Table 12.2 – Number of Home Electricity Needs Met Calculation

Conversion Formula: Step 1 Step 2 Capacity (A) x Capacity Factor (B) x Annual Hours (C) = Annual Electricity Generation (D) Annual Electricity Generation (D) / Average Consumption (E) = Number of Households (F)

Technology	<u>Wind</u>	<u>Geothermal</u>	Biomass	<u>Hydropower</u>	<u>PV</u>	<u>Solar Thermal</u>
(A) Capacity (kW)	11,558,205	2,232,495	6,594,096	78,312,583	280,355	388,893
(B) Capacity Factor (%)	36.0%	90.0%	80.0%	44.2%	22.5%	24.4%
(C) Annual Hours	8,760	8,760	8,760	8,760	8,760	8,760
(D) Annual Electricity Generation (kWh)	36,449,954,187	17,600,991,128	46,211,427,727	303,176,455,525	552,579,314	831,235,472
(E) Average Annual Household						
Electricity Consumption (kWh)	11,586	11,586	11,586	11,586	11,586	11,586
(F) Number of Households	3,148,804	1,520,497	3,992,068	26,190,515	47,736	71,808

Sources: Capacity: Projected values for the year 2006 from EIA, *Annual Energy Outlook 2006*, DOE/EIA-0383 (2006) (Washington, D.C., February 2006), Table A16, 2006.

Capacity factors: Hydropower calculated from EIA, *Annual Energy Outlook 2005*, DOE/EIA-0383 (2005) (Washington, D.C., February 2005), Table A16. All others based on DOE, *Renewable Energy Technology Characterizations*, EPRI TR-109496, 1997, and program data. Household electricity consumption: Calculated from EIA, *Annual Energy Outlook 2006*, DOE/EIA-0383 (2006) (Washington, D.C., February), Tables A4 and A8, 2006.

Notes:

For illustrative purposes only.

Capacity values exclude combined-heat-and-power (CHP) data, but include end-use sector (industrial and commercial) non-CHP data.