

Table B8. Electricity Supply, Disposition, and Prices
(Billion Kilowatthours, Unless Otherwise Noted)

Supply, Disposition, and Prices	1996	Projections						
		2005						
		Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below
Generation by Fuel Type								
Electric Generators¹								
Coal	1758	2019	1949	1820	1681	1597	1556	1504
Petroleum	80	42	41	37	36	34	32	35
Natural Gas	288	612	671	714	777	807	841	863
Nuclear Power	675	651	683	683	683	698	698	698
Pumped Storage	-2	-3	-3	-3	-3	-3	-3	-3
Renewable Sources ²	392	369	379	385	385	392	396	401
Total	3191	3690	3720	3637	3559	3525	3519	3498
Non-Utility Generation for Own Use	6	6	6	6	6	6	6	6
Cogenerators³								
Coal	51	51	51	51	50	50	50	50
Petroleum	6	6	6	6	6	6	6	6
Natural Gas	196	214	214	218	222	224	223	224
Other Gaseous Fuels ⁴	7	7	7	7	7	7	7	7
Renewable Sources ²	42	47	47	47	46	46	46	46
Other ⁵	3	3	3	3	3	3	3	3
Total	305	329	329	332	335	337	337	337
Sales to Utilities	156	161	161	161	162	162	162	162
Generation for Own Use	149	168	168	171	174	175	175	175
Net Imports⁶	38	67	21	21	21	21	21	21
Electricity Sales by Sector								
Residential	1079	1271	1265	1235	1210	1201	1199	1193
Commercial	988	1147	1143	1112	1084	1071	1071	1064
Industrial	1014	1188	1183	1167	1149	1138	1136	1129
Transportation	17	24	24	24	24	24	24	24
Total	3098	3630	3615	3538	3467	3435	3430	3410
End-Use Prices (1996 cents per kilowatthour)⁷								
Residential	8.3	7.4	7.5	8.4	9.1	9.4	9.5	9.6
Commercial	7.5	6.6	6.7	7.6	8.3	8.6	8.7	8.8
Industrial	4.6	3.9	4.0	4.6	5.0	5.2	5.2	5.3
Transportation	5.2	4.6	4.6	4.7	4.8	4.8	4.8	4.8
All Sectors Average	6.8	6.0	6.1	6.9	7.4	7.7	7.8	7.9

Table B8. Electricity Supply, Disposition, and Prices (Continued)
(Billion Kilowatthours, Unless Otherwise Noted)

Projections													
2010							2020						
Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below	Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below
2075	1709	1273	977	612	510	385	2186	1297	797	508	146	79	27
36	30	25	25	26	35	40	29	19	27	64	99	75	40
868	1050	1309	1518	1664	1683	1708	1362	1858	2098	2243	2283	2249	2138
578	626	646	654	689	689	693	356	474	528	552	625	642	694
-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
373	389	404	409	435	446	466	383	437	548	571	692	766	857
3928	3801	3654	3581	3422	3360	3288	4312	4081	3994	3935	3843	3809	3752
6	5	5	5	5	5	5	6	5	5	5	5	5	5
51	50	50	50	49	49	49	51	50	49	49	49	49	49
6	6	6	6	6	6	6	6	6	7	7	8	7	7
222	227	230	233	238	239	240	217	222	225	228	231	232	234
7	7	7	7	7	7	7	7	7	7	7	7	7	7
50	50	49	49	48	48	48	51	53	53	53	53	53	53
3	3	3	3	3	3	3	3	3	3	3	3	3	3
339	343	346	349	352	353	353	336	341	345	348	351	351	353
163	163	163	164	164	165	165	162	163	163	164	165	165	165
177	180	183	185	188	188	189	174	178	181	184	187	187	188
64	10	10	10	10	10	10	59	4	4	4	4	4	4
1354	1296	1252	1228	1188	1168	1150	1552	1456	1431	1414	1388	1380	1363
1221	1161	1108	1078	1019	993	966	1328	1227	1197	1177	1142	1127	1104
1260	1210	1171	1157	1109	1097	1075	1323	1253	1227	1210	1185	1176	1165
30	30	29	29	28	28	27	37	36	36	36	35	34	34
3865	3696	3561	3492	3344	3286	3219	4240	3972	3892	3837	3750	3718	3665
7.3	8.7	9.9	10.7	12.1	12.7	13.3	6.9	9.0	9.6	10.0	10.7	10.9	11.4
6.4	7.9	9.1	9.8	11.2	11.8	12.4	6.0	8.1	8.6	8.9	9.6	9.8	10.3
3.8	4.7	5.4	5.8	6.7	7.0	7.3	3.5	4.7	5.0	5.2	5.6	5.8	6.0
4.5	4.7	4.8	5.0	5.3	5.4	5.4	4.2	4.4	4.4	4.5	4.6	4.5	4.5
5.9	7.1	8.2	8.8	10.0	10.5	11.0	5.6	7.3	7.8	8.1	8.7	8.9	9.3

¹Includes grid-connected generation at all utilities and nonutilities except for cogenerators. Includes small power producers, exempt wholesale generators, and generators at industrial and commercial facilities which provide electricity for on-site use and for sales to utilities.

²Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, landfill gas, other biomass, solar, and wind power.

³Cogenerators produce electricity and other useful thermal energy. Includes sales to utilities and generation for own use.

⁴Other gaseous fuels include refinery and still gas.

⁵Other includes hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

⁶In 1996 approximately two-thirds of the U.S. electricity imports were provided by renewable sources (hydroelectricity); EIA does not project future proportions.

⁷Prices represent average revenue per kilowatthour.

Kwh = kilowatthour.

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

Sources: 1996 commercial and transportation sales derived from: Total transportation plus commercial sales come from Energy Information Administration (EIA), *State Energy Data Report 1994*. Online. <ftp://ftp.eia.doe.gov/pub/state.data/021494.pdf> (August 26, 1997), but individual sectors do not match because sales taken from commercial and placed in transportation, according to Oak Ridge National Laboratories, *Transportation Energy Data Book 16* (July 1996) which indicates the transportation value should be higher. 1996 generation by electric utilities, nonutilities, and cogenerators, net electricity imports, residential sales, and industrial sales: EIA, *Annual Energy Review 1996*, DOE/EIA-0384(96) (Washington, DC, July 1997). 1996 residential electricity prices derived from EIA, *Short Term Energy Outlook, August 1997*, Online. <http://www.eia.doe.gov/emeu/teo/pub/upd/aug97/index.html> (August 21, 1997). **1996 electricity prices for commercial, industrial, and transportation; price components; and projections:** EIA, AEO98 National Energy Modeling System runs KYBASE.D080398A, FD24ABV.D080398B, FD1998.D080398B, FD09ABV.D080398B, FD1990.D080398B, FD03BLW.D080398B, and FD07BLW.D080398B.

Table B9. Electricity Generating Capability
(Thousand Megawatts)

Net Summer Capability ¹	1996	Projections						
		2005						
		Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below
Electric Generators²								
Capability								
Coal Steam	303.7	305.3	302.1	302.1	302.1	302.0	301.9	301.9
Other Fossil Steam ³	136.6	128.2	126.0	125.6	125.4	125.4	126.1	124.4
Combined Cycle	15.2	50.7	61.6	66.0	74.7	72.6	70.8	78.5
Combustion Turbine/Diesel	61.6	123.9	115.6	105.7	99.0	99.2	99.3	96.2
Nuclear Power	100.8	89.6	94.1	94.1	94.1	96.1	96.1	96.1
Pumped Storage	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Renewable Sources ⁴	87.8	91.1	91.3	92.5	93.1	94.8	95.7	97.0
Total	725.5	808.8	810.5	805.9	808.2	810.0	809.8	814.0
Cumulative Planned Additions⁵								
Coal Steam	2.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Other Fossil Steam ³	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Combined Cycle	2.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Combustion Turbine/Diesel	3.8	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Nuclear Power	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Pumped Storage	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Renewable Sources ⁴	0.7	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Total	11.1	16.3	16.3	16.3	16.3	16.3	16.3	16.3
Cumulative Unplanned Additions⁵								
Coal Steam	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0
Other Fossil Steam ³	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combined Cycle	0.0	34.2	45.1	49.5	58.2	56.1	54.3	62.0
Combustion Turbine/Diesel	5.7	68.4	59.6	49.7	43.3	43.3	43.7	40.4
Nuclear Power	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pumped Storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Renewable Sources ⁴	0.8	1.4	1.6	2.9	3.4	5.1	6.0	7.3
Total	6.6	107.1	106.2	102.1	104.9	104.5	104.1	109.7
Cumulative Total Additions	17.7	123.4	122.5	118.4	121.2	120.8	120.4	126.0
Cumulative Retirements⁶	15.2	40.1	37.5	38.0	38.5	36.4	36.1	37.5

Table B9. Electricity Generating Capability (Continued)
(Thousand Megawatts)

Projections													
2010							2020						
Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below	Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below
307.8	299.9	288.5	275.8	268.1	266.4	258.9	313.6	270.5	232.2	197.5	136.3	100.1	77.8
123.1	104.2	87.0	92.7	105.4	109.8	108.0	109.3	73.7	53.6	49.7	53.1	70.2	71.1
90.1	117.1	157.6	186.7	191.4	185.9	191.3	182.9	244.3	288.1	318.0	336.7	334.0	321.4
152.1	121.8	106.0	100.1	102.5	103.5	97.9	186.6	137.4	116.7	109.3	113.9	118.1	116.9
76.0	83.2	86.6	88.8	94.1	94.1	95.4	47.9	62.9	71.1	73.8	84.1	86.4	93.4
19.5	19.2	19.2	19.5	19.5	19.5	19.9	19.2	19.2	19.2	19.5	19.5	19.5	19.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91.8	93.7	98.0	100.1	106.1	108.2	114.9	93.6	107.7	132.7	140.3	161.7	172.7	191.0
860.5	839.2	843.0	863.7	887.2	887.3	886.2	953.1	915.7	913.5	908.2	905.4	901.0	891.1
2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
5.8	0.0	0.0	0.0	0.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73.4	100.3	141.1	169.9	174.7	169.1	174.5	166.2	227.8	271.5	301.5	320.2	317.2	305.1
97.9	67.3	51.5	45.6	47.8	48.5	43.4	132.4	83.2	62.5	55.2	59.5	64.0	62.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.2	4.1	8.4	10.5	16.5	18.6	25.2	4.5	18.5	43.5	51.1	72.6	83.6	101.8
179.2	171.8	201.0	226.0	239.0	236.2	243.1	317.1	329.5	377.6	407.8	452.2	464.8	469.6
195.8	188.4	217.7	242.7	255.7	252.9	259.8	333.8	346.1	394.2	424.5	468.9	481.5	486.3
60.9	73.7	99.2	104.5	94.0	91.1	99.1	106.3	155.0	205.3	241.8	288.1	305.6	320.2

Table B9. Electricity Generating Capability (Continued)
(Thousand Megawatts)

Net Summer Capability ¹	1996	Projections						
		2005						
		Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below
Cogenerators⁷								
Capability								
Coal	9.2	9.9	9.9	9.9	9.9	9.8	9.8	9.8
Petroleum	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Natural Gas	31.4	34.9	35.0	35.4	36.0	36.3	36.2	36.2
Other Gaseous Fuels	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Renewable Sources ⁴	5.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	48.8	54.2	54.2	54.6	55.0	55.3	55.2	55.3
Cumulative Additions⁵	18.2	23.6	23.6	23.9	24.4	24.7	24.6	24.6

Table B9. Electricity Generating Capability (Continued)
(Thousand Megawatts)

Projections													
2010							2020						
Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below	Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below
10.0	10.0	9.9	9.9	9.8	9.8	9.8	10.0	10.0	10.0	10.0	9.9	9.9	9.9
1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
36.0	36.6	37.1	37.5	38.2	38.3	38.4	35.4	36.1	36.6	37.0	37.6	37.7	37.8
1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
7.1	7.1	7.1	7.1	6.9	6.9	6.9	7.3	7.4	7.4	7.4	7.4	7.4	7.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55.6	56.1	56.6	56.9	57.4	57.5	57.5	55.2	56.0	56.5	56.9	57.4	57.4	57.6
24.9	25.5	25.9	26.3	26.7	26.8	26.9	24.6	25.4	25.8	26.2	26.7	26.8	27.0

¹Net summer capability is the steady hourly output that generating equipment is expected to supply to system load (exclusive of auxiliary power), as demonstrated by tests during summer peak demand.

²Includes grid-connected utilities and nonutilities except for cogenerators. Includes small power producers, exempt wholesale generators, and generators at industrial and commercial facilities which produce electricity for on-site use and sales to utilities.

³Includes oil-, gas-, and dual-fired capability.

⁴Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, landfill gas, other biomass, solar and wind power.

⁵Cumulative additions after December 31, 1995.

⁶Cumulative total retirements from 1990.

⁷Nameplate capacity is reported for nonutilities on Form EIA-867, "Annual Power Producer Report." Nameplate capacity is designated by the manufacturer. The nameplate capacity has been converted to the net summer capability based on historic relationships.

Notes: Totals may not equal sum of components due to independent rounding. Net summer capability has been estimated for nonutility generators for AEO98. Net summer capacity is used to be consistent with electric utility capacity estimates. Data for electric utility capacity are the most recent data available as of August 25, 1997. Therefore, capacity estimates may differ from other Energy Information Administration sources.

Sources: 1996 net summer capability at electric utilities and planned additions: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report." Net summer capability for nonutilities and cogeneration in 1996 and planned additions estimated based on EIA, Form EIA-867, "Annual Nonutility Power Producer Report." Projections: EIA, AEO98 National Energy Modeling System runs KYBASE.D080398A, FD24ABV.D080398B, FD1998.D080398B, FD09ABV.D080398B, FD1990.D080398B, FD03BLW.D080398B, and FD07BLW.D080398B.

Table B10. Electricity Trade
(Billion Kilowatthours, Unless Otherwise Noted)

Electricity Trade	1996	Projections						
		2005						
		Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below
Interregional Electricity Trade								
Gross Domestic Firm Power Sales	173.4	139.2	139.2	139.2	139.2	139.2	139.2	139.2
Gross Domestic Economy Sales	54.7	66.3	77.5	58.3	49.8	46.7	50.5	51.8
Gross Domestic Trade	228.1	205.5	216.7	197.5	189.0	185.9	189.7	191.0
International Electricity Trade								
Gross Domestic Firm Power Sales (million 1996 dollars)	8050.2	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9
Gross Domestic Economy Sales (million 1996 dollars)	1283.9	1551.5	1801.0	1919.6	1914.1	1889.6	2125.6	2204.0
Gross Domestic Sales (million 1996 dollars)	9334.1	8014.3	8263.9	8382.5	8377.0	8352.5	8588.4	8666.9
Firm Power Imports From Canada and Mexico ¹	26.1	51.4	5.6	5.6	5.6	5.6	5.6	5.6
Economy Imports From Canada and Mexico ¹	20.7	35.8	35.8	35.9	35.9	35.9	35.8	35.8
Gross Imports From Canada and Mexico¹	46.8	87.2	41.5	41.5	41.5	41.5	41.4	41.5
Firm Power Exports To Canada and Mexico	2.8	13.4	13.4	13.4	13.4	13.4	13.4	13.4
Economy Exports To Canada and Mexico	6.4	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Gross Exports To Canada and Mexico	9.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3

Table B10. Electricity Trade (Continued)
(Billion Kilowatthours, Unless Otherwise Noted)

Projections													
2010							2020						
Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below	Reference Case	24 Percent Above	14 Percent Above	9 Percent Above	1990 Level	3 Percent Below	7 Percent Below
139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2
66.2	54.8	39.6	27.2	29.7	27.7	39.6	81.5	63.3	52.0	44.2	51.4	67.0	64.5
205.4	194.0	178.8	166.4	168.9	167.0	178.8	220.7	202.5	191.3	183.4	190.6	206.2	203.7
6462.9	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9	6462.9
1567.0	1918.0	1884.0	1467.6	2017.4	2071.5	3356.4	1831.8	2478.3	2210.6	2013.1	2640.1	3602.1	3901.1
8029.9	8380.9	8346.8	7930.5	8480.3	8534.4	9819.3	8294.7	8941.2	8673.4	8475.9	9103.0	10065.0	10364.0
51.4	5.6	5.6	5.6	5.6	5.6	5.6	50.3	5.6	5.6	5.6	5.6	5.6	5.6
33.4	25.5	25.5	25.5	25.1	25.2	25.2	30.1	19.6	19.6	19.6	19.6	19.6	19.6
84.8	31.1	31.1	31.1	30.7	30.8	30.8	80.4	25.2	25.2	25.2	25.2	25.2	25.2
13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0

¹Historically electric imports were primarily from renewable resources, principally hydroelectric.

Note: Totals may not equal sum of components due to independent rounding. Firm Power Sales are capacity sales, meaning the delivery of the power is scheduled as part of the normal operating conditions of the affected electric systems. Economy Sales are subject to curtailment or cessation of delivery by the supplier in accordance with prior agreements or under specified conditions.

Sources: 1996 interregional electricity trade data: Energy Information Administration (EIA), Bulk Power Data System. 1996 international electricity trade data: DOE Form FE-718R, "Annual Report of International Electrical Export/Import Data." Firm/economy share: National Energy Board, *Annual Report 1993*. Planned interregional and international firm power sales: DOE Form IE-411, "Coordinated Bulk Power Supply Program Report," April 1995. Projections: EIA, AEO98 National Energy Modeling System runs KYBASE.D080398A, FD24ABV.D080398B, FD1998.D080398B, FD09ABV.D080398B, FD1990.D080398B, FD03BLW.D080398B, and FD07BLW.D080398B.