowa	81,991	34,852	-	-	959,526	-	1,647,134	2,723,503
Kansas	-	-	-	-	11,337	-	425,823	437,160
Kentucky	62,098	1,222	359,065	-	2,961,193	-	-	3,383,578
Louisiana	-	80,507	2,643,987	-	810,948	-	-	3,535,442
Maine	233,803	54,554	3,786,633	-	4,090,926	-	-	8,165,916
Maryland	417,405	-	195,466	-	1,703,639	-	-	2,316,510
Massachusetts	1,113,754	24,510	120,027	-	1,041,950	-	-	2,300,240
Michigan	714,068	3,021	1,801,330	-	1,461,708	-	1,848	3,981,975
Minnesota	409,254	6,476	649,415	-	774,729	-	1,582,477	3,422,350
Mississippi	-	5,344	1,519,941	-	-	-	-	1,525,285
Missouri	-	9,249	-	-	1,159,326	-	-	1,168,575
Montana	-	-	65,245	-	9,587,349	-	-	9,652,594
Nebraska	24,566	18,080	-	-	871,473	-	96,608	1,010,727
Nevada	-	-	-	1,262,707	1,702,380	-	-	2,965,087
New Hampshire	156,166	-	785,733	-	1,798,903	-	-	2,740,802
New Jersey	872,481	2,425	-	-	31,113	-	-	906,018
New Mexico	-	4,644	-	-	164,993	-	794,630	964,267
New York	1,344,149	13,809	537,510	-	25,782,518	-	102,990	27,780,976
North Carolina	87,015	11,770	1,739,583	-	5,396,502	-	-	7,234,871
North Dakota	-	9,989	-	-	1,341,824	-	220,345	1,572,158
Ohio	22,526	4,279	359,014	-	515,744	-	13,268	914,831
Oklahoma	-	-	289,217	-	2,630,361	-	847,773	3,767,351
Oregon	70,693	27,350	809,306	-	30,948,345	-	734,274	32,589,968
Pennsylvania	1,352,035	5,695	687,496	-	2,232,179	-	284,241	4,561,646
Rhode Island	-	-	-	-	6,734	-	-	6,734
South Carolina	87,751	-	1,697,465	-	2,938,147	-	-	4,723,363
South Dakota	-	-	-	-	3,074,566	-	158,104	3,232,670
Tennessee	27,265	-	528,281	-	9,309,541	-	3,339	9,868,426
Texas	206,798	46,614	843,789	-	1,332,560	-	4,237,209	6,666,969
Utah	3,948	-	-	184,802	784,463	-	-	973,213
Vermont	-	-	410,491	-	1,210,811	-	11,486	1,632,789
Virginia	676,742	20,820	1,799,862	-	1,484,353	-	-	3,981,778
Washington	170,700	27,336	1,419,394	-	72,074,649	-	498,470	74,190,549
West Virginia	-	*	*	-	1,447,566	-	153,892	1,602,171
Wisconsin	325,019	52,018	824,996	-	1,740,219	-	92,544	3,034,797
Wyoming	-	-	-	-	808,375	-	717,264	1,525,639
Total	13,469,976	2,009,029	38,681,147	14,691,745	270,321,255	550,294	17,810,549	357,533,995

^a Includes landfill gas and MSW biogenic (Paper and paper board, wood, food, leather, textiles and yard trimmings.).

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

*=Less than 500 kilowatthours

PV=Photovoltaic.

MSW=Municipal Solid Waste.

Note: Revisions to biomass removed MSW non-biogenic and tires from renewable waste energy. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report," and Form EIA-920, " Combined Heat and Power Plant Report."

Table 1.18. Renewable Electric Power Sector Net Generation by Energy Source and State, 2006
(Thousand Kilowatthours)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	-	-	196,194	-	7,251,786	-	-	7,447,980
Alaska	-	-	-	-	1,223,607	-	788	1,224,395
Arizona	27,929	-	8,240	-	6,792,904	13,134	-	6,842,207
Arkansas	7,407	20,439	-	-	1,550,558	-	-	1,578,404
California	1,561,782	275,651	2,564,861	12,821,434	48,039,986	494,572	4,882,801	70,641,086
Colorado	-	30,692	-	-	1,791,207	-	865,536	2,687,435
Connecticut	754,776	-	8,544	-	543,892	-	-	1,307,212
Delaware	*	-	-	-	-	-	-	*
District of Columbia	-	-	-	-	-	-	-	-
Florida	1,824,337	242,575	471,773	-	203,422	-	-	2,742,107
Georgia	14,908	-	-	-	2,545,504	-	-	2,560,412
Hawaii	-	129,092	-	212,276	81,792	-	79,674	502,834
Idaho	-	-	75,926	-	11,242,372	-	169,617	11,487,915
Illinois	581,899	11,993	-	-	173,272	-	254,571	1,021,735
Indiana	173,991	-	-	-	489,515	-	-	663,506
Iowa	100,268	-	-	-	909,348	-	2,317,821	3,327,437
Kansas	-	-	-	-	9,649	-	991,890	1,001,539
Kentucky	87,713	-	-	-	2,591,701	-	-	2,679,414
Louisiana	-	76,304	-	-	713,215	-	-	789,519
Maine	139,382	8,142	1,843,355	-	3,499,336	-	-	5,490,215
Maryland	392,949	-	-	-	2,104,275	-	-	2,497,224
Massachusetts	1,126,129	*	125,258	-	1,504,072	-	-	2,755,819
Michigan	583,412	-	1,065,409	-	1,488,242	-	2,212	3,139,275
Minnesota	400,307	-	95,218	-	475,342	-	2,054,947	3,025,814
Mississippi	-	-	-	-	-	-	-	-
Missouri	15,195	-	*	-	199,214	-	-	214,505
Montana	-	-	-	-	10,130,161	-	435,970	10,566,131
Nebraska	37,404	3,137	-	-	893,386	-	261,247	1,195,174
Nevada	-	-	-	1,343,711	2,057,626	-	-	3,401,337
New Hampshire	156,399	-	580,433	-	1,523,637	-	-	2,260,469
New Jersey	803,245	94,659	-	-	34,076	-	15,991	947,971
New Mexico	-	21,885	-	-	198,211	-	1,255,436	1,475,532
New York	1,276,264	10,840	292,404	-	27,252,046	-	655,371	29,486,925
North Carolina	88,110	-	447,665	-	3,333,173	-	-	3,868,948
North Dakota	-	-	-	-	1,521,034	-	369,485	1,890,519
Ohio	23,653	-	37,883	-	631,936	-	14,401	707,873
Oklahoma	-	-	-	-	623,579	-	1,712,441	2,336,020
Oregon	71,203	13,926	290,225	-	37,850,297	-	931,219	39,156,871
Pennsylvania	1,297,255	14,348	193,502	-	2,844,142	-	361,108	4,710,354
Rhode Island	148,913	-	-	-	5,909	-	-	154,822
South Carolina	61,042	-	348,887	-	1,805,295	-	-	2,215,224
South Dakota	-	-	-	-	3,396,833	-	148,965	3,545,798
Tennessee	23,675	1,286	-	-	7,167,342	-	54,598	7,246,901
Texas	201,073	7,585	-	-	661,971	-	6,670,515	7,541,144
Utah	6,179	-	-	190,608	746,783	-	-	943,570
Vermont	-	-	435,628	-	1,497,064	-	10,688	1,943,380
Virginia	443,218	-	482,711	-	1,344,890	-	-	2,270,819
Washington	165,496	6,843	600,223	-	81,943,845	-	1,037,651	83,754,058
West Virginia	-	-	-	-	1,048,467	-	173,757	1,222,224
Wisconsin	367,010	1,662	167,715	-	1,474,692	-	101,376	2,112,455
Wyoming	-	-	-	-	843,316	-	759,061	1,602,377
Total	12,962,940	971,419	10,332,148	14,568,029	286,253,922	507,706	26,589,137	352,185,302

^a Includes landfill gas and MSW biogenic (Paper and paper board, wood, food, leather, textiles and yard trimmings.).

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

*=Less than 500 kilowatthours

PV=Photovoltaic.

MSW=Municipal Solid Waste.

Note: Revisions to biomass removed MSW non-biogenic and tires from renewable waste energy. The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report," and Form EIA-920, " Combined Heat and Power Plant Report."

Table 1.19. Renewable Commercial and Industrial Sector Net Generation by Energy Source and State, 2006
(Thousand Kilowatthours)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	3,937	20,750	3,684,860	-	-	-	-	3,709,548
Alaska	-	6,149	514	-	-	-	-	6,663
Arizona	-	4,264	-	-	-	-	-	4,264
Arkansas	-	5,441	1,668,515	-	-	-	-	1,673,956
California	122,539	309,741	857,233	-	7,394	-	-	1,296,907
Colorado	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-
District of Columbia	-	-	-	-	-	-	-	-
Florida	954	309,355	1,523,481	-	-	-	-	1,833,791
Georgia	9,841	36,984	3,381,260	-	23,333	-	-	3,451,418
Hawaii	189,162	7,439	-	-	38,295	-	-	234,896
Idaho	-	-	453,672	-	-	-	-	453,672
Illinois	-	*	-	-	-	-	-	*
Indiana	46,323	-	-	-	-	-	-	46,323
Iowa	-	36,631	-	-	-	-	-	36,631
Kansas	-	-	-	-	-	-	-	-
Kentucky	-	1,691	369,986	-	-	-	-	371,677
Louisiana	-	5,124	2,949,599	-	-	-	-	2,954,723
Maine	95,359	39,992	1,847,855	-	778,796	-	-	2,762,002
Maryland	15,152	-	221,140	-	-	-	-	236,293
Massachusetts	-	27,082	-	-	8,573	-	-	35,654
Michigan	151,930	1,743	647,321	-	32,111	-	-	833,106
Minnesota	11,475	4,398	491,133	-	96,388	-	-	603,394
Mississippi	-	6,480	1,534,603	-	-	-	-	1,541,083
Missouri	-	7,612	-	-	-	-	-	7,612
Montana	-	-	88,119	-	-	-	-	88,119
Nebraska	-	11,472	-	-	-	-	-	11,472
Nevada	-	-	-	-	-	-	-	-
New Hampshire	-	-	9,570	-	5,273	-	-	14,842
New Jersey	-	2,889	-	-	1,360	-	-	4,249
New Mexico	-	-	-	-	-	-	-	-
New York	133,778	-	237,830	-	92,609	-	-	464,218
North Carolina	-	3,744	1,295,384	-	505,839	-	-	1,804,966
North Dakota	-	3,544	-	-	-	-	-	3,544
Ohio	-	10,205	312,753	-	-	-	-	322,958
Oklahoma	-	-	300,480	-	-	-	-	300,480
Oregon	-	13,524	549,758	-	-	-	-	563,283
Pennsylvania	113,341	3,467	494,849	-	-	-	-	611,657
Rhode Island	-	-	-	-	-	-	-	-
South Carolina	45,051	-	1,381,894	-	1,653	-	-	1,428,598
South Dakota	-	-	-	-	-	-	-	-
Tennessee	-	-	445,565	-	581,308	-	-	1,026,873
Texas	17,740	35,931	900,888	-	-	-	-	954,559
Utah	8,710	-	-	-	-	-	-	8,710
Vermont	-	-	3,594	-	21,601	-	-	25,195
Virginia	217,629	17,681	1,320,259	-	6,304	-	-	1,561,873
Washington	-	17,457	674,839	-	63,784	-	-	756,080
West Virginia	-	-	-	-	523,966	-	-	523,966
Wisconsin	7,868	33,322	669,756	-	203,906	-	-	914,852
Wyoming	-	-	-	-	-	-	-	-
Total	1,190,791	984,502	28,316,711	-	2,992,493	-	-	33,484,497

^a Includes landfill gas and MSW biogenic (Paper and paper board, wood, food, leather, textiles and yard trimmings.).

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

*=Less than 500 kilowatthours

PV=Photovoltaic.

MSW=Municipal Solid Waste.

Note: Revisions to biomass removed MSW non-biogenic and tires from renewable waste energy. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report," and Form EIA-920, " Combined Heat and Power Plant Report."

Table 1.20. Total Renewable Net Generation by Energy Source and State, 2006
(Thousand Kilowatthours)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	3,937	20,750	3,881,054	-	7,251,786	-	-	11,157,527
Alaska	-	6,149	514	-	1,223,607	-	788	1,231,058
Arizona	27,929	4,264	8,240	-	6,792,904	13,134	-	6,846,471
Arkansas	7,407	25,880	1,668,515	-	1,550,558	-	-	3,252,360
California	1,684,321	585,392	3,422,093	12,821,434	48,047,380	494,572	4,882,801	71,937,993
Colorado	-	30,692	-	-	1,791,207	-	865,536	2,687,435
Connecticut	754,776	-	8,544	-	543,892	-	-	1,307,212
Delaware	*	-	-	-	-	-	-	*
District of Columbia	-	-	-	-	-	-	-	-
Florida	1,825,292	551,930	1,995,254	-	203,422	-	-	4,575,897
Georgia	24,749	36,984	3,381,260	-	2,568,837	-	-	6,011,830
Hawaii	189,162	136,530	-	212,276	120,087	-	79,674	737,729
Idaho	-	-	529,598	-	11,242,372	-	169,617	11,941,587
Illinois	581,899	12,383	-	-	173,272	-	254,571	1,022,125
Indiana	220,314	-	-	-	489,515	-	-	709,829
Iowa	100,268	36,631	-	-	909,348	-	2,317,821	3,364,068
Kansas	-	-	-	-	9,649	-	991,890	1,001,539
Kentucky	87,713	1,691	369,986	-	2,591,701	-	-	3,051,091
Louisiana	-	81,428	2,949,599	-	713,215	-	-	3,744,242
Maine	234,741	48,133	3,691,210	-	4,278,132	-	-	8,252,216
Maryland	408,102	-	221,140	-	2,104,275	-	-	2,733,517
Massachusetts	1,126,129	27,442	125,258	-	1,512,645	-	-	2,791,473
Michigan	735,343	1,743	1,712,730	-	1,520,353	-	2,212	3,972,381
Minnesota	411,782	4,398	586,351	-	571,730	-	2,054,947	3,629,208
Mississippi	-	6,480	1,534,603	-	-	-	-	1,541,083
Missouri	15,195	7,612	*	-	199,214	-	-	222,117
Montana	-	-	88,119	-	10,130,161	-	435,970	10,654,250
Nebraska	37,404	14,610	-	-	893,386	-	261,247	1,206,647
Nevada	-	-	-	1,343,711	2,057,626	-	-	3,401,337
New Hampshire	156,399	-	590,003	-	1,528,910	-	-	2,275,311
New Jersey	803,245	97,548	-	-	35,436	-	15,991	952,220
New Mexico	-	21,885	-	-	198,211	-	1,255,436	1,475,532
New York	1,410,042	10,840	530,234	-	27,344,655	-	655,371	29,951,143
North Carolina	88,110	3,744	1,743,048	-	3,839,012	-	-	5,673,914
North Dakota	-	3,544	-	-	1,521,034	-	369,485	1,894,063
Ohio	23,653	10,205	350,637	-	631,936	-	14,401	1,030,831
Oklahoma	-	-	300,480	-	623,579	-	1,712,441	2,636,500
Oregon	71,203	27,450	839,984	-	37,850,297	-	931,219	39,720,153
Pennsylvania	1,410,596	17,815	688,351	-	2,844,142	-	361,108	5,322,011
Rhode Island	148,913	-	-	-	5,909	-	-	154,822
South Carolina	106,093	-	1,730,781	-	1,806,948	-	-	3,643,822
South Dakota	-	-	-	-	3,396,833	-	148,965	3,545,798
Tennessee	23,675	1,286	445,565	-	7,748,650	-	54,598	8,273,774
Texas	218,813	43,516	900,888	-	661,971	-	6,670,515	8,495,704
Utah	14,889	-	-	190,608	746,783	-	-	952,280
Vermont	-	-	439,222	-	1,518,665	-	10,688	1,968,575
Virginia	660,847	17,681	1,802,970	-	1,351,194	-	-	3,832,692
Washington	165,496	24,301	1,275,062	-	82,007,629	-	1,037,651	84,510,138
West Virginia	-	-	-	-	1,572,433	-	173,757	1,746,190
Wisconsin	374,878	34,984	837,471	-	1,678,598	-	101,376	3,027,307
Wyoming	-	-	-	-	843,316	-	759,061	1,602,377
Total	14,153,731	1,955,921	38,648,859	14,568,029	289,246,416	507,706	26,589,137	385,669,799

^a Includes landfill gas and MSW biogenic (Paper and paper board, wood, food, leather, textiles and yard trimmings.).

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

*=Less than 500 kilowatthours

PV=Photovoltaic.

MSW=Municipal Solid Waste.

Note: Revisions to biomass removed MSW non-biogenic and tires from renewable waste energy. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report," and Form EIA-920, " Combined Heat and Power Plant Report."

Table 1.21. Renewable Electric Power Sector Net Summer Capacity by Energy Source and State, 2005 (Megawatts)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	-	-	-	-	3,240	-	-	3,240
Alaska	-	-	-	-	397	-	10	406
Arizona	4	-	3	-	2,720	9	-	2,736
Arkansas	-	4	-	-	1,388	-	-	1,392
California	245	49	429	2,046	10,082	402	2,052	15,305
Colorado	-	10	-	-	652	-	228	889
Connecticut	166	-	-	-	146	-	-	313
Delaware	-	-	-	-	-	-	-	-
District of Columbia	-	-	-	-	-	-	-	-
Florida	442	75	67	-	55	-	-	639
Georgia	2	-	-	-	2,007	-	-	2,010
Hawaii	-	46	-	31	18	-	11	107
Idaho	-	-	12	-	2,390	-	11	2,412
Illinois	88	25	-	-	32	-	105	250
Indiana	10	-	-	-	60	-	-	69
Iowa	6	-	-	-	131	-	820	958
Kansas	-	-	-	-	3	-	263	266
Kentucky	10	-	-	-	817	-	-	827
Louisiana	-	12	-	-	192	-	-	204
Maine	30	35	217	-	620	-	-	901
Maryland	118	-	-	-	566	-	-	684
Massachusetts	261	-	26	-	253	-	-	540
Michigan	90	-	158	-	249	-	1	498
Minnesota	133	-	76	-	147	-	687	1,043
Mississippi	-	-	-	-	-	-	-	-
Missouri	-	-	-	-	552	-	-	552
Montana	-	-	-	-	2,619	-	135	2,754
Nebraska	3	1	-	-	269	-	73	346
Nevada	-	-	-	185	1,047	-	-	1,233
New Hampshire	31	-	91	-	507	-	-	629
New Jersey	181	19	-	-	3	-	-	203
New Mexico	-	6	-	-	82	-	404	492
New York	270	-	37	-	4,192	-	185	4,683
North Carolina	14	-	79	-	1,785	-	-	1,879
North Dakota	-	-	-	-	432	-	96	528
Ohio	4	-	7	-	101	-	7	119
Oklahoma	-	-	-	-	800	-	474	1,274
Oregon	14	3	56	-	8,336	-	298	8,708
Pennsylvania	310	-	28	-	748	-	223	1,309
Rhode Island	24	-	-	-	4	-	-	28
South Carolina	9	-	-	-	1,347	-	-	1,356
South Dakota	-	-	-	-	1,500	-	43	1,543
Tennessee	5	2	12	-	2,415	-	29	2,463
Texas	41	-	-	-	673	-	1,755	2,469
Utah	1	-	-	23	255	-	-	279
Vermont	-	-	72	-	304	-	5	381
Virginia	93	-	83	-	669	-	-	844
Washington	35	4	136	-	21,138	-	393	21,707
West Virginia	-	-	-	-	163	-	66	229
Wisconsin	46	1	73	-	444	-	45	610
Wyoming	-	-	-	-	303	-	287	590
Total	2,685	293	1,662	2,285	76,852	411	8,706	92,895

^a Total capacity whose primary energy source is landfill gas or MSW.

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

PV=Photovoltaic.

MSW=Municipal Solid Waste.

* =Less than 500 kilowatts.

Note: Revisions to biomass capacity removed tires from renewable waste energy. The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

Table 1.22. Renewable Commercial and Industrial Sector Net Summer Capacity by Energy Source and State, 2005 (Megawatts)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	-	-	553	-	-	-	-	553
Alaska	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-
Arkansas	-	2	292	-	-	-	-	293
California	13	96	147	-	6	-	-	262
Colorado	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-
Florida	-	70	276	-	-	-	-	346
Georgia	2	44	450	-	7	-	-	504
Hawaii	60	3	-	-	5	-	-	68
Idaho	-	-	66	-	-	-	-	66
Illinois	12	3	-	-	1	-	-	15
Indiana	9	-	-	-	-	-	-	9
Iowa	-	3	-	-	-	-	-	3
Kansas	-	-	-	-	-	-	-	-
Kentucky	-	-	43	-	-	-	-	43
Louisiana	-	3	318	-	-	-	-	321
Maine	24	-	388	-	100	-	-	512
Maryland	7	-	2	-	-	-	-	9
Massachusetts	-	9	-	-	7	-	-	16
Michigan	67	-	52	-	4	-	-	122
Minnesota	4	-	60	-	29	-	-	93
Mississippi	-	-	229	-	-	-	-	229
Missouri	-	-	-	-	-	-	-	-
Montana	-	-	17	-	-	-	-	17
Nebraska	-	3	-	-	-	-	-	3
New Hampshire	-	-	14	-	-	-	-	14
New Jersey	-	1	-	-	-	-	-	1
New Mexico	-	-	-	-	-	-	-	-
New York	33	-	-	-	15	-	-	48
North Carolina	-	-	211	-	160	-	-	371
North Dakota	-	10	-	-	-	-	-	10
Ohio	-	-	17	-	-	-	-	17
Oklahoma	16	-	63	-	-	-	-	78
Oregon	-	-	136	-	-	-	-	136
Pennsylvania	34	-	80	-	-	-	-	114
Rhode Island	-	-	-	-	-	-	-	-
South Carolina	10	-	217	-	1	-	-	228
Tennessee	-	-	100	-	193	-	-	293
Texas	-	16	130	-	-	-	-	145
Utah	-	-	-	-	-	-	-	-
Vermont	-	-	4	-	5	-	-	8
Virginia	76	-	326	-	4	-	-	405
Washington	-	-	192	-	8	-	-	200
West Virginia	-	-	-	-	101	-	-	101
Wisconsin	4	-	148	-	43	-	-	195
Wyoming	-	-	-	-	-	-	-	-
Total	369	261	4,532	-	688	-	-	5,850

^a Total capacity whose primary energy source is landfill gas or MSW.

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

PV=Photovoltaic.

MSW=Municipal Solid Waste.

* =Less than 500 kilowatts.

Note: Revisions to biomass capacity removed tires from renewable waste energy. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

Table 1.23. Total Renewable Net Summer Capacity by Energy Source and State, 2005 (Megawatts)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	-	-	553	-	3,240	-	-	3,793
Alaska	-	-	-	-	397	-	10	406
Arizona	4	-	3	-	2,720	9	-	2,736
Arkansas	-	6	292	-	1,388	-	-	1,686
California	258	145	577	2,046	10,087	402	2,052	15,567
Colorado	-	10	-	-	652	-	228	889
Connecticut	166	-	-	-	146	-	-	313
Delaware	-	-	-	-	-	-	-	-
District of Columbia	-	-	-	-	-	-	-	-
Florida	442	145	343	-	55	-	-	985
Georgia	5	44	450	-	2,014	-	-	2,513
Hawaii	60	49	-	31	24	-	11	175
Idaho	-	-	78	-	2,390	-	11	2,478
Illinois	100	28	-	-	33	-	105	265
Indiana	19	-	-	-	60	-	-	78
Iowa	6	3	-	-	131	-	820	961
Kansas	-	-	-	-	3	-	263	266
Kentucky	10	-	43	-	817	-	-	870
Louisiana	-	15	318	-	192	-	-	525
Maine	53	35	605	-	720	-	-	1,413
Maryland	125	-	2	-	566	-	-	693
Massachusetts	261	9	26	-	260	-	-	556
Michigan	157	-	210	-	253	-	1	620
Minnesota	137	-	136	-	176	-	687	1,136
Mississippi	-	-	229	-	-	-	-	229
Missouri	-	-	-	-	552	-	-	552
Montana	-	-	17	-	2,619	-	135	2,772
Nebraska	3	4	-	-	269	-	73	349
Nevada	-	-	-	185	1,047	-	-	1,233
New Hampshire	31	-	104	-	507	-	-	643
New Jersey	181	20	-	-	3	-	-	204
New Mexico	-	6	-	-	82	-	404	492
New York	303	-	37	-	4,207	-	185	4,732
North Carolina	14	-	291	-	1,945	-	-	2,250
North Dakota	-	10	-	-	432	-	96	537
Ohio	4	-	24	-	101	-	7	135
Oklahoma	16	-	63	-	800	-	474	1,353
Oregon	14	3	193	-	8,336	-	298	8,844
Pennsylvania	344	-	108	-	748	-	223	1,423
Rhode Island	24	-	-	-	4	-	-	28
South Carolina	19	-	217	-	1,348	-	-	1,583
South Dakota	-	-	-	-	1,500	-	43	1,543
Tennessee	5	2	113	-	2,608	-	29	2,756
Texas	41	16	130	-	673	-	1,755	2,614
Utah	1	-	-	23	255	-	-	279
Vermont	-	-	76	-	309	-	5	389
Virginia	168	-	409	-	672	-	-	1,249
Washington	35	4	328	-	21,146	-	393	21,907
West Virginia	-	-	-	-	264	-	66	330
Wisconsin	50	1	221	-	487	-	45	805
Wyoming	-	-	-	-	303	-	287	590
Total	3,055	554	6,193	2,285	77,540	411	8,706	98,745

^a Total capacity whose primary energy source is landfill gas or MSW.

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

PV=Photovoltaic.

MSW=Municipal Solid Waste.

* =Less than 500 kilowatts.

Note: Revisions to biomass capacity removed tires from renewable waste energy. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

Table 1.24. Renewable Electric Power Sector Net Capacity by Energy Source and State, 2006 (Megawatts)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	-	-	-	-	3,271	-	-	3,271
Alaska	-	-	-	-	397	-	3	400
Arizona	4	-	3	-	2,720	9	-	2,736
Arkansas	5	4	-	-	1,389	-	-	1,397
California	263	49	436	2,032	10,077	402	2,255	15,514
Colorado	-	10	-	-	652	-	289	950
Connecticut	170	-	-	-	147	-	-	316
Delaware	7	-	-	-	-	-	-	7
District of Columbia	-	-	-	-	-	-	-	-
Florida	447	75	67	-	55	-	-	643
Georgia	2	-	-	-	2,020	-	-	2,022
Hawaii	-	46	-	31	18	-	43	138
Idaho	-	-	12	-	2,378	-	75	2,464
Illinois	111	13	-	-	32	-	105	261
Indiana	22	-	-	-	60	-	-	82
Iowa	11	-	-	-	131	-	921	1,064
Kansas	-	-	-	-	3	-	363	366
Kentucky	12	-	-	-	815	-	-	827
Louisiana	-	12	-	-	192	-	-	204
Maine	30	36	220	-	602	-	-	888
Maryland	118	-	-	-	566	-	-	684
Massachusetts	261	-	26	-	253	-	-	540
Michigan	83	-	158	-	253	-	2	496
Minnesota	123	-	79	-	147	-	827	1,176
Mississippi	-	-	-	-	-	-	-	-
Missouri	3	-	-	-	552	-	-	555
Montana	-	-	-	-	2,604	-	145	2,749
Nebraska	6	1	-	-	272	-	73	352
Nevada	-	-	-	188	1,047	-	-	1,236
New Hampshire	31	-	128	-	512	-	-	671
New Jersey	181	19	-	-	5	-	8	212
New Mexico	-	6	-	-	82	-	494	582
New York	280	-	37	-	4,292	-	370	4,979
North Carolina	14	-	80	-	1,794	-	-	1,889
North Dakota	-	-	-	-	443	-	164	607
Ohio	4	-	7	-	101	-	7	119
Oklahoma	-	-	-	-	851	-	594	1,446
Oregon	14	3	58	-	8,374	-	399	8,848
Pennsylvania	331	-	28	-	748	-	150	1,257
Rhode Island	24	-	-	-	4	-	-	28
South Carolina	20	-	-	-	1,344	-	-	1,364
South Dakota	-	-	-	-	1,516	-	43	1,559
Tennessee	5	2	-	-	2,429	-	29	2,465
Texas	42	-	-	-	681	-	2,738	3,461
Utah	1	-	-	23	255	-	-	279
Vermont	-	-	72	-	304	-	5	381
Virginia	95	-	80	-	669	-	-	843
Washington	35	4	136	-	21,148	-	821	22,145
West Virginia	-	-	-	-	163	-	66	229
Wisconsin	58	1	73	-	433	-	53	618
Wyoming	-	-	-	-	303	-	287	590
Total	2,812	282	1,699	2,274	77,102	411	11,329	95,909

^a Total capacity whose primary energy source is landfill gas or MSW.

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

PV=Photovoltaic.

MSW=Municipal Solid Waste.

* =Less than 500 kilowatts.

Note: Revisions to biomass capacity removed tires from renewable waste energy. The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

Table 1.25. Renewable Commercial and Industrial Sector Net Summer Capacity by Energy Source and State, 2006 (Megawatts)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	-	-	581	-	-	-	-	581
Alaska	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-
Arkansas	-	2	292	-	-	-	-	293
California	12	96	148	-	6	-	-	262
Colorado	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-
Florida	-	89	276	-	-	-	-	365
Georgia	2	44	450	-	7	-	-	504
Hawaii	60	3	-	-	5	-	-	68
Idaho	-	-	64	-	-	-	-	64
Illinois	-	3	-	-	1	-	-	4
Indiana	9	-	-	-	-	-	-	9
Iowa	-	3	-	-	-	-	-	3
Kansas	-	-	-	-	-	-	-	-
Kentucky	-	-	43	-	-	-	-	43
Louisiana	-	3	318	-	-	-	-	321
Maine	24	-	389	-	117	-	-	530
Maryland	7	-	2	-	-	-	-	9
Massachusetts	-	9	-	-	5	-	-	14
Michigan	67	-	52	-	4	-	-	122
Minnesota	4	-	49	-	29	-	-	82
Mississippi	-	-	229	-	-	-	-	229
Missouri	-	-	-	-	-	-	-	-
Montana	-	-	17	-	-	-	-	17
Nebraska	-	3	-	-	-	-	-	3
Nevada	-	-	-	-	-	-	-	-
New Hampshire	-	-	14	-	-	-	-	14
New Jersey	-	1	-	-	-	-	-	1
New Mexico	-	-	-	-	-	-	-	-
New York	33	-	-	-	15	-	-	48
North Carolina	-	-	244	-	160	-	-	403
North Dakota	-	10	-	-	-	-	-	10
Ohio	-	-	57	-	-	-	-	57
Oklahoma	16	-	63	-	-	-	-	78
Oregon	-	-	136	-	-	-	-	136
Pennsylvania	28	-	80	-	-	-	-	108
Rhode Island	-	-	-	-	-	-	-	-
South Carolina	10	-	220	-	1	-	-	231
Tennessee	-	-	147	-	209	-	-	356
Texas	-	16	130	-	-	-	-	145
Utah	3	-	-	-	-	-	-	3
Vermont	-	-	4	-	5	-	-	8
Virginia	76	-	330	-	2	-	-	408
Washington	-	-	190	-	8	-	-	198
West Virginia	-	-	-	-	101	-	-	101
Wisconsin	4	-	147	-	43	-	-	195
Wyoming	-	-	-	-	-	-	-	-
Total	354	280	4,673	-	719	-	-	6,025

^a Total capacity whose primary energy source is landfill gas or MSW.

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

PV=Photovoltaic.

MSW=Municipal Solid Waste.

* =Less than 500 kilowatts.

Note: Revisions to biomass capacity removed tires from renewable waste energy. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-860, "Annual Electric Generator Report."

Table 1.26. Total Renewable Net Summer Capacity by Energy Source and State, 2006 (Megawatts)

State	Biomass			Geothermal	Hydroelectric Conventional	Solar/PV	Wind	Total
	Waste		Wood and Derived Fuels ^c					
	Landfill Gas / MSW Biogenic ^a	Other Biomass ^b						
Alabama	-	-	581	-	3,271	-	-	3,852
Alaska	-	-	-	-	397	-	3	400
Arizona	4	-	3	-	2,720	9	-	2,736
Arkansas	5	6	292	-	1,389	-	-	1,691
California	275	145	584	2,032	10,083	402	2,255	15,776
Colorado	-	10	-	-	652	-	289	950
Connecticut	170	-	-	-	147	-	-	316
Delaware	7	-	-	-	-	-	-	7
District of Columbia	-	-	-	-	-	-	-	-
Florida	447	163	343	-	55	-	-	1,008
Georgia	5	44	450	-	2,027	-	-	2,526
Hawaii	60	49	-	31	24	-	43	206
Idaho	-	-	75	-	2,378	-	75	2,528
Illinois	111	15	-	-	33	-	105	264
Indiana	31	-	-	-	60	-	-	91
Iowa	11	3	-	-	131	-	921	1,067
Kansas	-	-	-	-	3	-	363	366
Kentucky	12	-	43	-	815	-	-	871
Louisiana	-	15	318	-	192	-	-	525
Maine	53	36	609	-	719	-	-	1,418
Maryland	126	-	2	-	566	-	-	693
Massachusetts	261	9	26	-	259	-	-	554
Michigan	149	-	210	-	257	-	2	618
Minnesota	127	-	129	-	175	-	827	1,259
Mississippi	-	-	229	-	-	-	-	229
Missouri	3	-	-	-	552	-	-	555
Montana	-	-	17	-	2,604	-	145	2,766
Nebraska	6	4	-	-	272	-	73	355
Nevada	-	-	-	188	1,047	-	-	1,236
New Hampshire	31	-	141	-	512	-	-	685
New Jersey	181	20	-	-	5	-	8	212
New Mexico	-	6	-	-	82	-	494	582
New York	313	-	37	-	4,307	-	370	5,027
North Carolina	14	-	324	-	1,954	-	-	2,292
North Dakota	-	10	-	-	443	-	164	617
Ohio	4	-	64	-	101	-	7	175
Oklahoma	16	-	63	-	851	-	594	1,524
Oregon	14	3	195	-	8,374	-	399	8,984
Pennsylvania	359	-	108	-	748	-	150	1,365
Rhode Island	24	-	-	-	4	-	-	28
South Carolina	29	-	220	-	1,345	-	-	1,594
South Dakota	-	-	-	-	1,516	-	43	1,559
Tennessee	5	2	147	-	2,638	-	29	2,821
Texas	42	16	130	-	681	-	2,738	3,607
Utah	4	-	-	23	255	-	-	282
Vermont	-	-	76	-	309	-	5	390
Virginia	170	-	410	-	671	-	-	1,251
Washington	35	4	326	-	21,156	-	821	22,343
West Virginia	-	-	-	-	264	-	66	330
Wisconsin	62	1	220	-	476	-	53	813
Wyoming	-	-	-	-	303	-	287	590
Total	3,166	561	6,372	2,274	77,821	411	11,329	101,934

^a Total capacity whose primary energy source is landfill gas or MSW.

^b Agriculture byproducts/crops, sludge waste and other biomass solids, liquids and gases.

^c Black liquor, and wood/woodwaste solids and liquids.

PV=Photovoltaic.

MSW=Municipal Solid Waste.

* =Less than 500 kilowatts.

Note: Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-860,"Annual Electric Generator Report."

**Table 1.27. Renewable Market Share of Net Generation by State, 2005 and 2006
(Thousand Kilowatthours)**

	2005			2006		
	Total State Generation	Percent Renewable	Percent NonHydro Renewable	Total State Generation	Percent Renewable	Percent NonHydro Renewable
Alabama	137,948,581	10.0	2.7	140,895,441	7.9	2.8
Alaska	6,576,659	22.3	0.1	6,674,197	18.5	0.1
Arizona	101,478,654	6.3	0.1	104,392,528	6.6	0.1
Arkansas	47,794,509	10.0	3.6	52,168,703	6.2	3.3
California	200,292,818	31.5	11.8	216,798,688	33.2	11.0
Colorado	49,616,694	4.4	1.6	50,698,353	5.3	1.8
Connecticut	33,549,747	3.6	2.3	34,681,736	3.8	2.2
Delaware	8,136,568	-	-	7,182,179	*	*
District of Columbia	226,042	-	-	81,467	-	-
Florida	220,256,412	2.1	2.0	223,751,621	2.1	2.0
Georgia	136,667,892	5.3	2.4	138,010,208	4.4	2.5
Hawaii	11,522,805	5.5	4.7	11,559,174	6.4	5.3
Idaho	10,824,984	84.2	5.3	13,386,085	89.2	5.2
Illinois	194,120,146	0.4	0.4	192,426,958	0.5	0.4
Indiana	130,371,573	0.3	0.1	130,489,788	0.5	0.2
Iowa	44,156,160	6.1	4.0	45,483,462	7.4	5.4
Kansas	45,862,696	0.9	0.9	45,523,736	2.2	2.2
Kentucky	97,822,419	3.4	0.4	98,792,014	3.1	0.5
Louisiana	92,616,878	3.8	2.9	90,921,829	4.1	3.3
Maine	18,843,978	43.3	21.6	16,816,173	49.1	23.6
Maryland	52,661,600	4.4	1.2	48,956,880	5.6	1.3
Massachusetts	47,515,443	4.8	2.7	45,597,775	6.1	2.8
Michigan	121,619,771	3.2	2.1	112,556,738	3.5	2.2
Minnesota	53,018,995	6.4	5.0	53,237,789	6.8	5.7
Mississippi	45,067,453	3.3	3.4	46,228,847	3.3	3.3
Missouri	90,828,230	1.2	*	91,686,343	0.2	*
Montana	27,938,778	34.5	0.2	28,243,536	37.7	1.9
Nebraska	31,464,734	3.2	0.4	31,669,969	3.8	1.0
Nevada	40,213,752	7.3	3.1	31,860,022	10.7	4.2
New Hampshire	24,470,013	11.2	3.9	22,063,695	10.3	3.4
New Jersey	60,549,583	1.5	1.4	60,700,139	1.6	1.5
New Mexico	35,135,642	2.7	2.3	37,265,625	4.0	3.4
New York	146,887,419	18.9	1.4	142,265,432	21.1	1.8
North Carolina	129,748,578	5.5	1.4	125,214,784	4.5	1.5
North Dakota	31,932,615	4.9	0.7	30,881,137	6.1	1.2
Ohio	156,976,323	0.5	0.3	155,434,075	0.7	0.3
Oklahoma	68,607,827	5.4	1.7	70,614,880	3.7	2.9
Oregon	49,325,003	66.0	3.3	53,340,695	74.5	3.5
Pennsylvania	218,091,125	2.0	1.1	218,811,595	2.4	1.1
Rhode Island	6,053,294	0.1	*	5,967,725	2.6	2.5
South Carolina	102,514,665	4.6	1.7	99,267,606	3.7	1.9
South Dakota	6,520,769	49.5	2.4	7,132,243	49.7	2.1
Tennessee	97,117,165	10.1	0.6	93,911,102	8.8	0.6
Texas	396,668,722	1.6	1.3	400,582,878	2.1	2.0
Utah	38,165,131	2.5	0.5	41,263,324	2.3	0.5
Vermont	5,716,755	28.5	7.4	7,084,344	27.8	6.4
Virginia	78,943,045	5.0	3.2	73,069,537	5.3	3.4
Washington	101,965,850	72.7	2.1	108,203,155	78.1	2.3
West Virginia	93,626,285	1.7	0.2	93,815,804	1.9	0.2
Wisconsin	61,824,664	4.9	2.1	61,639,843	4.9	2.2
Wyoming	45,567,307	3.3	1.6	45,400,370	3.5	1.7
Total	4,055,422,750	8.8	2.2	4,064,702,227	9.5	2.4

* = Less than .05 percent.

- = Not applicable.

Note: Revisions to biomass capacity removed tires from renewable waste energy. Dash indicates the state has no data to report for that energy source. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Table 1.28. Renewable Portfolio Standards and State Mandates by State, 2007

State	RPS or Mandate
Alabama	
Alaska	
Arizona	X
Arkansas	
California	X
Colorado	X
Connecticut	X
Delaware	X
District of Columbia	X
Florida ^a	X
Georgia	
Hawaii	X
Idaho	
Illinois	X
Indiana	
Iowa	X
Kansas	
Kentucky	
Louisiana	
Maine	X
Maryland	X
Massachusetts	X
Michigan ^a	X
Minnesota	X
Mississippi	
Missouri ^a	X
Montana	X
Nebraska	
Nevada	X
New Hampshire	X
New Jersey	X
New Mexico	X
New York	X
North Carolina	X
North Dakota	X
Ohio	
Oklahoma	
Oregon	X
Pennsylvania	X
Rhode Island	X
South Carolina	
South Dakota	
Tennessee	
Texas	X
Utah	
Vermont	X
Virginia	X
Washington	X
West Virginia	
Wisconsin	X
Wyoming	

^a In Florida, Michigan and Missouri the RPS is not statewide.

Note: In some states, including Illinois, Michigan, Missouri, North Dakota, Virginia and Vermont the renewable portfolio standard (RPS) is voluntary. Blank cell indicates there is no RPS or state mandate for that state.

Source: North Carolina Solar Center, Database of State Incentives for Renewable Energy (DSIRE) website: <http://www.dsireusa.org> (January 8, 2008).

Table 1.A1. Other Non-Renewable Energy Consumption by Energy Use Sector and Energy Source, 2002-2006 (Quadrillion Btu)

Sector and Source	2002	2003	2004	2005	2006
Total	0.266	0.280	0.245	0.234	0.236
Commercial	0.017	0.018	0.021	0.020	0.021
MSW Non-Biogenic ^a	0.016	0.018	0.021	0.020	0.020
Other Non-Renewable ^b	0.001	0.001	0.001	0.000	0.000
Industrial	0.106	0.121	0.086	0.091	0.091
MSW Non-Biogenic ^a	0.004	0.004	0.005	0.005	0.005
Other Non-Renewable ^b	0.103	0.117	0.081	0.086	0.086
Electric Power ^c	0.143	0.140	0.138	0.123	0.125
MSW Non-Biogenic ^a	0.124	0.113	0.109	0.107	0.109
Other Non-Renewable ^b	0.019	0.028	0.029	0.016	0.015

^a Includes glass, steel, aluminum, other nonferrous metals, plastic, rubber, other materials, and miscellaneous inorganic wastes.

^b Tires and other (nonspecified).

^c The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

*=Less than 500 billion Btu.

MSW=Municipal solid waste.

Note: Totals may not equal sum of components due to independent rounding. Details of EIA's analysis that revised MSW consumption are found in the Energy Information Administration (EIA) report, Methodology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy (Washington, DC, May 2007). After 2003 small amounts of other non-renewable energy consumption in the industrial sector for certain plants, including those that capture energy from exothermic chemical and manufacturing processes, are no longer included due to a change in EIA survey reporting requirements.

Sources: Analysis conducted by Energy Information Administration (EIA), Office of Coal, Nuclear, Electric, and Alternate Fuels and

**Table 1.A2. Other Non-Renewable Net Electricity Generation by Energy Use Sector and Energy Source, 2002-2006
(Thousand Kilowatthours)**

Sector and Source	2002	2003	2004	2005	2006
Total	13,526,909	14,044,507	14,483,429	12,468,282	13,977,436
Commercial	603,377	593,868	781,136	756,334	783,056
MSW Non-Biogenic ^a	513,855	586,572	773,846	749,250	751,407
Other Non-Renewable ^b	89,522	7,296	7,290	7,084	31,648
Industrial	3,832,069	4,843,169	5,138,985	4,750,563	6,049,257
MSW Non-Biogenic ^a	57,784	29,452	25,636	29,435	26,470
Other Non-Renewable ^b	3,774,285	4,813,717	5,113,349	4,721,128	6,022,787
Electric Power ^c	9,091,464	8,607,470	8,563,308	6,961,385	7,145,123
MSW Non-Biogenic ^a	6,215,295	6,179,847	5,871,342	5,770,023	5,882,212
Other Non-Renewable ^b	2,876,169	2,427,623	2,691,966	1,191,362	1,262,911

^a Includes glass, steel, aluminum, other nonferrous metals, plastic, rubber, other materials, and miscellaneous inorganic wastes.

^b Tires and other (nonspecified).

^c The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

*=Less than 500 billion Btu.

MSW=Municipal solid waste.

Note: Totals may not equal sum of components due to independent rounding. Details of EIA's analysis that revised MSW consumption are found in the Energy Information Administration (EIA) report, Methodology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy (Washington, DC, May 2007).

Sources: EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

Table 2.1. Annual Solar Thermal Collector Domestic Shipments, 1997-2006

Year	Solar Thermal Collectors^a (Thousand Square Feet)
1997	7,759
1998	7,396
1999	8,046
2000	7,857
2001	10,349
2002	11,004
2003	10,926
2004	13,301
2005	14,680
2006	19,532
Total	110,852

^a Total shipments minus export shipments.

Notes: Totals may not equal sum of components due to independent rounding. Total shipments include those made in or shipped to U.S. Territories.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.2. Annual Shipments of Solar Thermal Collectors, 1997-2006

Year	Number of Companies	Collector Shipments (Thousand Square Feet)		
		Total ^a	Imports	Export
1997	29	8,138	2,102	379
1998	28	7,756	2,206	360
1999	29	8,583	2,352	537
2000	26	8,354	2,201	496
2001	26	11,189	3,502	840
2002	27	11,663	3,068	659
2003	26	11,444	2,986	518
2004	24	14,114	3,723	813
2005	25	16,041	4,546	1,361
2006	44	20,744	4,244	1,211

^a Includes shipments of solar thermal collectors to the government, including some military, but excluding space applications.

Note: Total shipments as reported by respondents include all domestic and export shipments and may include imported collectors that subsequently were shipped to domestic or foreign customers.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

**Table 2.3. Annual Shipments of Solar Thermal Collectors by Type , 1997-2006
(Thousand Square Feet)**

Year	Low-Temperature		Medium-Temperature		High-Temperature Total Shipments ^b
	Total Shipments ^a	Average per Manufacturer	Total Shipments	Average per Manufacturer	
1997	7,524	579	606	29	7
1998	7,292	607	443	23	21
1999	8,152	627	427	21	4
2000	7,948	723	400	25	5
2001	10,919	1,092	268	16	2
2002	11,126	856	535	31	2
2003	10,877	906	560	33	7
2004	13,608	1,512	506	30	0
2005	15,224	1,522	702	41	115
2006	15,546	1,413	1,346	38	3,852

^a Includes shipments of solar thermal collectors to the government, including some military, but excluding space applications.

^b For high-temperature collectors, average annual shipments per manufacturer are not disclosed.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.4. Shipments of Solar Thermal Collectors Ranked by Origin and Destination, 2006

Origin/Destination	2006 Shipments	
	Thousand Square Feet	Percent of U.S. Total
Origin		
Top Five States	16,225	78
New Jersey	5,606	27
California	5,442	26
Nevada	3,845	19
Florida	1,041	5
Tennessee	290	1
Other Domestic	275	1
Imported	4,244	20
U.S. Total	20,744	100
Destination		
Top Five States	15,054	73
Florida	4,841	23
California	4,610	22
Nevada	4,215	20
Arizona	780	4
New York	607	3
Other Domestic	4,479	22
Exported	1,211	6
U.S. Total	20,744	100

Notes: Totals may not equal sum of components due to independent rounding. U.S. total includes territories.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.5. Shipments of Solar Thermal Collectors Ranked by Origin and Destination, 2005

Origin/Destination	2005 Shipments	
	Thousand Square Feet	Percent of U.S.Total
Origin		
Top Five States	11,328	71
New Jersey	5,130	32
California	4,961	31
Florida	933	6
Tennessee	190	1
Arizona	114	1
Other Domestic	166	1
Imported	4,546	28
U.S. Total	16,041	100
Destination		
Top Five States	11,299	70
Florida	5,408	34
California	4,137	26
Arizona	794	5
New York	499	3
Illinois	461	3
Other Domestic	3,381	21
Exported	1,361	8
U.S. Total	16,041	100

Notes: Totals may not equal sum of components due to independent rounding. U.S. total includes territories.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

**Table 2.6. Shipments of Solar Thermal Collectors by Destination, 2006
(Square Feet)**

Destination	Shipments
Alabama	55,330
Alaska	75
Arizona	780,175
Arkansas	66,359
California	4,609,807
Colorado	93,347
Connecticut	382,215
Delaware	1,203
District of Columbia	159
Florida	4,841,469
Georgia	50,750
Hawaii	434,650
Idaho	17,867
Illinois	521,528
Indiana	54,074
Iowa	21,152
Kansas	19,590
Kentucky	17,858
Louisiana	24,226
Maine	57,774
Maryland	26,557
Massachusetts	90,741
Michigan	260,001
Minnesota	37,929
Mississippi	560
Missouri	20,314
Montana	762
Nebraska	17,985
Nevada	4,215,471
New Hampshire	25,633
New Jersey	583,468
New Mexico	39,207
New York	606,613
North Carolina	171,552
North Dakota	3,394
Ohio	45,246
Oklahoma	13,305
Oregon	505,860
Pennsylvania	266,645
Puerto Rico	109,666
Rhode Island	16,413
South Carolina	2,729
South Dakota	1,504
Tennessee	2,921
Texas	51,559
Utah	8,460
Vermont	26,287
Virgin Islands of the U.S.	2,431
Virginia	240,857
Washington	5,491
West Virginia	14,529
Wisconsin	67,238
Wyoming	1,468
Shipments to United States/Territories	19,532,404
Exports	1,211,242
Total Shipments	20,743,645

Notes: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.7. Distribution of U.S. Solar Thermal Collector Exports by Country, 2006

Country	U.S. Export Shipments (Square Feet)	Percent of U.S. Exports
Asia		
Japan	5,000	0.41
Malaysia	2,715	0.22
United Arab Emirates	11,220	0.93
Total	18,935	1.56
Europe		
Belgium	21,577	1.78
Czech Republic	12,000	0.99
Denmark	3,000	0.25
France	148,541	12.26
Germany	75,000	6.19
Italy	15,891	1.31
Spain	64,000	5.28
Sweden	24,894	2.06
United Kingdom	8,090	0.67
Total	372,993	30.79
North & Central America		
Antigua and Barbuda	1,900	0.16
Aruba	217	0.02
Bahamas	3,108	0.26
Bermuda	80	0.01
British Virgin Islands	912	0.08
Canada	513,699	42.41
Cayman Islands	1,136	0.09
Costa Rica	8,416	0.69
Dominican Republic	1,778	0.15
Guatemala	11,144	0.92
Jamaica	620	0.05
Mexico	205,117	16.93
Netherlands Antilles	170	0.01
Nicaragua	40	*
Panama	64	0.01
St Lucia	140	0.01
Trinidad and Tobago	434	0.04
Total	748,975	61.84
Oceania & Australia		
Australia	66,953	5.53
Total	66,953	5.53
South America		
Bolivia	480	0.04
Chile	1,775	0.15
Ecuador	1,131	0.09
Total	3,386	0.28
Total	1,211,242	100.00

* = Less than 0.01 percent.

Notes: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.8. Distribution of Solar Thermal Collector Shipments, 2005 and 2006

Recipient	Shipments (Thousand Square Feet)	
	2005	2006
Wholesale Distribution	9,248	9,778
Retail Distributors	5,342	5,492
Exporters	571	599
Installers	633	825
End Users and Other ^a	248	4,050
Total	16,041	20,744

^a Other includes minimal shipments not explained on form EIA-63A.

Notes: Totals may not equal sum of components due to independent rounding. Total includes U.S. territories.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.9. Solar Thermal Collector Shipments by Type, Quantity, Revenue, and Average Price, 2005 and 2006

Type	2005			2006		
	Quantity (Thousand Square Feet)	Revenue (Thousand Dollars)	Average Price (Dollars per Square Foot)	Quantity (Thousand Square Feet)	Revenue (Thousand Dollars)	Average Price (Dollars per Square Foot)
Low-Temperature						
Liquid and Air	15,224	30,513	2.00	15,546	30,324	1.95
Medium/High Temperature	817	15,337	18.77	5,198	90,792	17.47
Medium						
Air	3	W	W	6	W	W
Liquid						
ICS/Thermosiphon	165	4,327	26.23	238	5,793	24.34
Flate Plate	530	8,161	15.38	1,043	16,613	15.93
Evacuated Tube	3	W	W	55	1,422	25.71
Concentrator				4	W	W
High						
Parabolic Dish and Trough	115	W	W	3,852	W	W
Total	16,041	45,850	2.86	20,744	121,116	5.84

ICS = Integral collector storage.

W = Data withheld to avoid disclosure of proprietary company data

Notes: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.10. Shipments of Solar Thermal Collectors by Market Sector, End Use, and Type, 2005 and 2006
(Thousand Square Feet)

Type	Low-Temperature	Medium-Temperature					High-Temperature	2006 Total	2005 Total
	Liquid/Air	Air	Liquid				Parabolic Dish/Trough		
	Metallic and Nonmetallic		ICS/Thermo- siphon	Flat-Plate (Pumped)	Evacuated Tube	Concentrator			
Market Sector									
Residential	13,906	5	225	944	42	0	0	15,123	14,681
Commercial	1,500	*	10	92	14	4	7	1,626	1,160
Industrial	40	0	2	0	0	0	0	42	31
Utility	0	0	0	0	0	0	3,845	3,845	114
Other ^a	100	0	1	7	0	0	0	107	56
Total	15,546	6	238	1,043	55	4	3,852	20,744	16,041
End use									
Pool Heating	15,225	0	0	135	2	0	0	15,362	15,041
Hot Water	10	0	238	854	34	0	0	1,136	640
Space Heating	290	5	0	30	3	2	0	330	228
Space Cooling	0	0	0	0	3	0	0	3	2
Combined Space and Water Heating	21	1	0	24	14	0	7	66	16
Process Heating	0	0	0	0	0	0	0	0	0
Electricity Generation	0	0	0	0	0	2	3,845	3,847	114
Other ^b	0	0	0	0	0	0	0	0	0
Total	15,546	6	238	1,043	55	4	3,852	20,744	16,041

^a Other market sector includes shipments of solar thermal collectors to sectors such as government, including the military but excluding space applications.

^b Other end use includes shipments of solar thermal collectors for other uses such as cooking, water pumping, water purification, desalinization, distillation, etc.

*=Less than 500 square feet.

ICS= Integral Collector Storage.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.11. Shipments of Complete Solar Thermal Collector Systems, 2005 and 2006

Shipment Information	2005	2006
Complete Collector Systems		
Shipped	51,265	79,903
Thousand Square Feet	5,748	6,587
Percent of Total Shipments	36	32
Number of Companies	18	29
Revenue of Systems (Thousand Dollars)	20,402	31,297

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.12. Number of Companies Expecting to Introduce New Solar Thermal Collector Products in 2007

New Product Type	Number of Companies
Low-Temperature Collectors	5
Medium-Temperature Collectors	14
High-Temperature Collectors	5
Noncollector Components	8

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.13. Percent of Solar Thermal Collectors Shipments by 10 Largest Companies, 1997-2006

Year	Company Rank	Shipments (Thousand Square Feet)	Percent of Total Shipments
1997	1-5	7,183	88
	6-10	731	9
1998	1-5	6,938	89
	6-10	613	8
1999	1-5	7,813	91
	6-10	563	7
2000	1-5	7,521	90
	6-10	567	7
2001	1-5	10,732	96
	6-10	325	3
2002	1-5	10,755	92
	6-10	670	6
2003	1-5	10,485	92
	6-10	700	6
2004	1-5	13,291	94
	6-10	664	5
2005	1-5	14,801	92
	6-10	934	6
2006	1-5	18,535	89
	6-10	1,484	7

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.14. Employment in the Solar Thermal Collector Industry, 1997-2006

Year	Person Years
1997	184
1998	207
1999	289
2000	284
2001	256
2002	356
2003	287
2004	317
2005	353
2006	1,069

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.15. Companies Involved in Solar Thermal Collector Activities by Type, 2005 and 2006

Type of Activity	2005	2006
Collector or System Design	22	37
Prototype Collector Development	11	19
Prototype System Development	11	19
Wholesale Distribution	23	38
Retail Distribution	11	20
Installation	9	19
Noncollector System Component Manufacture	10	19

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.16. Solar-Related Sales as a Percentage of Total Company Sales, 2005 and 2006

Percent of Total Sales	Number of Companies	
	2005	2006
90-100	16	27
50-89	6	7
10-49	0	4
Less than 10	3	6
Total	25	44

Source: Energy Information Administration, Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey."

Table 2.17. Annual Photovoltaic Domestic Shipments, 1997-2006

Year	Photovoltaic Cells and Modules^a (Peak Kilowatts)
1997	12,561
1998	15,069
1999	21,225
2000	19,838
2001	36,310
2002	45,313
2003	48,664
2004	78,346
2005	134,465
2006	206,511
Total	618,302

^a Total shipments minus export shipments.

Notes: Totals may not equal sum of components due to independent rounding. Total shipments include those made in or shipped to U.S. Territories.

Sources: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

**Table 2.18. Annual Shipments of Photovoltaic Cells and Modules, 2004-2006
(Peak Kilowatts)**

Item	2004	2005	2006
Cells	37,842	21,920	17,060
Modules	143,274	204,996	320,208
Total	181,116	226,916	337,268

Sources: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.19. Annual Shipments of Photovoltaic Cells and Modules, 1997-2006

Year	Number of Companies	Photovoltaic Cell and Modules Shipments ^a (Peak Kilowatts)		
		Total	Imports	Exports
1997	21	46,354	1,853	33,793
1998	21	50,562	1,931	35,493
1999	19	76,787	4,784	55,562
2000	21	88,221	8,821	68,382
2001	19	97,666	10,204	61,356
2002	19	112,090	7,297	66,778
2003	20	109,357	9,731	60,693
2004	19	181,116	47,703	102,770
2005	29	226,916	90,981	92,451
2006	41	337,268	173,977	130,757

^a Does not include shipments of cells and modules for space/satellite applications.

Note: Total shipments as reported by respondents include all domestic and export shipments and may include imported cells and modules that subsequently were shipped to domestic or foreign customers.

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.20. Distribution of Photovoltaic Cells and Modules, 2004-2006

Recipient	Shipments (Peak Kilowatts)		
	2004	2005	2006
Wholesale Distributers	106,400	130,086	126,101
Retail Distributers	5,140	2,362	7,086
Exporters	2,354	1,088	4,188
Installers	34,779	67,437	146,948
End-Users	1,029	3,142	3,092
Module Manufacturers	11,868	15,347	9,635
Other ^a	19,546	7,455	40,218
Total	181,116	226,916	337,268

^a Other includes categories not identified by reporting companies.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.21. Photovoltaic Cell and Module Shipments by Type, 2004-2006

Type	Shipments (Peak kilowatts)			Percent of Total		
	2004	2005	2006	2004	2005	2006
Crystalline Silicon						
Single-Crystal	94,899	71,901	85,627	52	32	25
Cast and Ribbon	64,239	101,065	147,892	35	45	44
Subtotal	159,138	172,965	233,518	88	76	69
Thin-Film	21,978	53,826	101,766	12	24	30
Concentrator	0	125	1,984	0	*	1
Other ^a	0	0	0	0	0	0
Total	181,116	226,916	337,268	100	100	100

^a Includes categories not identified by reporting companies.

* = Less than 0.5 percent.

Note: Data do not include shipments of cells and modules for space/satellite applications. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.22. Photovoltaic Cell and Module Shipment Revenues by Type, 2005 and 2006

Type	2005			2006		
	Revenue (Thousand Dollars)	Average Price (Dollars per Peak Watt)		Revenue (Thousand Dollars)	Average Price (Dollars per Peak Watt)	
		Modules	Cells		Modules	Cells
Crystalline Silicon						
Single-Crystal	227,751	3.48	2.20	339,859	4.09	2.09
Cast and Ribbon	318,690	3.20	2.02	529,176	3.66	2.39
Subtotal	546,440	3.30	2.17	869,035	3.82	2.28
Thin-Film Silicon	W	W	W	W	W	W
Concentrator Silicon	W	W	W	W	W	W
Other ^a	0	---	---	0	---	---
Total	701,718	3.19	2.17	1,155,002	3.50	2.03

^a Includes categories not identified by reporting companies.

W = Data withheld to avoid disclosure of proprietary company data.

---= Does not apply.

Notes: Data do not include shipments of cells and modules for space/satellite applications. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.23. Shipments of Photovoltaic Cells and Modules by Market Sector, End Use, and Type, 2005 and 2006 (Peak Kilowatts)

Sector and End Use	Crystalline Silicon ^a	Thin-Film Silicon	Concentrator Silicon	Other	2006 Total	2005 Total
Market						
Industrial	22,018	6,600	0	0	28,618	22,199
Residential	84,930	9,801	1,084	0	95,815	75,040
Commercial	97,949	82,603	300	0	180,852	89,459
Transportation	2,455	3	0	0	2,458	1,621
Utility	1,314	2,067	600	0	3,981	143
Government ^b	7,130	558	0	0	7,688	28,683
Other ^c	17,723	134	0	0	17,857	9,772
Total	233,518	101,766	1,984	0	337,268	226,916
End Use						
Electricity Generation						
Grid Interactive	186,894	86,319	984	0	274,197	168,474
Remote	14,360	2,643	1,000	0	18,003	24,958
Communication	6,767	121	0	0	6,888	8,666
Consumer Goods	1,170	2,860	0	0	4,030	5,787
Transportation	2,435	3	0	0	2,438	2,159
Water Pumping	2,093	0	0	0	2,093	1,343
Cells/Modules to OEM ^d	2,644	3,488	0	0	6,132	11,677
Health	0	0	0	0	0	
Other ^e	17,156	6,332	0	0	23,487	3,853
Total	233,518	101,766	1,984	0	337,268	226,916

^a Includes single-crystal and cast and ribbon types.

^b Includes Federal, State, local governments, excluding military.

^c Other includes shipments that are manufactured for private contractors for research.

^d Original equipment manufacturer.

^e Other includes shipments of photovoltaic cells and modules for other uses, such as cooking food, desalinization, distillation, etc.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.24. Export Shipments of Photovoltaic Cells and Modules by Type, 2005 and 2006 (Peak Kilowatts)

Item	Type							
	Crystalline		Thin-Film Silicon		Concentrator Silicon		Total	
	2005	2006	2005	2006	2005	2006	2005	2006
Cells	20,434	12,960	0	838	0	400	20,434	14,198
Modules	39,992	47,681	32,000	68,880	25	0	72,017	116,561
Totals	60,426	60,640	32,000	69,718	25	400	92,451	130,757

Notes: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.25. Destination of U.S. Photovoltaic Cell and Module Export Shipments by Country, 2006

Country	Peak Kilowatts	Percent of U.S. Exports
Africa		
Angola	0.5	*
Egypt	307.0	0.2
Kenya	172.0	0.1
Nigeria	5.5	*
South Africa	385.0	0.3
Tanzania	6.0	*
Total	876.0	0.7
Asia		
Afghanistan	83.0	0.1
China	4,403.4	3.4
Hong Kong	2,116.0	1.6
India	1,945.6	1.5
Indonesia	13.0	*
Israel	55.0	*
Malaysia	2.5	*
North Korea	42.0	*
Saudi Arabia	1.0	*
Singapore	2,348.8	1.8
South Korea	4,021.0	3.1
Taiwan	5.0	*
Thailand	45.0	*
United Arab Emirates	11.5	*
Total	15,092.8	11.5
Europe		
Austria	327.5	0.3
Belgium	1.0	*
Denmark	2.6	*
Finland	6.0	*
France	1,447.0	1.1
Germany	80,583.2	61.6
Ireland	27.6	*
Italy	1,475.4	1.1
Luxembourg	324.0	0.2
Netherlands	137.6	0.1
Norway	256.0	0.2
Portugal	6,605.0	5.1
Spain	15,241.5	11.7
Sweden	2,501.0	1.9
Switzerland	22.5	*
United Kingdom	185.6	0.1
Total	109,143.5	83.5
North & Central America		
Bahamas	1.0	*
Bermuda	1.0	*
Canada	1,536.1	1.2
Costa Rica	346.5	0.3
Dominican Republic	1.0	*
El Salvador	1.0	*
Grenada	32.0	*
Guadeloupe	31.0	*
Guatemala	101.0	0.1
Haiti	24.0	*
Honduras	111.0	0.1
Mexico	722.5	0.6
Nicaragua	50.0	*
Panama	85.0	0.1
Trinidad and Tobago	8.0	*
Total	3,051.1	2.3
Oceania & Australia		
Australia	1,562.0	1.2
French Polynesia	93.0	0.1
New Zealand	70.0	0.1
Total	1,725.0	1.3
South America		
Argentina	43.0	*

Table 2.25. Destination of U.S. Photovoltaic Cell and Module Export Shipments by Country, 2006 (Continued)

Country	Peak Kilowatts	Percent of U.S. Exports
Bolivia	89.0	0.1
Brazil	79.0	0.1
Chile	85.0	0.1
Colombia	226.0	0.2
Ecuador	1.0	*
Guyana	60.0	*
Peru	240.0	0.2
Uruguay	45.0	*
Venezuela	1.0	*
Total	869.0	0.7
Total U.S. Export	130,757.4	100.0

* = Value less than 0.05 percent.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.26. Shipments of Complete Photovoltaic Module Systems, 2004-2006

Shipment Information	2004	2005	2006
Complete Photovoltaic Module System Shipped	16,990	37,115	67,172
Peak Kilowatts	8,110	6,583	28,099
Percentage of Total Module Shipments	6	3	9
Revenue of Systems (Thousand Dollars)	39,459	43,029	192,928

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.27. Employment in the Photovoltaic Manufacturing Industry, 1997-2006

Year	Number of Companies	Number of Person-Years
1997	21	1,736
1998	21	1,988
1999	19	2,013
2000	21	1,913
2001	19	2,666
2002	19	2,696
2003	20	2,590
2004	19	2,916
2005	29	3,198
2006	41	4,028

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.28. Companies Expecting to Introduce New Photovoltaic Products in 2007

New Product Type	Number of Companies
Crystalline Silicon	
Single-Crystal Silicon Modules	6
Cast Silicon Modules	7
Ribbon Silicon Modules	1
Thin-Film	
Amorphous Silicon Modules	2
Other (Thin Film)	4
Other (Flat Plate)	1
Concentrators	4
Nonmodule System Components	1

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 2.29. Number of Companies Involved in Photovoltaic-Related Activities, 2005 and 2006

Type of Activity	Number of Companies	
	2005	2006
Cell Manufacturing	12	16
Module or Systems Design	23	26
Prototype Module Development	18	18
Prototype Systems Development	9	10
Wholesale Distribution	19	29
Retail Distribution	7	12
Installation	7	4
Noncollector System Component Manufacturing	3	5

Source: Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

**Table 3.1. Geothermal Heat Pump Shipments by Model Type, 2000-2006
(Number of Units)**

Model	2000	2001	2002	2003	2004	2005	2006
ARI-320	7,808	NA	6,445	10,306	9,130	9,411	10,968
ARI-325/330	26,219	NA	26,802	25,211	31,855	34,861	47,440
Other Non-ARI Rated	1,554	NA	3,892	922	2,821	3,558	5,274
Totals	35,581	NA	37,139	36,439	43,806	47,830	63,682

NA=Not Available. No survey was conducted for 2001.

Source: Energy Information Administration, Form EIA-902, "Annual Geothermal Heat Pump Manufacturers Survey."

**Table 3.2. Capacity of Geothermal Heat Pump Shipments by Model Type, 2000-2006
(Total Rated Capacity Tons)**

Model	2000	2001	2002	2003	2004	2005	2006
ARI-320	26,469	NA	16,756	29,238	23,764	28,064	31,198
ARI-325/330	130,132	NA	96,541	89,731	100,317	110,291	155,736
Other Non-ARI Rated	7,590	NA	12,000	5,469	20,220	22,047	58,669
Totals	164,191	NA	125,297	124,438	144,301	160,402	245,603

NA=Not Available. No survey was conducted for 2001.

Note: One ton of capacity is equal to 12,000 Btus per hour.

Source: Energy Information Administration, Form EIA-902, "Annual Geothermal Heat Pump Manufacturers Survey."

**Table 3.3. Average Cooling Efficiency for Geothermal Heat Pump Shipments, 2006
(Average EER)**

Model Type	2006
ARI-320	12.9
ARI-325/330	19.3
Other (Non-ARI Rated)	13.1

EER=Energy Efficiency Ratio

Note: One ton of capacity is equal to 12,000 Btus per hour. Efficiency is expressed as btus of output per watt-hours of input. The higher the EER the more efficient the unit is.

Source: Energy Information Administration, Form EIA-902, "Annual Geothermal Heat Pump Manufacturers Survey."

**Table 3.4. Average Heating Efficiency for Geothermal Heat Pump Shipments, 2006
(Average COP)**

Model Type	2006
ARI-320	4.4
ARI-325/330	3.9
Other (Non-ARI Rated)	3.4

COP=Coefficient of Performance

Note: One ton of capacity is equal to 12,000 Btus per hour. Efficiency is expressed as Btus of output per wathours of input. The higher the COP the more efficient the unit is.

Source: Energy Information Administration, Form EIA-902, "Annual Geothermal Heat Pump Manufacturers Survey."

**Table 3.5. Geothermal Heat Pump Shipments by Export, Census Region and Model Type, 2006
(Total Rated Capacity Tons)**

Destination	Model Type			Total
	ARI-320	ARI-325/330	Other Non-ARI Rated GHPs	
Exported	882	14,226	15,329	30,437
Midwest	1,449	70,549	12,686	84,684
Northeast	4,306	17,046	8,754	30,106
South	19,893	44,739	6,677	71,309
West	4,665	9,163	15,223	29,051
US Territories	3	13	0	16
Total	31,198	155,736	58,669	245,603

NA=Not Available

Note: The Midwest Census Region consists of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The Northeast Census Region consists of Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. The South Census Region consists of Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The West Census Region consists of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. "Export" in Table 3.5 and "Exporter" in Table 3.6 are different. "Export" refers to shipments outside of the country, while "Exporter" is the type of customer.

Source: Energy Information Administration, Form EIA-902, "Annual Geothermal Heat Pump Manufacturers Survey."

**Table 3.6. Geothermal Heat Pump Domestic Shipments by Customer Type and Model Type, 2006
(Total Rated Capacity Tons)**

Customer	Model Type			Total
	ARI-320	ARI-325/330	Other Non-ARI Rated GHPs	
Exporter	6	153	47	206
Wholesale Distributor	10,895	86,402	33,045	130,342
Retail Distributor	0	83	1,483	1,566
Installer	19,415	54,872	8,434	82,721
End-User	0	0	331	331
Total	30,316	141,510	43,340	215,166

NA=Not Available

Note: "Export" in Table 3.5 and "Exporter" in Table 3.6 are different. "Export" refers to shipments outside of the country, while "Exporter" is the type of customer.

Source: Energy Information Administration, Form EIA-902, "Annual Geothermal Heat Pump Manufacturers Survey."

**Table 3.7. Geothermal Heat Pump Domestic Shipments by Sector and Model Type, 2006
(Total Rated Capacity Tons)**

Destination	Model Type			Total
	ARI-320	ARI-325/330	Other Non-ARI Rated GHPs	
Residential	3,205	103,366	6,784	113,355
Commercial ^a	27,111	38,101	36,556	101,768
Industrial	-	43	-	43
Total	30,316	141,510	43,340	215,166

^a Including government.

Note: Dash indicates the sector has no shipments reported for that model type.

Source: Energy Information Administration, Form EIA-902, "Annual Geothermal Heat Pump Manufacturers Survey."

**Table 3.8. Geothermal Direct Use of Energy and Heat Pumps, 1990-2006
(Quadrillion Btu)**

Year	Direct Use	Heat Pumps	Total
1990	0.0048	0.0054	0.0102
1991	0.0050	0.0060	0.0110
1992	0.0051	0.0067	0.0118
1993	0.0053	0.0072	0.0125
1994	0.0056	0.0076	0.0132
1995	0.0058	0.0083	0.0141
1996	0.0059	0.0093	0.0152
1997	0.0061	0.0101	0.0162
1998	0.0063	0.0115	0.0178
1999	0.0079	0.0114	0.0193
2000	0.0084	0.0122	0.0206
2001	0.0090	0.0135	0.0225
2002	0.0090	0.0147	0.0237
2003	0.0086	0.0188	0.0274
2004	0.0086	0.0212	0.0298
2005	0.0088	0.0240	0.0328
2006	0.0091	0.0276	0.0367

**Note: Direct use includes applications such as: district heating, aquaculture pond and raceway heating, greenhouse heating and agricultural drying.
Source: John Lund, Oregon Institute of Technology, Geo-Heat Center (Klamath Falls, Oregon, March 2007).**

Table 4.1. Estimated U.S. Green Pricing Customers by State and Customer Class, 2005 and 2006

State	Electric Industry Participants 2006 ^a	Participating Customers			
		2006			2005
		Residential	Non-Residential	Total	Total
Alabama	4	157	6	163	975
Alaska	1	351	5	356	325
Arizona	3	1,894	39	1,933	5,896
Arkansas	-	-	-	-	-
California	11	45,557	1,970	47,527	40,436
Colorado	25	46,948	1,145	48,093	40,409
Connecticut	-	-	-	-	-
Delaware	6	1,676	892	2,568	-
District of Columbia	2	2,500	1,216	3,716	7,049
Florida	6	29,269	32	29,301	23,599
Georgia	19	5,846	137	5,983	3,795
Hawaii	3	4,416	50	4,466	4,279
Idaho	6	4,003	127	4,130	3,878
Illinois	7	2,763	7	2,770	1,227
Indiana	11	2,014	25	2,039	1,427
Iowa	47	7,801	761	8,562	8,050
Kansas	-	-	-	-	-
Kentucky	10	873	16	889	809
Louisiana	-	-	-	-	-
Maine	2	1,939	207	2,146	2,019
Maryland	2	30,712	6,336	37,048	32,727
Massachusetts	3	5,448	207	5,655	4,709
Michigan	9	7,833	159	7,992	2,014
Minnesota	99	31,838	504	32,342	24,688
Mississippi	1	3	0	3	3
Missouri	14	453	6	459	451
Montana	7	451	9	460	400
Nebraska	4	4,825	62	4,887	3,768
Nevada	3	379	0	379	384
New Hampshire	-	-	-	-	-
New Jersey	4	96	267	363	1,692
New Mexico	11	14,225	1,352	15,577	9,852
New York	9	21,604	827	22,431	6,577
North Carolina	22	9,124	356	9,480	7,887
North Dakota	12	5,824	22	5,846	6,857
Ohio	3	250	2	252	402,433
Oklahoma	9	10,657	635	11,292	10,754
Oregon	13	78,648	2,085	80,733	63,755
Pennsylvania	4	36,520	835	37,355	29,758
Rhode Island	2	4,410	106	4,516	3,477
South Carolina	13	3,229	306	3,535	2,455
South Dakota	7	620	20	640	715
Tennessee	-	-	-	-	-
Texas	9	88,670	12,280	100,950	87,224
Utah	7	19,716	472	20,188	16,713
Vermont	2	4,297	240	4,537	2,095
Virginia	2	2,661	17	2,678	3,009
Washington	25	35,145	841	35,986	31,351
West Virginia	-	-	-	-	-
Wisconsin	57	30,037	1,298	31,335	39,701
Wyoming	7	3,531	75	3,606	3,150
Total	484	609,213	35,954	645,167	942,772

^a Includes entities with green pricing programs in more than one state.

Note: Non-residential may include some customers for whom no customer class is specified. Dash indicates no data was reported for the state. Totals may not equal the sum of the components due to independent rounding.

Source: Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

Table 4.2. Estimated U.S. Net Metering Customers by State and Customer Class, 2005 and 2006

State	Electric Industry Participants 2006 ^a	Participating Customers			
		2006			2005
		Residential	Non-Residential	Total	Total
Alabama	-	-	-	-	13
Alaska	-	-	-	-	-
Arizona	4	185	3	188	152
Arkansas	2	3	1	4	5
California	19	24,160	1,972	26,132	17,427
Colorado	17	380	25	405	145
Connecticut	2	165	16	181	75
Delaware	1	40	10	50	20
District of Columbia	1	1	1	2	-
Florida	5	41	7	48	29
Georgia	1	1	0	1	1
Hawaii	4	184	23	207	98
Idaho	4	28	6	34	21
Illinois	4	4	7	11	8
Indiana	3	11	9	20	16
Iowa	7	10	7	17	16
Kansas	5	15	4	19	11
Kentucky	3	3	2	5	3
Louisiana	-	-	-	-	-
Maine	1	3	0	3	8
Maryland	5	13	0	13	9
Massachusetts	5	454	104	558	246
Michigan	5	9	4	13	7
Minnesota	26	310	19	329	193
Mississippi	-	-	-	-	-
Missouri	4	4	2	6	5
Montana	2	41	5	46	253
Nebraska	-	-	-	-	-
Nevada	2	213	23	236	188
New Hampshire	4	69	28	97	93
New Jersey	5	1,789	203	1,992	604
New Mexico	7	22	2	24	16
New York	5	1,088	119	1,207	130
North Carolina	-	-	-	-	-
North Dakota	2	1	1	2	4
Ohio	8	36	16	52	31
Oklahoma	4	299	153	452	30
Oregon	14	463	77	540	341
Pennsylvania	6	145	29	174	134
Rhode Island	2	81	21	102	81
South Carolina	-	-	-	-	-
South Dakota	-	-	-	-	-
Tennessee	-	-	-	-	-
Texas	9	375	56	431	163
Utah	3	104	7	111	30
Vermont	5	200	32	232	164
Virginia	11	58	2	60	28
Washington	13	124	34	158	96
West Virginia	1	-	-	1	1
Wisconsin	12	169	110	279	240
Wyoming	7	22	5	27	11
Total	232	31,323	3,146	34,469	21,146

^a Includes entities with net metering programs in more than one state.

Note: Non-residential may include some customers for whom no customer class is specified. Dash indicates no data was reported for the state. Totals may not equal the sum of the components due to independent rounding.

Source: Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."