

Impacts of a 15-Percent Renewable Portfolio Standard

Table 2. Summary Results

	2005	2015 Reference	2015 RPS	2030 Reference	2030 RPS
Net Generation by Fuel Type (billion kilowatthours)					
Coal	2,015	2,295	2,240	3,330	3,086
Petroleum	122	103	101	107	108
Natural Gas	752	1018	1008	932	914
Nuclear Power	780	812	809	896	856
Conventional Hydropower	265	306	306	308	306
Geothermal	15	18	20	23	25
Municipal Waste	23	27	32	28	33
Wood and Other Biomass	38	79	138	102	318
Solar	1	3	3	7	38
Wind	15	51	55	52	76
Other	13	8	8	14	12
Total Generation	4,038	4,721	4,719	5,797	5,773
Capacity (gigawatts)					
Coal Steam	311	323	320	450	431
Other Fossil Steam	121	90	91	87	87
Combined Cycle	177	196	194	212	205
Combustion Turbine/Diesel	133	121	120	155	147
Nuclear	100	102	102	113	107
Conventional Hydropower	81	81	81	81	81
Geothermal	2	3	3	3	3
Municipal Waste	4	4	5	4	5
Wood and Other Biomass	7	8	10	11	26
Solar	1	1	1	4	20
Wind	10	18	19	18	25
Other	43	51	51	83	81
Total	988	997	997	1220	1,219
Prices (2005 cents per kilowatthour)					
Credit Price	N/A	-	0.39	-	1.84
Electricity Price	8.10	7.69	7.71	8.05	8.21
Credits (percent of sales)					
Credits Required	N/A	-	5.7	-	12.1
Credits Achieved	N/A	-	5.7	-	10.8
Generation Achieved	2.6	3.9	5.6	3.9	9.4
Power Sector Emissions (million tons per year, except as noted)					
Nitrogen Oxides	3.6	2.2	2.2	2.3	2.2
Sulfur Dioxide	10.2	4.5	4.5	3.6	3.6
Mercury (tons per year)	51.3	24.6	25.3	15.5	15.6
Carbon Dioxide (million metric tons per year)	2,375	2,677	2,624	3,338	3,116

Source: National Energy Modeling System runs AEO2007.D112106A and BING15S.060707B