

**Table 60. Electric Power Projections for Electricity Market Module Region East Central Area Reliability Coordination Agreement**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	84.31	84.27	84.27	84.26	82.93	82.93	82.93	82.93	82.93	82.93	82.57	82.57	82.57
Other Fossil Steam 2/	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	0.95	0.16	0.16
Combined Cycle	5.77	10.54	11.64	11.64	12.36	12.36	12.36	12.36	12.36	12.36	12.19	12.19	12.19
Combustion Turbine/Diesel	18.70	19.24	19.93	20.17	20.17	20.15	20.12	20.12	20.12	20.12	19.82	19.81	20.03
Nuclear Power	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69
Pumped Storage/Other 3/	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	1.62	1.74	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capacity	125.36	130.76	132.55	132.78	132.17	132.14	132.11	132.11	132.11	132.11	128.45	127.65	127.87
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	1.09	1.09	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81
Combustion Turbine/Diesel	0.00	0.00	0.68	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	1.79	2.12	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
Cumulative Total Additions	0.00	0.00	1.79	2.12	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	3.06
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.01	1.34	1.34	1.34	1.34	1.34	1.34	1.70	1.70	1.70
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.85	3.63	3.63
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.16
Combustion Turbine/Diesel	0.00	0.00	0.00	0.09	0.09	0.11	0.14	0.14	0.14	0.14	0.44	0.45	0.45
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.10	1.43	1.46	1.49	1.49	1.49	1.49	5.15	5.95	5.95
End Use Sector 8/													
Coal	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Petroleum	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Natural Gas	0.88	0.90	0.95	0.96	0.98	1.00	1.03	1.05	1.08	1.11	1.14	1.17	1.20
Other Gaseous Fuels	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Renewable Sources 4/	0.17	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.22	0.23
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 60. Electric Power Projections for Electricity Market Module Region East Central Area Reliability Coordination Agreement**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	2.09	2.09	2.17	2.19	2.21	2.23	2.27	2.30	2.33	2.36	2.39	2.43	2.46
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	170.53	167.80	171.10	178.28	180.70	184.08	187.93	190.51	193.11	195.29	197.87	199.45	201.49
Commercial/Other	149.54	145.61	149.83	155.29	159.48	164.26	169.00	173.35	177.44	181.33	185.01	188.65	192.23
Industrial	196.07	193.20	204.33	209.47	210.50	212.67	216.66	220.72	222.67	224.97	227.00	228.39	231.12
Transportation	3.08	3.12	3.21	3.27	3.33	3.38	3.44	3.50	3.56	3.61	3.67	3.72	3.78
Total Sales	519.22	509.74	528.48	546.31	554.01	564.40	577.04	588.09	596.78	605.20	613.55	620.21	628.62
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.01	1.27	5.92	5.39	6.70	5.50	5.39	5.33	4.42	6.79	8.20	7.53	7.46
Gross International Exports	0.93	4.93	4.98	5.13	4.48	4.62	4.16	3.74	3.37	3.30	3.23	3.17	3.10
Gross Interregional Electricity Imports	6.67	7.19	9.69	7.64	8.81	8.05	7.55	6.22	5.91	5.96	6.08	5.45	4.66
Gross Interregional Electricity Exports	47.55	70.34	57.42	59.78	56.35	58.72	57.80	61.93	60.68	63.74	63.77	61.29	58.90
Purchases from Combined Heat and Power 8/	0.95	1.06	1.14	1.19	1.25	1.28	1.32	1.37	1.40	1.43	1.46	1.48	1.51
Electric Power Sector Generation for Customers	579.57	569.99	613.74	632.01	633.23	648.36	660.66	676.95	685.43	694.47	701.35	706.75	713.59
Total Net Energy for Load	538.71	504.23	568.09	581.32	589.16	599.85	612.97	624.21	633.11	641.61	650.08	656.74	665.22
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	496.67	499.26	510.76	531.46	532.94	548.04	558.32	568.91	572.34	575.76	580.35	583.04	585.76
Petroleum	5.27	4.91	3.74	4.05	3.92	4.03	4.13	4.23	4.27	4.30	4.36	4.40	4.43
Natural Gas	22.23	15.88	40.18	40.57	40.02	39.72	40.98	45.78	49.78	55.24	57.14	59.50	63.20
Nuclear	55.55	49.05	61.38	57.97	58.12	58.25	58.32	58.40	58.47	58.55	58.62	58.70	58.73
Pumped Storage/Other 3/	-2.22	-1.97	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79
Renewable Sources 4/	5.87	6.33	6.40	6.69	7.00	7.11	7.70	8.43	9.36	9.41	9.66	9.91	10.27
Total Generation	583.37	573.45	620.66	638.96	640.21	655.36	667.67	683.96	692.44	701.47	708.35	713.75	720.60
Sales to Customers	579.57	569.99	613.74	632.01	633.23	648.36	660.66	676.95	685.43	694.47	701.35	706.75	713.59
Generation for Own Use	3.80	3.47	6.92	6.95	6.98	7.00	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>End Use Sector 8/</b>													
Coal	4.22	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Petroleum	0.08	0.09	0.10	0.10	0.12	0.12	0.13	0.14	0.14	0.14	0.14	0.15	0.15
Natural Gas	0.68	0.62	0.65	0.67	0.72	0.74	0.76	0.79	0.82	0.85	0.87	0.90	0.93
Other Gaseous Fuels	0.09	0.09	0.09	0.09	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08
Renewable Sources 4/	1.53	1.57	1.67	1.74	1.76	1.79	1.83	1.87	1.89	1.92	1.94	1.95	1.98
Other	2.26	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Total	8.87	9.00	9.14	9.22	9.28	9.33	9.41	9.49	9.55	9.60	9.66	9.70	9.76
Sales to Utilities	0.95	1.06	1.14	1.19	1.25	1.28	1.32	1.37	1.40	1.43	1.46	1.48	1.51
Generation for Own Use	7.93	7.94	7.99	8.03	8.03	8.05	8.09	8.12	8.15	8.18	8.20	8.22	8.25
Total Electricity Generation	592.24	582.46	629.80	648.18	649.49	664.69	677.08	693.45	701.99	711.07	718.01	723.45	730.36
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	7.5	7.4	7.4	7.3	7.4	7.1	6.9	6.9	6.9	7.0	7.1	7.2	7.4
Commercial	6.9	6.7	7.2	7.2	6.9	6.5	6.3	6.2	6.2	6.3	6.5	6.7	7.0
Industrial	4.4	4.3	5.0	4.9	4.8	4.6	4.5	4.4	4.4	4.4	4.5	4.6	4.8
Transportation	6.1	6.5	6.5	6.3	5.9	5.7	5.5	5.5	5.5	5.6	5.7	5.8	6.0
All Sectors Average	6.1	6.0	6.4	6.4	6.2	6.0	5.8	5.8	5.7	5.8	5.9	6.1	6.3
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	4.0	4.0	4.4	4.3	4.2	4.0	3.8	3.7	3.7	3.7	3.9	4.0	4.3

**Table 60. Electric Power Projections for Electricity Market Module Region East Central Area Reliability Coordination Agreement**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Distribution	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Fuel Consumption (quadrillion Btu) 9/													
Coal	5.18	5.26	5.22	5.43	5.44	5.60	5.71	5.82	5.86	5.90	5.95	5.98	6.02
Natural Gas	0.23	0.16	0.39	0.40	0.39	0.39	0.40	0.44	0.47	0.51	0.51	0.53	0.56
Oil	0.07	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05
Total	5.47	5.47	5.65	5.87	5.88	6.03	6.15	6.30	6.37	6.45	6.50	6.56	6.62
Fuel Prices (dollars per million Btu)													
Coal	1.24	1.13	1.17	1.18	1.18	1.17	1.18	1.26	1.31	1.33	1.33	1.35	1.35
Natural Gas	3.71	5.56	6.04	5.93	5.19	4.69	4.29	4.18	4.04	4.05	4.15	4.26	4.44
Distillate Fuel	5.67	6.48	7.12	6.85	6.23	5.81	5.68	5.46	5.31	5.26	5.31	5.35	5.41
Residual Fuel	4.24	5.09	5.75	5.62	4.94	4.52	4.34	4.20	4.16	4.21	4.27	4.32	4.37
Biomass	0.89	0.88	0.88	1.16	1.25	1.28	1.32	1.42	1.47	1.43	1.45	1.50	1.53
Emissions 10/													
Total Carbon (million tons)	153.13	157.50	155.35	161.38	161.59	166.00	169.33	173.24	174.89	176.74	178.25	179.46	180.87
Carbon Dioxide (million tons)	561.48	577.50	569.61	591.74	592.49	608.66	620.87	635.22	641.27	648.05	653.58	658.01	663.19
Sulfur Dioxide (million tons)	3.03	3.24	3.51	3.71	3.53	3.47	3.30	2.99	2.72	2.64	2.63	2.60	2.61
Nitrogen Oxide (million tons)	1.09	1.03	0.86	0.86	0.87	0.90	0.94	0.96	0.97	0.98	0.98	0.98	0.98
Mercury (tons)	12.78	12.00	11.96	13.03	12.98	12.92	12.98	13.18	12.83	12.87	12.95	12.99	13.15

**Table 60. Electric Power Projections for Electricity Market Module Region East Central Area Reliability Coordination Agreement**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	82.57	82.57	82.57	82.57	82.57	82.57	82.57	82.57	82.57	82.57	82.57	-0.1%
Other Fossil Steam 2/	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	-13.3%
Combined Cycle	12.19	12.19	12.19	12.19	12.51	13.16	14.26	15.80	17.23	18.59	19.34	2.8%
Combustion Turbine/Diesel	21.35	22.86	24.41	26.19	27.50	28.75	29.34	29.80	30.31	31.21	32.43	2.4%
Nuclear Power	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	0.0%
Pumped Storage/Other 3/	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	1.75	1.75	1.75	1.75	1.81	1.91	1.94	1.94	1.99	2.05	2.05	0.8%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Capacity	129.19	130.70	132.25	134.03	135.72	137.72	139.45	141.45	143.43	145.76	147.72	0.6%
Cumulative Planned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	N/A
Combustion Turbine/Diesel	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.32	0.97	2.07	3.61	5.04	6.40	7.15	N/A
Combustion Turbine/Diesel	1.54	3.05	4.60	6.38	7.69	8.94	9.53	9.99	10.50	11.40	12.62	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.06	0.16	0.20	0.20	0.25	0.30	0.30	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Unplanned Additions	1.54	3.05	4.60	6.38	8.07	10.06	11.79	13.80	15.78	18.11	20.07	N/A
Cumulative Total Additions	4.38	5.89	7.44	9.22	10.91	12.90	14.63	16.64	18.62	20.95	22.91	N/A
Cumulative Retirements 7/												
Coal Steam	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	N/A
Other Fossil Steam 3/	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	N/A
Combined Cycle	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	N/A
Combustion Turbine/Diesel	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	N/A
End Use Sector 8/												
Coal	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.0%
Petroleum	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	4.2%
Natural Gas	1.23	1.26	1.30	1.34	1.38	1.42	1.47	1.51	1.56	1.61	1.66	2.9%
Other Gaseous Fuels	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	-0.3%
Renewable Sources 4/	0.23	0.23	0.24	0.25	0.25	0.26	0.27	0.28	0.29	0.30	0.31	2.7%
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A

**Table 60. Electric Power Projections for Electricity Market Module Region East Central Area Reliability Coordination Agreement**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	2.50	2.53	2.57	2.62	2.67	2.73	2.78	2.84	2.90	2.96	3.02	1.7%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	203.69	206.26	207.90	209.93	211.87	214.43	215.92	218.21	220.59	223.51	225.30	1.3%
Commercial/Other	196.06	200.16	204.44	208.45	212.50	216.71	221.14	225.88	230.69	235.75	240.82	2.3%
Industrial	232.84	233.63	236.11	239.30	241.93	243.97	245.52	247.26	249.33	251.32	253.09	1.2%
Transportation	3.83	3.89	3.95	4.02	4.08	4.15	4.21	4.28	4.35	4.42	4.49	1.7%
Total Sales	636.42	643.94	652.40	661.70	670.38	679.26	686.79	695.64	704.96	715.00	723.70	1.6%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	5.66	5.65	4.15	4.49	4.66	4.67	4.07	3.68	3.63	0.42	0.35	-5.7%
Gross International Exports	3.04	2.98	2.92	2.86	2.81	2.75	2.70	2.64	2.59	2.54	2.49	-3.1%
Gross Interregional Electricity Imports	3.98	4.25	3.89	3.53	2.44	1.73	1.17	0.74	0.59	0.48	0.65	-10.3%
Gross Interregional Electricity Exports	54.18	51.70	50.51	46.56	43.39	35.60	30.38	23.03	19.96	14.54	12.20	-7.7%
Purchases from Combined Heat and Power 8/	1.54	1.57	1.61	1.65	1.70	1.75	1.80	1.84	1.87	1.91	1.94	2.8%
Electric Power Sector Generation for Customers	719.10	724.23	733.75	739.56	746.38	748.57	752.29	755.10	761.99	770.43	777.10	1.4%
Total Net Energy for Load	673.07	681.02	689.97	699.80	708.98	718.37	726.24	735.69	745.54	756.16	765.36	1.9%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	587.26	588.50	590.16	590.67	591.49	591.87	591.75	591.31	592.40	593.60	594.93	0.8%
Petroleum	4.45	4.47	4.51	4.51	4.77	4.78	4.78	4.77	4.77	4.78	4.79	-0.1%
Natural Gas	66.99	70.90	78.88	83.88	89.37	90.86	94.68	98.04	104.86	111.76	117.49	9.5%
Nuclear	58.73	58.73	58.73	58.73	58.73	58.73	58.73	58.73	58.73	58.73	58.73	0.8%
Pumped Storage/Other 3/	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-0.4%
Renewable Sources 4/	10.46	10.44	10.26	10.56	10.82	11.12	11.14	11.05	10.03	10.36	9.95	2.1%
Total Generation	726.11	731.24	740.75	746.57	753.39	755.58	759.29	762.11	769.00	777.43	784.10	1.4%
Sales to Customers	719.10	724.23	733.75	739.56	746.38	748.57	752.29	755.10	761.99	770.43	777.10	1.4%
Generation for Own Use	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	3.2%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
<b>End Use Sector 8/</b>												
Coal	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	0.0%
Petroleum	0.15	0.16	0.17	0.17	0.18	0.19	0.20	0.20	0.20	0.20	0.20	3.8%
Natural Gas	0.96	1.00	1.03	1.07	1.11	1.15	1.20	1.24	1.29	1.34	1.39	3.7%
Other Gaseous Fuels	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	-0.4%
Renewable Sources 4/	2.01	2.02	2.06	2.11	2.16	2.20	2.25	2.29	2.35	2.39	2.44	2.0%
Other	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	0.0%
Total	9.83	9.88	9.96	10.05	10.15	10.25	10.36	10.45	10.55	10.64	10.74	0.8%
Sales to Utilities	1.54	1.57	1.61	1.65	1.70	1.75	1.80	1.84	1.87	1.91	1.94	2.8%
Generation for Own Use	8.28	8.31	8.36	8.40	8.45	8.50	8.56	8.61	8.67	8.73	8.80	0.5%
Total Electricity Generation	735.94	741.12	750.72	756.62	763.54	765.83	769.65	772.56	779.55	788.08	794.85	1.4%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	7.4	7.4	7.5	7.5	7.6	7.6	7.7	7.7	7.7	7.7	7.7	0.2%
Commercial	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.7	7.7	7.7	7.7	0.6%
Industrial	5.0	5.0	5.1	5.2	5.4	5.4	5.5	5.5	5.5	5.5	5.6	1.2%
Transportation	6.0	6.0	6.1	6.1	6.2	6.3	6.3	6.3	6.2	6.2	6.3	-0.2%
All Sectors Average	6.4	6.5	6.5	6.6	6.8	6.8	6.9	6.9	6.9	6.9	7.0	0.7%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	4.4	4.4	4.5	4.6	4.7	4.8	4.8	4.8	4.9	4.9	4.9	1.0%

**Table 60. Electric Power Projections for Electricity Market Module Region East Central Area Reliability Coordination Agreement**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.8%
Distribution	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	-0.3%
<b>Fuel Consumption (quadrillion Btu) 9/</b>												
Coal	6.03	6.05	6.07	6.07	6.08	6.09	6.08	6.08	6.09	6.10	6.12	0.7%
Natural Gas	0.59	0.62	0.68	0.72	0.76	0.77	0.79	0.80	0.85	0.89	0.93	8.4%
Oil	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	-0.4%
Total	6.67	6.71	6.79	6.84	6.89	6.90	6.93	6.93	6.99	7.05	7.10	1.2%
<b>Fuel Prices (dollars per million Btu)</b>												
Coal	1.36	1.36	1.37	1.38	1.39	1.40	1.40	1.40	1.41	1.41	1.42	1.1%
Natural Gas	4.57	4.55	4.60	4.75	4.92	5.03	5.13	5.18	5.19	5.26	5.34	-0.2%
Distillate Fuel	5.45	5.52	5.56	5.72	5.85	5.95	6.07	6.18	6.24	6.26	6.24	-0.2%
Residual Fuel	4.43	4.48	4.54	4.59	4.65	4.71	4.76	4.82	4.87	4.93	4.99	-0.1%
Biomass	1.53	1.53	1.52	1.55	1.54	1.54	1.57	1.56	1.61	1.65	1.66	3.0%
<b>Emissions 10/</b>												
Total Carbon (million tons)	181.88	182.84	184.43	185.37	186.43	186.66	187.00	187.16	188.14	189.23	190.35	0.9%
Carbon Dioxide (million tons)	666.89	670.42	676.25	679.69	683.56	684.43	685.65	686.27	689.86	693.86	697.95	0.9%
Sulfur Dioxide (million tons)	2.59	2.62	2.62	2.61	2.53	2.53	2.54	2.54	2.55	2.55	2.54	-1.1%
Nitrogen Oxide (million tons)	0.98	0.98	0.98	0.98	0.99	0.98	0.98	0.98	0.98	0.98	0.98	-0.2%
Mercury (tons)	13.19	13.42	13.46	13.51	13.37	13.44	13.38	13.51	13.66	13.69	13.87	0.7%

**Table 60. Electric Power Projections for Electricity Market Module Region East Central Area Reliability Coordination Agreement**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power

5/ Primarily peak-load capacity fueled by natural gas

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power)

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a

**Table 61. Electric Power Projections for Electricity Market Module Region Electric Reliability Council of Texas**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16
Other Fossil Steam 2/	29.91	29.52	29.28	28.75	27.90	25.63	24.52	23.36	23.36	23.26	23.26	23.16	23.16
Combined Cycle	17.08	21.77	23.15	23.15	23.66	23.66	23.85	24.24	24.62	24.76	25.31	26.10	27.05
Combustion Turbine/Diesel	5.27	4.84	4.89	4.88	4.88	4.52	5.11	6.82	8.76	9.63	10.42	10.63	10.68
Nuclear Power	4.74	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.94	4.94	4.94	4.94	4.94
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	1.84	2.07	2.16	2.33	2.49	2.65	2.81	2.98	2.98	2.98	2.98	2.98	2.98
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.03	0.12	0.21	0.29	0.37	0.44	0.52	0.58	0.66
Total Capacity	74.00	78.14	79.41	79.03	78.89	76.52	76.44	77.62	80.19	81.18	82.59	83.56	84.64
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	1.38	1.38	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89
Combustion Turbine/Diesel	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.09	0.26	0.42	0.58	0.74	0.91	0.91	0.91	0.91	0.91	0.91
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	1.52	1.68	2.36	2.52	2.68	2.85	2.85	2.85	2.85	2.85	2.85
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.57	0.96	1.10	1.64	2.44	3.39
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.59	2.31	4.25	5.12	5.91	6.11	6.17
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.03	0.12	0.21	0.29	0.37	0.44	0.52	0.58	0.66
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.03	0.12	0.99	3.17	5.57	6.66	8.07	9.14	10.21
Cumulative Total Additions	0.00	0.00	1.52	1.68	2.38	2.64	3.67	6.02	8.42	9.51	10.92	11.99	13.07
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 3/	0.00	0.00	0.25	0.77	1.62	3.89	5.01	6.16	6.16	6.26	6.26	6.36	6.36
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.01	0.01	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.25	0.79	1.63	4.26	5.37	6.54	6.54	6.64	6.64	6.74	6.74
End Use Sector 8/													
Coal	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Petroleum	0.06	0.04	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Natural Gas	4.33	4.39	4.65	4.72	4.80	4.89	5.02	5.16	5.30	5.44	5.57	5.71	5.86
Other Gaseous Fuels	0.11	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09



**Table 61. Electric Power Projections for Electricity Market Module Region Electric Reliability Council of Texas**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	4.94	4.98	5.28	5.35	5.42	5.51	5.65	5.78	5.93	6.06	6.19	6.34	6.49
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	107.27	104.86	110.53	114.93	117.15	119.80	122.91	125.26	127.80	130.13	132.65	134.50	136.59
Commercial/Other	83.38	80.17	85.32	87.54	90.15	93.20	96.36	99.33	102.27	105.20	108.11	110.98	113.75
Industrial	81.86	78.38	85.63	87.59	87.89	91.42	93.48	94.99	95.64	96.89	98.13	99.18	101.57
Transportation	1.38	1.35	1.45	1.49	1.52	1.56	1.60	1.64	1.68	1.71	1.75	1.79	1.83
Total Sales	273.89	264.75	282.93	291.54	296.71	305.97	314.35	321.22	327.38	333.93	340.64	346.45	353.75
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross International Exports	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
Gross Interregional Electricity Imports	5.72	5.13	6.08	5.72	5.68	5.41	5.42	4.45	3.86	3.32	2.76	2.44	1.99
Gross Interregional Electricity Exports	1.61	1.61	1.51	1.51	1.51	1.51	1.51	1.51	1.53	1.53	1.90	1.81	1.67
Purchases from Combined Heat and Power 8/	7.07	6.43	7.00	7.33	8.84	9.26	9.90	10.57	11.23	11.83	12.44	13.07	13.74
Electric Power Sector Generation for Customers	271.86	268.84	288.24	297.21	301.04	310.47	318.49	325.77	332.03	338.64	345.81	351.30	358.37
Total Net Energy for Load	283.00	278.76	299.79	308.72	314.02	323.60	332.26	339.24	345.55	352.21	359.07	364.96	372.39
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	107.06	112.29	103.08	106.43	109.40	111.49	112.01	111.95	111.91	111.91	111.91	111.73	111.67
Petroleum	1.48	2.18	0.87	0.89	0.90	0.92	0.92	0.92	0.91	0.91	0.93	0.93	0.95
Natural Gas	126.97	119.92	156.71	161.33	161.41	167.69	174.62	181.16	185.80	192.26	199.25	204.60	211.56
Nuclear	35.62	33.44	34.82	35.10	35.33	35.55	35.78	35.95	37.57	37.72	37.88	38.02	38.09
Pumped Storage/Other 3/	0.49	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	3.22	3.00	5.64	6.34	6.89	7.70	8.05	8.68	8.72	8.72	8.73	8.91	8.97
Total Generation	274.84	271.38	301.13	310.10	313.93	323.36	331.38	338.66	344.91	351.53	358.70	364.19	371.25
Sales to Customers	271.86	268.84	288.24	297.21	301.04	310.47	318.49	325.77	332.03	338.64	345.81	351.30	358.37
Generation for Own Use	2.98	2.54	12.89	12.89	12.89	12.89	12.89	12.89	12.89	12.89	12.89	12.89	12.89
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.01	0.05	0.09	0.13	0.16	0.19	0.23	0.26	0.29
<b>End Use Sector 8/</b>													
Coal	2.81	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Petroleum	0.23	0.24	0.27	0.27	0.32	0.32	0.35	0.37	0.39	0.39	0.39	0.40	0.40
Natural Gas	28.87	26.21	27.59	28.18	30.26	31.03	32.17	33.37	34.59	35.72	36.88	38.09	39.37
Other Gaseous Fuels	0.26	0.25	0.26	0.26	0.18	0.18	0.18	0.19	0.19	0.19	0.20	0.20	0.21
Renewable Sources 4/	0.18	0.19	0.20	0.21	0.21	0.21	0.22	0.22	0.23	0.23	0.23	0.23	0.24
Other	1.30	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
Total	33.65	31.08	32.50	33.10	35.16	35.92	37.10	38.34	39.57	40.71	41.88	43.10	44.40
Sales to Utilities	7.07	6.43	7.00	7.33	8.84	9.26	9.90	10.57	11.23	11.83	12.44	13.07	13.74
Generation for Own Use	26.58	24.65	25.49	25.77	26.32	26.67	27.20	27.77	28.35	28.89	29.45	30.03	30.65
Total Electricity Generation	308.49	302.46	333.62	343.20	349.09	359.33	368.58	377.12	384.65	392.44	400.81	407.55	415.94
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	8.3	9.3	8.4	8.4	8.1	8.0	7.7	7.8	7.7	7.8	7.9	8.0	8.2
Commercial	7.4	8.1	8.5	8.5	8.0	7.5	7.2	7.1	6.9	6.9	7.0	7.1	7.3
Industrial	4.8	5.5	6.0	6.0	5.6	5.3	5.0	5.0	4.8	4.8	4.9	5.0	5.2
Transportation	6.5	6.9	7.5	7.5	7.0	6.5	6.3	6.4	6.3	6.5	6.6	6.8	7.0
All Sectors Average	6.9	7.8	7.7	7.7	7.3	7.0	6.8	6.7	6.6	6.6	6.7	6.9	7.0
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	4.3	5.2	5.2	5.2	4.9	4.6	4.3	4.3	4.1	4.2	4.3	4.5	4.7

**Table 61. Electric Power Projections for Electricity Market Module Region Electric Reliability Council of Texas**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
Distribution	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.09	1.08	1.09	1.12	1.15	1.17	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Natural Gas	1.23	1.12	1.21	1.25	1.26	1.32	1.38	1.42	1.45	1.49	1.54	1.58	1.62
Oil	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	2.34	2.23	2.30	2.38	2.42	2.50	2.56	2.61	2.63	2.68	2.73	2.76	2.81
Fuel Prices (dollars per million Btu)													
Coal	1.20	1.07	1.09	1.18	1.16	1.15	1.15	1.20	1.19	1.19	1.19	1.22	1.21
Natural Gas	3.44	5.31	5.63	5.40	4.63	4.14	3.76	3.77	3.74	3.80	3.93	4.05	4.23
Distillate Fuel	5.60	6.40	7.05	6.78	6.06	5.64	5.44	5.26	5.16	5.12	5.17	5.20	5.26
Residual Fuel	4.33	5.19	5.86	5.73	4.99	4.58	4.39	4.26	4.21	4.27	4.32	4.38	4.44
Biomass	0.69	0.69	0.91	1.09	0.99	1.30	1.00	1.03	1.04	1.04	1.04	1.14	1.33
Emissions 10/													
Total Carbon (million tons)	51.15	49.44	51.26	52.96	53.95	55.55	56.63	57.29	57.73	58.52	59.31	59.76	60.45
Carbon Dioxide (million tons)	187.53	181.28	187.94	194.20	197.83	203.70	207.64	210.05	211.69	214.59	217.46	219.10	221.66
Sulfur Dioxide (million tons)	0.26	0.24	0.24	0.25	0.25	0.26	0.25	0.26	0.25	0.25	0.25	0.24	0.24
Nitrogen Oxide (million tons)	0.23	0.22	0.15	0.16	0.16	0.16	0.17	0.17	0.16	0.17	0.17	0.17	0.17
Mercury (tons)	3.49	3.30	3.35	3.48	3.63	3.70	3.73	3.79	3.80	3.82	3.81	3.79	3.79

**Table 61. Electric Power Projections for Electricity Market Module Region Electric Reliability Council of Texas**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	15.16	15.16	15.16	15.16	15.16	15.16	15.25	15.78	17.20	18.39	19.28	1.1%
Other Fossil Steam 2/	23.00	23.00	23.00	23.00	23.00	22.78	22.78	22.55	22.55	22.55	22.14	-1.3%
Combined Cycle	28.00	29.31	30.30	31.38	31.86	32.91	33.93	34.21	34.21	34.50	34.78	2.2%
Combustion Turbine/Diesel	10.68	10.68	10.68	10.68	11.16	11.25	11.30	11.69	11.76	11.85	11.88	4.2%
Nuclear Power	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	0.4%
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	2.99	2.99	3.04	3.04	3.05	3.10	3.19	3.20	3.20	3.29	3.39	2.3%
Distributed Generation 5/	0.72	0.80	0.87	0.94	1.00	1.07	1.13	1.20	1.28	1.37	1.44	N/A
Total Capacity	85.75	87.13	88.24	89.39	90.42	91.46	92.78	93.82	95.39	97.15	98.10	1.0%
Cumulative Planned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	N/A
Combustion Turbine/Diesel	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.91	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.93	0.93	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	2.86	2.86	2.86	2.86	2.86	2.87	2.87	2.87	2.87	2.87	2.88	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.62	2.04	3.23	4.12	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	4.34	5.65	6.64	7.71	8.19	9.24	10.27	10.55	10.55	10.84	11.11	N/A
Combustion Turbine/Diesel	6.17	6.17	6.17	6.17	6.65	6.74	6.79	7.18	7.25	7.34	7.37	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.05	0.05	0.05	0.10	0.20	0.20	0.20	0.29	0.39	N/A
Distributed Generation 5/	0.72	0.80	0.87	0.94	1.00	1.07	1.13	1.20	1.28	1.37	1.44	N/A
Total Unplanned Additions	11.23	12.61	13.73	14.87	15.89	17.16	18.47	19.74	21.31	23.07	24.43	N/A
Cumulative Total Additions	14.09	15.47	16.59	17.73	18.76	20.02	21.34	22.61	24.18	25.94	27.30	N/A
Cumulative Retirements 7/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 3/	6.52	6.52	6.52	6.52	6.52	6.74	6.74	6.97	6.97	6.97	7.38	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	6.90	6.90	6.90	6.90	6.90	7.12	7.12	7.35	7.35	7.35	7.76	N/A
End Use Sector 8/												
Coal	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.0%
Petroleum	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	4.2%
Natural Gas	6.01	6.17	6.35	6.55	6.75	6.97	7.19	7.42	7.66	7.90	8.15	2.9%
Other Gaseous Fuels	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	-0.3%
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.0%

**Table 61. Electric Power Projections for Electricity Market Module Region Electric Reliability Council of Texas**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	6.64	6.80	6.98	7.18	7.39	7.61	7.84	8.06	8.30	8.54	8.80	2.6%
<b>Electricity Demand (billion kilowatthours)</b>												
Residential	138.76	141.20	143.06	145.13	147.09	149.48	151.30	153.72	156.31	159.31	161.44	2.0%
Commercial/Other	116.59	119.62	122.73	125.81	128.58	131.43	134.46	137.71	141.12	144.77	148.36	2.8%
Industrial	102.31	102.88	104.34	105.83	106.55	107.28	107.69	107.96	108.26	109.25	110.09	1.6%
Transportation	1.87	1.91	1.96	2.00	2.05	2.10	2.14	2.19	2.24	2.29	2.34	2.5%
Total Sales	359.53	365.61	372.09	378.77	384.27	390.28	395.60	401.58	407.93	415.62	422.23	2.1%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross International Exports	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	1.0%
Gross Interregional Electricity Imports	1.53	1.39	1.47	1.66	1.65	1.60	1.05	0.86	0.65	0.62	0.70	-8.7%
Gross Interregional Electricity Exports	1.52	1.37	1.03	0.88	0.73	0.57	0.43	0.28	0.28	0.28	0.28	-7.7%
Purchases from Combined Heat and Power 8/	14.40	15.12	15.90	16.72	17.62	18.56	19.51	20.42	21.36	22.32	23.30	6.0%
Electric Power Sector Generation for Customers	363.88	369.51	375.12	380.96	385.68	390.93	395.95	401.35	407.27	414.40	420.27	2.1%
Total Net Energy for Load	378.25	384.62	391.41	398.42	404.18	410.47	416.04	422.31	428.96	437.02	443.94	2.1%
<b>Generation by Fuel Type (billion kilowatthours)</b>												
<b>Electric Power Sector</b>												
Coal	111.67	111.82	111.97	111.99	112.03	112.08	112.70	116.64	126.90	135.85	142.41	1.1%
Petroleum	0.97	0.97	0.98	1.00	1.00	1.00	1.02	1.05	1.15	1.23	1.29	-2.3%
Natural Gas	215.20	220.74	226.02	231.67	236.32	241.35	245.24	246.45	241.70	239.55	238.23	3.2%
Nuclear	39.95	40.03	40.12	40.21	40.21	40.21	40.21	40.21	40.21	40.21	40.21	0.8%
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	8.98	8.83	8.92	8.98	9.01	9.19	9.68	9.90	10.20	10.45	11.01	6.1%
Total Generation	376.77	382.40	388.00	393.84	398.57	403.82	408.84	414.24	420.16	427.28	433.16	2.1%
Sales to Customers	363.88	369.51	375.12	380.96	385.68	390.93	395.95	401.35	407.27	414.40	420.27	2.1%
Generation for Own Use	12.89	12.89	12.89	12.89	12.89	12.89	12.89	12.89	12.89	12.89	12.89	7.7%
Distributed Generation 5/	0.32	0.35	0.38	0.41	0.44	0.47	0.50	0.53	0.56	0.60	0.63	N/A
<b>End Use Sector 8/</b>												
Coal	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	0.0%
Petroleum	0.42	0.44	0.45	0.47	0.49	0.52	0.55	0.56	0.55	0.55	0.55	3.8%
Natural Gas	40.63	42.00	43.50	45.10	46.84	48.65	50.53	52.40	54.36	56.38	58.48	3.7%
Other Gaseous Fuels	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.23	0.23	0.23	0.23	-0.4%
Renewable Sources 4/	0.24	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.28	0.29	0.29	2.0%
Other	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	0.0%
Total	45.68	47.07	48.59	50.22	51.99	53.84	55.76	57.65	59.61	61.63	63.74	3.3%
Sales to Utilities	14.40	15.12	15.90	16.72	17.62	18.56	19.51	20.42	21.36	22.32	23.30	6.0%
Generation for Own Use	31.27	31.95	32.70	33.50	34.37	35.29	36.26	37.23	38.25	39.32	40.45	2.3%
Total Electricity Generation	422.77	429.82	436.98	444.47	450.99	458.14	465.10	472.41	480.33	489.52	497.53	2.3%
<b>End-Use Prices (2003 cents per kilowatthour)</b>												
Residential	8.3	8.2	8.3	8.4	8.6	8.7	8.7	8.7	8.6	8.6	8.7	-0.3%
Commercial	7.4	7.4	7.5	7.7	7.9	8.0	8.1	8.1	8.0	8.0	8.2	0.0%
Industrial	5.3	5.2	5.3	5.5	5.7	5.8	5.8	5.9	5.8	5.8	5.9	0.3%
Transportation	7.0	7.0	7.1	7.2	7.4	7.5	7.5	7.6	7.5	7.5	7.6	0.4%
All Sectors Average	7.1	7.1	7.2	7.4	7.5	7.6	7.7	7.7	7.7	7.7	7.8	0.0%
<b>Prices by Service Category (2003 cents per kilowatthour)</b>												
Generation	4.8	4.8	4.8	5.0	5.2	5.4	5.4	5.5	5.4	5.4	5.6	0.3%

**Table 61. Electric Power Projections for Electricity Market Module Region Electric Reliability Council of Texas**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7%
Distribution	1.7	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	-1.2%
Fuel Consumption (quadrillion Btu) 9/												
Coal	1.18	1.18	1.18	1.18	1.18	1.18	1.19	1.22	1.31	1.38	1.44	1.3%
Natural Gas	1.64	1.66	1.69	1.72	1.76	1.78	1.80	1.81	1.77	1.75	1.74	2.0%
Oil	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-3.1%
Total	2.82	2.85	2.88	2.91	2.95	2.97	3.00	3.04	3.09	3.15	3.19	1.6%
Fuel Prices (dollars per million Btu)												
Coal	1.21	1.20	1.19	1.19	1.19	1.15	1.15	1.16	1.20	1.23	1.25	0.7%
Natural Gas	4.36	4.33	4.42	4.59	4.75	4.86	4.93	4.94	4.91	4.93	4.99	-0.3%
Distillate Fuel	5.32	5.38	5.44	5.62	5.75	5.81	5.96	6.08	6.15	6.16	6.17	-0.2%
Residual Fuel	4.49	4.55	4.60	4.66	4.72	4.77	4.82	4.88	4.93	4.99	5.05	-0.1%
Biomass	1.31	1.24	1.18	1.15	1.14	1.13	1.26	1.43	1.46	1.50	1.52	3.7%
Emissions 10/												
Total Carbon (million tons)	60.73	61.22	61.73	62.26	62.75	63.18	63.63	64.68	66.61	68.55	70.01	1.6%
Carbon Dioxide (million tons)	222.69	224.46	226.35	228.29	230.07	231.65	233.29	237.18	244.23	251.36	256.70	1.6%
Sulfur Dioxide (million tons)	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.25	0.0%
Nitrogen Oxide (million tons)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.18	0.18	-1.0%
Mercury (tons)	3.79	3.79	3.79	3.77	3.77	3.76	3.78	3.80	3.84	3.88	3.92	0.8%

**Table 61. Electric Power Projections for Electricity Market Module Region Electric Reliability Council of Texas**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 62. Electric Power Projections for Electricity Market Module Region Mid-Atlantic Area Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	20.20	20.01	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53
Other Fossil Steam 2/	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	7.12	7.12	7.12
Combined Cycle	8.33	10.00	12.13	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31
Combustion Turbine/Diesel	10.35	11.16	11.16	11.31	11.31	11.31	11.31	11.31	11.31	11.31	10.94	10.94	11.54
Nuclear Power	13.05	13.12	13.26	13.26	13.40	13.40	13.40	13.42	13.42	13.42	13.42	13.42	13.42
Pumped Storage/Other 3/	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	1.89	1.92	1.92	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.08
Total Capacity	63.75	66.14	68.94	70.34	70.47	70.47	70.47	70.49	70.49	70.49	68.85	68.89	69.53
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	2.13	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31
Combustion Turbine/Diesel	0.00	0.00	0.00	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	2.65	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.08
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.67
Cumulative Total Additions	0.00	0.00	2.65	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.08	4.72
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	1.27	1.27
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	1.64	1.64
End Use Sector 8/													
Coal	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Petroleum	0.04	0.03	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Natural Gas	0.92	0.93	0.99	1.00	1.02	1.04	1.07	1.09	1.12	1.15	1.18	1.21	1.24
Other Gaseous Fuels	0.07	0.06	0.06	0.06	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Renewable Sources 4/	0.10	0.11	0.11	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.14	0.14	0.14
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 62. Electric Power Projections for Electricity Market Module Region Mid-Atlantic Area Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	1.22	1.22	1.31	1.33	1.34	1.37	1.40	1.43	1.46	1.50	1.53	1.56	1.59
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	92.41	95.19	95.05	97.81	99.75	102.21	104.57	105.84	107.07	108.16	109.34	110.07	111.16
Commercial/Other	106.91	107.86	108.60	111.30	114.57	118.54	122.35	125.47	128.22	130.80	132.82	134.82	136.93
Industrial	58.78	59.42	61.28	62.47	62.64	63.29	64.40	65.42	65.78	66.31	66.77	67.03	67.68
Transportation	1.96	2.03	2.05	2.09	2.13	2.17	2.21	2.25	2.29	2.33	2.37	2.40	2.44
Total Sales	260.06	264.51	266.99	273.67	279.09	286.20	293.53	298.98	303.36	307.60	311.30	314.33	318.21
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross Interregional Electricity Imports	16.32	23.37	16.33	16.87	18.89	20.97	22.19	20.88	20.53	21.41	21.28	19.39	16.96
Gross Interregional Electricity Exports	5.84	4.35	4.02	3.94	4.42	4.69	5.11	5.62	5.68	6.07	6.02	5.54	4.89
Purchases from Combined Heat and Power 8/	1.01	1.00	1.14	1.18	1.41	1.44	1.58	1.71	1.81	1.87	1.94	2.00	2.08
Electric Power Sector Generation for Customers	251.83	254.48	271.17	277.48	281.32	286.87	293.57	300.80	305.59	309.32	313.07	317.41	322.98
Total Net Energy for Load	263.32	274.51	284.62	291.60	297.20	304.60	312.22	317.76	322.25	326.54	330.26	333.26	337.13
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	117.50	121.45	121.49	126.10	129.37	133.47	136.28	140.45	141.19	141.04	143.23	143.86	144.10
Petroleum	6.36	10.11	10.70	10.83	10.57	10.61	10.80	10.90	10.95	11.10	8.20	8.23	8.79
Natural Gas	25.69	19.50	25.15	25.44	24.64	25.68	29.20	32.03	34.84	38.02	42.61	46.21	50.74
Nuclear	105.49	105.14	109.67	109.88	110.91	110.99	111.06	111.14	111.21	111.28	111.35	111.42	111.43
Pumped Storage/Other 3/	-0.10	-0.35	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82
Renewable Sources 4/	7.73	9.43	10.37	11.50	12.14	12.49	12.61	12.66	13.79	14.25	14.06	14.07	14.31
Total Generation	262.67	265.29	276.56	282.93	286.81	292.41	299.13	306.35	311.15	314.88	318.63	322.97	328.54
Sales to Customers	251.83	254.48	271.17	277.48	281.32	286.87	293.57	300.80	305.59	309.32	313.07	317.41	322.98
Generation for Own Use	10.84	10.81	5.39	5.44	5.49	5.54	5.56	5.56	5.56	5.56	5.56	5.56	5.56
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03
<b>End Use Sector 8/</b>													
Coal	1.09	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Petroleum	0.61	0.64	0.71	0.71	0.84	0.84	0.91	0.98	1.02	1.02	1.03	1.04	1.06
Natural Gas	2.47	2.24	2.36	2.41	2.59	2.66	2.75	2.86	2.96	3.06	3.16	3.26	3.37
Other Gaseous Fuels	0.68	0.67	0.68	0.68	0.47	0.47	0.48	0.49	0.50	0.51	0.52	0.53	0.55
Renewable Sources 4/	0.72	0.74	0.79	0.82	0.83	0.84	0.86	0.88	0.90	0.91	0.92	0.92	0.94
Other	0.26	0.29	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Total	5.82	5.64	5.88	5.97	6.09	6.16	6.36	6.56	6.73	6.85	6.98	7.11	7.26
Sales to Utilities	1.01	1.00	1.14	1.18	1.41	1.44	1.58	1.71	1.81	1.87	1.94	2.00	2.08
Generation for Own Use	4.81	4.64	4.75	4.78	4.68	4.71	4.78	4.85	4.92	4.98	5.04	5.11	5.18
Total Electricity Generation	268.50	270.93	282.44	288.89	292.90	298.57	305.49	312.91	317.88	321.73	325.61	330.10	335.83
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	9.7	9.5	8.8	8.5	7.8	7.2	7.1	7.4	7.6	7.8	8.2	8.5	8.7
Commercial	8.1	8.2	7.6	7.3	6.6	5.9	5.7	5.9	6.0	6.2	6.7	7.0	7.3
Industrial	6.3	6.4	6.4	6.3	6.0	5.6	5.4	5.3	5.1	5.1	5.3	5.6	5.9
Transportation	6.5	7.1	7.0	6.7	6.2	5.8	5.8	6.0	6.1	6.3	6.6	6.9	7.1
All Sectors Average	8.3	8.2	7.7	7.5	6.9	6.3	6.1	6.3	6.4	6.5	6.9	7.2	7.5
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	5.4	5.4	5.0	4.7	4.1	3.5	3.4	3.5	3.6	3.7	4.1	4.4	4.7



**Table 62. Electric Power Projections for Electricity Market Module Region Mid-Atlantic Area Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Distribution	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.21	1.20	1.22	1.27	1.30	1.34	1.37	1.42	1.43	1.43	1.46	1.47	1.48
Natural Gas	0.25	0.18	0.25	0.25	0.24	0.25	0.28	0.30	0.32	0.35	0.38	0.41	0.44
Oil	0.08	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.10	0.10	0.10
Total	1.54	1.50	1.60	1.65	1.67	1.72	1.78	1.85	1.89	1.91	1.94	1.98	2.02
Fuel Prices (dollars per million Btu)													
Coal	1.42	1.35	1.40	1.44	1.40	1.43	1.43	1.44	1.43	1.43	1.43	1.42	1.42
Natural Gas	4.04	6.08	6.12	5.93	5.13	4.64	4.34	4.24	4.11	4.14	4.23	4.35	4.55
Distillate Fuel	5.63	6.44	7.08	6.80	6.07	5.68	5.49	5.31	5.29	5.26	5.26	5.33	5.40
Residual Fuel	4.02	4.81	5.44	5.32	4.95	4.54	4.33	4.20	4.15	4.20	4.25	4.30	4.35
Biomass	0.69	0.69	0.70	1.51	1.83	1.80	1.82	1.86	1.82	1.71	1.70	1.70	1.70
Emissions 10/													
Total Carbon (million tons)	41.02	41.09	41.45	42.77	43.55	44.87	46.18	47.97	48.61	49.04	49.57	50.26	51.08
Carbon Dioxide (million tons)	150.41	150.68	151.99	156.81	159.67	164.51	169.34	175.89	178.24	179.82	181.74	184.28	187.29
Sulfur Dioxide (million tons)	1.29	1.16	1.17	1.29	1.29	1.27	1.28	1.07	1.03	1.06	1.02	1.02	1.03
Nitrogen Oxide (million tons)	0.24	0.23	0.21	0.21	0.22	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24
Mercury (tons)	4.00	4.35	4.48	4.54	4.55	4.81	4.88	5.15	5.28	5.17	5.08	5.08	5.12

**Table 62. Electric Power Projections for Electricity Market Module Region Mid-Atlantic Area Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	20.53	20.53	20.53	20.53	20.63	20.87	21.72	22.63	23.65	24.61	25.53	1.1%
Other Fossil Steam 2/	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	-0.7%
Combined Cycle	13.31	13.31	13.96	14.48	14.62	15.22	15.22	15.22	15.22	15.42	15.42	2.0%
Combustion Turbine/Diesel	12.06	12.55	12.69	13.02	13.54	13.67	13.67	13.75	13.75	13.75	13.82	1.0%
Nuclear Power	13.42	13.42	13.66	13.66	13.66	13.66	13.66	13.66	13.66	13.66	13.66	0.2%
Pumped Storage/Other 3/	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	0.2%
Distributed Generation 5/	0.21	0.35	0.50	0.65	0.80	0.95	1.10	1.26	1.44	1.63	1.80	N/A
Total Capacity	70.18	70.81	71.99	72.99	73.90	75.02	76.01	77.17	78.37	79.72	80.88	0.9%
Cumulative Planned Additions 6/												
Coal Steam	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	N/A
Combustion Turbine/Diesel	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.10	0.34	1.19	2.10	3.12	4.08	5.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.00	0.00	0.65	1.16	1.31	1.91	1.91	1.91	1.91	2.11	2.11	N/A
Combustion Turbine/Diesel	1.12	1.60	1.75	2.08	2.60	2.73	2.73	2.80	2.80	2.80	2.88	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Distributed Generation 5/	0.21	0.35	0.50	0.65	0.80	0.95	1.10	1.26	1.44	1.63	1.80	N/A
Total Unplanned Additions	1.32	1.96	2.90	3.90	4.81	5.93	6.92	8.08	9.27	10.63	11.79	N/A
Cumulative Total Additions	5.37	6.01	6.95	7.95	8.86	9.98	10.97	12.13	13.32	14.68	15.84	N/A
Cumulative Retirements 7/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 3/	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	N/A
End Use Sector 8/												
Coal	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.0%
Petroleum	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	4.2%
Natural Gas	1.27	1.31	1.35	1.39	1.43	1.48	1.53	1.57	1.62	1.68	1.73	2.9%
Other Gaseous Fuels	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	-0.3%
Renewable Sources 4/	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.17	0.18	0.18	0.19	2.7%
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 62. Electric Power Projections for Electricity Market Module Region Mid-Atlantic Area Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	1.63	1.66	1.70	1.75	1.80	1.86	1.91	1.96	2.02	2.08	2.14	2.6%
<b>Electricity Demand (billion kilowatthours)</b>												
Residential	112.40	113.88	114.89	116.12	117.30	118.84	119.82	121.26	122.77	124.53	125.70	1.3%
Commercial/Other	139.25	141.71	144.39	146.93	149.40	151.96	154.71	157.66	160.72	163.89	167.12	2.0%
Industrial	67.90	67.80	68.37	69.09	69.66	70.16	70.43	70.88	71.47	72.02	72.47	0.9%
Transportation	2.49	2.53	2.57	2.62	2.66	2.71	2.76	2.81	2.86	2.91	2.96	1.7%
Total Sales	322.03	325.92	330.22	334.76	339.03	343.67	347.72	352.61	357.83	363.36	368.25	1.5%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross Interregional Electricity Imports	12.01	13.62	11.31	11.56	12.37	8.10	7.17	8.07	6.27	4.12	3.53	-8.2%
Gross Interregional Electricity Exports	1.79	1.59	1.48	1.34	1.27	1.29	1.17	0.59	0.35	0.44	0.63	-8.4%
Purchases from Combined Heat and Power 8/	2.16	2.24	2.33	2.43	2.56	2.71	2.86	2.95	3.04	3.13	3.22	5.4%
Electric Power Sector Generation for Customers	328.54	330.69	337.31	341.55	344.99	353.98	358.86	362.39	369.32	377.24	383.04	1.9%
Total Net Energy for Load	340.92	344.96	349.46	354.20	358.66	363.50	367.73	372.83	378.28	384.05	389.16	1.6%
<b>Generation by Fuel Type (billion kilowatthours)</b>												
<b>Electric Power Sector</b>												
Coal	144.16	144.54	144.87	145.10	146.08	147.89	153.49	159.67	166.63	173.16	179.56	1.8%
Petroleum	8.81	8.75	9.24	9.57	9.88	9.97	10.10	10.05	10.11	10.17	10.28	0.1%
Natural Gas	56.21	58.03	62.13	65.73	67.86	74.94	74.10	71.50	71.42	72.79	72.33	6.1%
Nuclear	111.43	111.43	113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25	0.3%
Pumped Storage/Other 3/	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	3.9%
Renewable Sources 4/	14.30	14.32	14.19	14.28	14.29	14.31	14.30	14.30	14.27	14.24	13.99	1.8%
Total Generation	334.10	336.25	342.87	347.11	350.55	359.54	364.42	367.95	374.87	382.80	388.60	1.8%
Sales to Customers	328.54	330.69	337.31	341.55	344.99	353.98	358.86	362.39	369.32	377.24	383.04	1.9%
Generation for Own Use	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	-3.0%
Distributed Generation 5/	0.09	0.15	0.22	0.29	0.35	0.42	0.48	0.55	0.63	0.72	0.79	N/A
<b>End Use Sector 8/</b>												
Coal	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	0.0%
Petroleum	1.10	1.15	1.18	1.23	1.29	1.37	1.46	1.46	1.46	1.45	1.45	3.8%
Natural Gas	3.48	3.60	3.72	3.86	4.01	4.16	4.33	4.49	4.65	4.83	5.01	3.7%
Other Gaseous Fuels	0.55	0.56	0.56	0.57	0.58	0.58	0.59	0.60	0.60	0.61	0.62	-0.4%
Renewable Sources 4/	0.95	0.96	0.97	1.00	1.02	1.04	1.06	1.09	1.11	1.13	1.16	2.0%
Other	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.0%
Total	7.43	7.61	7.80	8.00	8.25	8.51	8.79	8.98	9.18	9.37	9.57	2.4%
Sales to Utilities	2.16	2.24	2.33	2.43	2.56	2.71	2.86	2.95	3.04	3.13	3.22	5.4%
Generation for Own Use	5.27	5.37	5.47	5.57	5.69	5.80	5.93	6.03	6.14	6.24	6.36	1.4%
Total Electricity Generation	341.62	344.01	350.88	355.40	359.15	368.47	373.69	377.48	384.68	392.88	398.96	1.8%
<b>End-Use Prices (2003 cents per kilowatthour)</b>												
Residential	8.8	8.9	8.9	9.1	9.2	9.3	9.3	9.3	9.3	9.3	9.4	-0.1%
Commercial	7.6	7.7	7.8	8.0	8.3	8.3	8.4	8.5	8.5	8.5	8.6	0.2%
Industrial	6.1	6.2	6.3	6.5	6.7	6.8	6.9	6.9	6.9	7.0	7.0	0.4%
Transportation	7.2	7.3	7.3	7.5	7.6	7.7	7.7	7.7	7.7	7.7	7.8	0.4%
All Sectors Average	7.7	7.8	7.9	8.1	8.3	8.4	8.4	8.5	8.4	8.5	8.5	0.2%
<b>Prices by Service Category (2003 cents per kilowatthour)</b>												
Generation	4.9	5.0	5.1	5.3	5.5	5.6	5.7	5.7	5.7	5.8	5.9	0.3%

**Table 62. Electric Power Projections for Electricity Market Module Region Mid-Atlantic Area Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2%
Distribution	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-0.2%
Fuel Consumption (quadrillion Btu) 9/												
Coal	1.48	1.48	1.48	1.49	1.49	1.51	1.55	1.59	1.64	1.68	1.73	1.7%
Natural Gas	0.49	0.50	0.53	0.55	0.57	0.62	0.61	0.60	0.60	0.61	0.60	5.6%
Oil	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	-0.2%
Total	2.06	2.08	2.12	2.15	2.17	2.24	2.27	2.30	2.34	2.40	2.44	2.2%
Fuel Prices (dollars per million Btu)												
Coal	1.42	1.42	1.42	1.42	1.42	1.42	1.43	1.44	1.46	1.47	1.49	0.4%
Natural Gas	4.69	4.70	4.78	4.95	5.12	5.22	5.30	5.35	5.34	5.42	5.49	-0.5%
Distillate Fuel	5.45	5.50	5.56	5.70	5.78	5.84	5.89	5.94	6.00	6.05	6.10	-0.2%
Residual Fuel	4.41	4.46	4.51	4.56	4.62	4.68	4.73	4.79	4.84	4.89	4.95	0.1%
Biomass	1.70	1.70	1.68	1.69	1.70	1.70	1.70	1.70	1.69	1.68	1.63	4.0%
Emissions 10/												
Total Carbon (million tons)	51.80	52.13	52.74	53.28	53.79	55.03	56.03	56.95	58.31	59.78	61.03	1.8%
Carbon Dioxide (million tons)	189.92	191.16	193.40	195.36	197.24	201.76	205.45	208.80	213.81	219.19	223.76	1.8%
Sulfur Dioxide (million tons)	1.03	1.03	1.02	1.03	1.04	1.05	1.04	1.04	1.04	1.03	1.02	-0.6%
Nitrogen Oxide (million tons)	0.24	0.25	0.25	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.2%
Mercury (tons)	5.07	5.08	5.07	5.04	4.97	4.76	3.89	3.81	3.80	3.79	3.76	-0.7%

**Table 62. Electric Power Projections for Electricity Market Module Region Mid-Atlantic Area Council**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 63. Electric Power Projections for Electricity Market Module Region Mid-America Interconnected Network**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	29.62	29.54	29.52	29.58	29.57	29.50	29.50	29.50	29.50	29.50	29.40	29.40	29.40
Other Fossil Steam 2/	3.97	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	1.51	0.98	0.98
Combined Cycle	3.01	3.01	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15
Combustion Turbine/Diesel	15.81	16.57	16.63	16.62	16.62	16.62	16.62	16.62	16.62	16.62	16.27	16.27	16.51
Nuclear Power	14.42	14.43	14.43	14.43	14.48	14.48	14.59	14.59	14.59	14.67	14.67	14.67	14.67
Pumped Storage/Other 3/	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.98	1.04	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Total Capacity	68.24	68.66	69.90	69.95	69.98	69.92	70.04	70.04	70.04	70.12	67.54	67.01	67.30
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Combustion Turbine/Diesel	0.00	0.00	0.06	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	1.26	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
Cumulative Total Additions	0.00	0.00	1.26	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.73
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.01	0.01	0.03	0.09	0.09	0.09	0.09	0.09	0.19	0.19	0.19
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	2.65	2.65
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.48	0.48	0.48
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.01	0.15	0.16	0.23	0.23	0.23	0.23	0.23	2.80	3.33	3.33
End Use Sector 8/													
Coal	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Petroleum	0.04	0.03	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07
Natural Gas	0.39	0.39	0.42	0.42	0.43	0.44	0.45	0.46	0.47	0.49	0.50	0.51	0.52
Other Gaseous Fuels	0.08	0.08	0.08	0.08	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07
Renewable Sources 4/	0.19	0.20	0.21	0.22	0.22	0.23	0.23	0.24	0.25	0.25	0.25	0.25	0.26
Other	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

**Table 63. Electric Power Projections for Electricity Market Module Region Mid-America Interconnected Network**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	1.57	1.55	1.62	1.64	1.64	1.65	1.67	1.69	1.71	1.73	1.74	1.76	1.78
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	81.05	80.31	79.80	83.88	85.06	86.59	88.35	89.55	90.76	91.83	93.12	93.92	94.94
Commercial/Other	89.42	87.63	87.75	91.35	93.65	96.24	98.80	101.17	103.40	105.55	107.64	109.68	111.67
Industrial	80.85	79.80	82.63	84.80	85.39	86.28	87.87	89.52	90.35	91.22	91.96	92.47	93.51
Transportation	1.54	1.57	1.58	1.60	1.63	1.66	1.68	1.71	1.73	1.76	1.78	1.81	1.83
Total Sales	252.86	249.31	251.75	261.63	265.73	270.77	276.71	281.95	286.25	290.35	294.51	297.89	301.95
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross Interregional Electricity Imports	6.82	5.25	9.19	8.11	8.31	6.70	4.67	4.08	4.38	4.96	4.64	3.77	3.50
Gross Interregional Electricity Exports	52.30	55.05	62.22	55.62	59.38	57.21	56.32	52.19	49.92	50.08	48.67	46.92	45.42
Purchases from Combined Heat and Power 8/	0.96	1.01	1.12	1.18	1.31	1.34	1.43	1.51	1.57	1.61	1.66	1.70	1.75
Electric Power Sector Generation for Customers	291.06	298.41	319.34	324.10	331.72	336.30	343.51	345.22	346.99	350.68	353.75	356.23	359.02
Total Net Energy for Load	246.54	249.61	267.44	277.76	281.96	287.13	293.29	298.62	303.01	307.17	311.38	314.77	318.85
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	164.07	173.81	177.42	181.04	188.59	192.92	198.63	199.78	200.68	202.89	204.63	205.76	206.64
Petroleum	0.89	1.43	1.76	1.82	1.87	1.91	1.96	1.98	1.99	2.01	2.17	2.18	2.20
Natural Gas	13.39	7.06	18.60	19.19	18.58	18.63	19.31	19.67	20.53	21.76	22.88	23.99	25.86
Nuclear	113.81	117.99	120.87	121.10	121.55	121.55	122.32	122.32	122.32	122.38	122.38	122.38	122.38
Pumped Storage/Other 3/	0.06	-0.14	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13
Renewable Sources 4/	4.65	3.87	4.51	4.76	4.94	5.10	5.10	5.27	5.28	5.45	5.50	5.72	5.76
Total Generation	296.88	304.02	323.02	327.78	335.40	339.98	347.19	348.90	350.67	354.36	357.43	359.91	362.70
Sales to Customers	291.06	298.41	319.34	324.10	331.72	336.30	343.51	345.22	346.99	350.68	353.75	356.23	359.02
Generation for Own Use	5.82	5.61	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
<b>End Use Sector 8/</b>													
Coal	3.65	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56
Petroleum	0.30	0.32	0.35	0.35	0.42	0.42	0.45	0.49	0.51	0.51	0.51	0.52	0.52
Natural Gas	1.44	1.31	1.38	1.41	1.51	1.55	1.61	1.67	1.73	1.79	1.84	1.91	1.97
Other Gaseous Fuels	0.34	0.33	0.34	0.34	0.23	0.23	0.24	0.24	0.25	0.25	0.26	0.27	0.27
Renewable Sources 4/	1.37	1.41	1.50	1.56	1.58	1.61	1.64	1.68	1.70	1.72	1.74	1.75	1.78
Other	0.20	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Total	7.30	7.16	7.35	7.44	7.53	7.59	7.73	7.86	7.97	8.05	8.14	8.23	8.33
Sales to Utilities	0.96	1.01	1.12	1.18	1.31	1.34	1.43	1.51	1.57	1.61	1.66	1.70	1.75
Generation for Own Use	6.34	6.15	6.22	6.26	6.22	6.25	6.30	6.35	6.40	6.44	6.48	6.53	6.58
Total Electricity Generation	304.18	311.18	330.37	335.22	342.93	347.57	354.92	356.76	358.64	362.42	365.57	368.14	371.04
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	8.3	8.2	7.8	8.0	7.7	7.5	7.5	7.6	7.7	7.8	7.9	8.1	8.1
Commercial	7.1	6.9	6.7	6.8	6.5	6.2	6.2	6.2	6.3	6.4	6.5	6.7	6.9
Industrial	4.6	4.7	4.8	4.7	4.6	4.4	4.3	4.3	4.3	4.3	4.3	4.4	4.6
Transportation	5.6	6.2	6.3	6.0	5.9	5.7	5.7	5.8	5.9	6.0	6.1	6.2	6.3
All Sectors Average	6.7	6.6	6.4	6.5	6.3	6.0	6.0	6.0	6.1	6.2	6.3	6.4	6.6
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	4.1	4.1	4.0	3.9	3.8	3.5	3.4	3.5	3.5	3.6	3.7	3.9	4.0

**Table 63. Electric Power Projections for Electricity Market Module Region Mid-America Interconnected Network**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6
Distribution	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.84	1.95	1.95	1.97	2.05	2.09	2.17	2.19	2.20	2.24	2.26	2.28	2.29
Natural Gas	0.14	0.08	0.20	0.21	0.20	0.20	0.21	0.21	0.22	0.23	0.24	0.25	0.26
Oil	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total	1.99	2.04	2.18	2.20	2.27	2.32	2.40	2.43	2.44	2.49	2.52	2.55	2.58
Fuel Prices (dollars per million Btu)													
Coal	1.08	0.96	0.98	1.00	1.00	1.00	1.01	1.11	1.23	1.24	1.24	1.27	1.27
Natural Gas	3.42	5.63	6.22	6.22	5.56	5.07	4.65	4.48	4.31	4.31	4.41	4.55	4.73
Distillate Fuel	5.69	6.50	7.15	6.88	6.23	5.81	5.70	5.47	5.28	5.24	5.28	5.32	5.37
Residual Fuel	4.24	5.09	5.75	5.62	4.94	4.52	4.34	4.20	4.16	4.21	4.27	4.32	4.37
Biomass	1.06	1.06	1.06	1.06	1.10	1.15	1.15	1.20	1.21	1.30	1.33	1.49	1.56
Emissions 10/													
Total Carbon (million tons)	57.47	60.06	60.06	60.81	62.88	64.14	66.60	67.33	67.79	68.91	69.84	70.53	71.10
Carbon Dioxide (million tons)	210.74	220.21	220.21	222.96	230.57	235.19	244.20	246.87	248.55	252.69	256.07	258.61	260.69
Sulfur Dioxide (million tons)	0.80	0.99	0.98	0.96	0.99	0.99	0.95	0.84	0.81	0.83	0.83	0.81	0.80
Nitrogen Oxide (million tons)	0.33	0.31	0.27	0.26	0.27	0.28	0.29	0.30	0.30	0.31	0.31	0.32	0.32
Mercury (tons)	4.95	4.93	4.99	5.11	5.29	5.43	5.69	5.84	5.84	5.95	6.04	6.10	6.14



**Table 63. Electric Power Projections for Electricity Market Module Region Mid-America Interconnected Network**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	0.0%
Other Fossil Steam 2/	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	-5.8%
Combined Cycle	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.31	4.47	4.47	4.47	1.8%
Combustion Turbine/Diesel	16.88	17.59	18.26	19.07	19.87	20.79	21.54	22.24	22.88	23.82	24.64	1.8%
Nuclear Power	14.67	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	0.2%
Pumped Storage/Other 3/	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	1.10	1.10	1.10	1.10	1.10	1.10	1.15	1.21	1.29	1.38	1.45	1.5%
Distributed Generation 5/	0.09	0.14	0.18	0.23	0.28	0.33	0.37	0.42	0.59	0.77	0.92	N/A
Total Capacity	67.71	68.70	69.42	70.28	71.12	72.09	72.94	73.92	74.96	76.17	77.21	0.5%
Cumulative Planned Additions 6/												
Coal Steam	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	N/A
Combustion Turbine/Diesel	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.32	0.32	0.32	N/A
Combustion Turbine/Diesel	0.61	1.31	1.99	2.80	3.59	4.51	5.27	5.97	6.61	7.54	8.36	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.11	0.19	0.28	0.35	N/A
Distributed Generation 5/	0.09	0.14	0.18	0.23	0.28	0.33	0.37	0.42	0.59	0.77	0.92	N/A
Total Unplanned Additions	0.70	1.45	2.17	3.03	3.87	4.84	5.68	6.67	7.71	8.92	9.96	N/A
Cumulative Total Additions	2.14	2.89	3.62	4.47	5.32	6.28	7.13	8.11	9.15	10.36	11.40	N/A
Cumulative Retirements 7/												
Coal Steam	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	N/A
Other Fossil Steam 3/	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	N/A
End Use Sector 8/												
Coal	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.0%
Petroleum	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.07	0.07	4.2%
Natural Gas	0.54	0.55	0.57	0.58	0.60	0.62	0.64	0.66	0.68	0.71	0.73	2.9%
Other Gaseous Fuels	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	-0.3%
Renewable Sources 4/	0.26	0.27	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.36	2.7%
Other	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.0%

**Table 63. Electric Power Projections for Electricity Market Module Region Mid-America Interconnected Network**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	1.79	1.81	1.83	1.86	1.89	1.92	1.96	1.99	2.02	2.05	2.09	1.4%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	96.04	97.29	98.08	99.08	100.05	101.33	102.08	103.20	104.37	105.81	106.72	1.3%
Commercial/Other	113.77	116.01	118.33	120.54	122.78	125.10	127.53	130.12	132.74	135.50	138.25	2.1%
Industrial	94.21	94.55	95.49	96.75	97.83	98.59	99.15	99.78	100.51	101.18	101.80	1.1%
Transportation	1.86	1.89	1.92	1.95	1.98	2.00	2.03	2.06	2.10	2.13	2.16	1.5%
Total Sales	305.88	309.74	313.82	318.31	322.64	327.03	330.80	335.17	339.71	344.62	348.93	1.5%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross Interregional Electricity Imports	2.95	2.67	2.40	2.26	2.02	1.76	1.88	2.60	3.61	6.00	7.33	1.5%
Gross Interregional Electricity Exports	42.60	41.96	40.22	36.57	33.68	29.39	25.29	21.08	18.47	16.78	16.55	-5.3%
Purchases from Combined Heat and Power 8/	1.81	1.86	1.92	1.99	2.07	2.17	2.26	2.33	2.39	2.44	2.50	4.2%
Electric Power Sector Generation for Customers	360.64	364.27	367.03	368.17	369.99	370.46	370.11	369.73	370.76	371.72	374.59	1.0%
Total Net Energy for Load	322.80	326.84	331.13	335.85	340.40	345.01	348.97	353.57	358.28	363.38	367.86	1.8%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	206.92	207.10	208.25	208.77	209.46	209.09	208.23	207.76	207.49	207.50	208.76	0.8%
Petroleum	2.20	2.20	2.21	2.21	2.22	2.22	2.21	2.20	2.19	2.18	2.20	2.0%
Natural Gas	27.32	28.70	30.29	30.83	32.08	32.90	33.38	33.26	34.31	34.90	35.97	7.7%
Nuclear	122.38	124.45	124.45	124.45	124.45	124.45	124.45	124.45	124.45	124.45	124.45	0.2%
Pumped Storage/Other 3/	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.2%
Renewable Sources 4/	5.63	5.64	5.64	5.71	5.60	5.62	5.66	5.88	6.13	6.51	7.03	2.7%
Total Generation	364.32	367.95	370.71	371.85	373.67	374.14	373.79	373.41	374.44	375.40	378.27	1.0%
Sales to Customers	360.64	364.27	367.03	368.17	369.99	370.46	370.11	369.73	370.76	371.72	374.59	1.0%
Generation for Own Use	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	-1.9%
Distributed Generation 5/	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.26	0.34	0.40	N/A
<b>End Use Sector 8/</b>												
Coal	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	0.0%
Petroleum	0.55	0.57	0.59	0.61	0.64	0.68	0.73	0.73	0.73	0.72	0.72	3.8%
Natural Gas	2.03	2.10	2.18	2.26	2.34	2.43	2.53	2.62	2.72	2.82	2.93	3.7%
Other Gaseous Fuels	0.27	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.31	-0.4%
Renewable Sources 4/	1.80	1.82	1.85	1.89	1.94	1.98	2.02	2.06	2.11	2.15	2.19	2.0%
Other	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.0%
Total	8.44	8.55	8.68	8.83	8.99	9.17	9.35	9.49	9.64	9.78	9.93	1.5%
Sales to Utilities	1.81	1.86	1.92	1.99	2.07	2.17	2.26	2.33	2.39	2.44	2.50	4.2%
Generation for Own Use	6.64	6.69	6.76	6.84	6.92	7.00	7.09	7.17	7.25	7.33	7.42	0.9%
Total Electricity Generation	372.80	376.56	379.47	380.77	382.78	383.45	383.31	383.09	384.33	385.51	388.60	1.0%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	8.2	8.1	8.2	8.3	8.4	8.4	8.5	8.5	8.5	8.5	8.5	0.1%
Commercial	7.0	7.0	7.1	7.2	7.3	7.4	7.5	7.5	7.5	7.6	7.6	0.4%
Industrial	4.7	4.7	4.7	4.8	5.0	5.0	5.1	5.1	5.2	5.2	5.2	0.5%
Transportation	6.3	6.3	6.3	6.4	6.5	6.6	6.6	6.6	6.6	6.6	6.6	0.3%
All Sectors Average	6.6	6.6	6.7	6.8	6.9	7.0	7.1	7.1	7.1	7.1	7.2	0.4%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	4.1	4.1	4.1	4.2	4.4	4.5	4.6	4.6	4.6	4.7	4.7	0.6%

**Table 63. Electric Power Projections for Electricity Market Module Region Mid-America Interconnected Network**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.0%
Distribution	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	-0.5%
Fuel Consumption (quadrillion Btu) 9/												
Coal	2.29	2.30	2.31	2.32	2.33	2.32	2.31	2.31	2.31	2.31	2.32	0.8%
Natural Gas	0.27	0.28	0.30	0.30	0.31	0.32	0.32	0.32	0.33	0.33	0.34	6.9%
Oil	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	1.4%
Total	2.59	2.61	2.63	2.64	2.66	2.67	2.66	2.65	2.66	2.66	2.68	1.3%
Fuel Prices (dollars per million Btu)												
Coal	1.29	1.29	1.29	1.31	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.5%
Natural Gas	4.87	4.86	4.90	5.03	5.21	5.33	5.44	5.50	5.51	5.59	5.66	0.0%
Distillate Fuel	5.41	5.48	5.53	5.68	5.82	5.93	6.08	6.20	6.27	6.28	6.22	-0.2%
Residual Fuel	4.43	4.48	4.54	4.59	4.65	4.71	4.76	4.82	4.87	4.93	4.99	-0.1%
Biomass	1.54	1.54	1.54	1.58	1.54	1.51	1.52	1.49	1.56	1.63	1.67	2.1%
Emissions 10/												
Total Carbon (million tons)	71.42	71.71	72.40	72.69	73.08	73.09	72.84	72.66	72.68	72.79	73.33	0.9%
Carbon Dioxide (million tons)	261.87	262.94	265.45	266.51	267.97	267.98	267.09	266.42	266.49	266.88	268.89	0.9%
Sulfur Dioxide (million tons)	0.79	0.78	0.77	0.76	0.75	0.74	0.73	0.73	0.73	0.73	0.73	-1.4%
Nitrogen Oxide (million tons)	0.32	0.32	0.32	0.32	0.33	0.32	0.32	0.32	0.32	0.32	0.32	0.2%
Mercury (tons)	6.16	6.19	6.23	6.25	6.29	6.30	6.27	6.26	6.25	6.25	6.29	1.1%

**Table 63. Electric Power Projections for Electricity Market Module Region Mid-America Interconnected Network**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 64. Electric Power Projections for Electricity Market Module Region Mid-Continent Area Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	18.65	18.65	18.65	18.67	18.67	19.46	19.46	19.46	19.46	19.46	19.45	19.45	19.45
Other Fossil Steam 2/	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.52	0.52	0.52
Combined Cycle	0.61	0.69	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Combustion Turbine/Diesel	6.34	7.45	7.69	7.70	7.70	7.70	7.70	7.70	7.92	8.21	8.70	9.09	9.52
Nuclear Power	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	4.02	4.26	4.29	4.79	4.81	4.83	4.84	4.86	4.88	4.88	4.88	4.88	4.88
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.05	0.07
Total Capacity	33.31	34.74	35.25	35.78	35.79	36.60	36.62	36.64	36.89	37.19	37.65	38.04	38.50
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.01	0.01	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Combustion Turbine/Diesel	0.00	0.00	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.03	0.53	0.55	0.56	0.58	0.60	0.62	0.62	0.62	0.62	0.62
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	0.51	1.04	1.06	1.86	1.88	1.90	1.91	1.91	1.91	1.91	1.91
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.51	1.17	1.55	1.98
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.05	0.07
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.54	1.20	1.59	2.06
Cumulative Total Additions	0.00	0.00	0.51	1.04	1.06	1.86	1.88	1.90	2.15	2.45	3.12	3.51	3.97
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.16
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.21
End Use Sector 8/													
Coal	0.55	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Petroleum	0.04	0.03	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Natural Gas	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08
Other Gaseous Fuels	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Renewable Sources 4/	0.16	0.16	0.17	0.18	0.18	0.18	0.19	0.20	0.20	0.20	0.21	0.21	0.21
Other	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

**Table 64. Electric Power Projections for Electricity Market Module Region Mid-Continent Area Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	0.91	0.89	0.94	0.95	0.94	0.95	0.95	0.96	0.97	0.97	0.98	0.98	0.99
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	50.44	51.13	50.14	52.92	53.84	54.95	56.13	56.94	57.81	58.75	59.89	60.70	61.62
Commercial/Other	44.33	44.73	44.30	46.23	47.40	48.70	49.92	51.07	52.15	53.33	54.55	55.74	56.88
Industrial	47.18	47.25	48.70	49.98	50.58	51.10	52.03	53.00	53.51	54.01	54.43	54.74	55.34
Transportation	0.84	0.87	0.87	0.88	0.90	0.91	0.93	0.94	0.96	0.97	0.99	1.00	1.02
Total Sales	142.79	143.98	144.00	150.01	152.72	155.66	159.02	161.95	164.44	167.06	169.86	172.19	174.86
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	8.00	5.11	5.57	4.68	4.62	3.54	4.33	5.16	5.33	6.08	6.40	6.43	7.13
Gross International Exports	3.34	8.19	8.27	8.52	8.09	7.69	7.30	6.94	6.59	6.26	5.95	5.65	5.37
Gross Interregional Electricity Imports	4.35	10.00	14.16	10.46	8.74	7.06	6.62	6.90	6.66	6.79	7.11	7.26	6.69
Gross Interregional Electricity Exports	18.58	16.96	20.78	17.67	18.55	20.20	20.28	19.24	17.95	17.29	16.39	15.25	13.78
Purchases from Combined Heat and Power 8/	0.43	0.47	0.52	0.55	0.58	0.60	0.62	0.65	0.67	0.69	0.70	0.72	0.73
Electric Power Sector Generation for Customers	157.83	159.15	164.48	172.54	177.55	184.49	187.43	187.87	188.85	189.63	190.63	191.35	192.16
Total Net Energy for Load	148.69	149.57	155.67	162.04	164.85	167.80	171.41	174.40	176.96	179.63	182.50	184.86	187.57
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	116.90	120.43	122.17	127.37	131.88	138.88	141.62	141.30	141.70	141.95	142.21	142.34	142.46
Petroleum	0.77	1.04	0.99	1.05	1.08	1.08	1.09	1.12	1.14	1.16	1.18	1.21	1.23
Natural Gas	2.07	2.67	1.60	1.36	1.25	1.13	1.26	1.89	2.39	2.87	3.58	4.13	4.78
Nuclear	26.27	24.06	24.19	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	12.83	12.67	15.78	18.81	19.39	19.45	19.51	19.62	19.68	19.71	19.72	19.75	19.75
Total Generation	158.83	160.86	164.74	172.80	177.82	184.76	187.71	188.15	189.13	189.92	190.91	191.64	192.45
Sales to Customers	157.83	159.15	164.48	172.54	177.55	184.49	187.43	187.87	188.85	189.63	190.63	191.35	192.16
Generation for Own Use	1.00	1.72	0.26	0.27	0.27	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.03
<b>End Use Sector 8/</b>													
Coal	2.30	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
Petroleum	0.07	0.07	0.08	0.08	0.10	0.09	0.10	0.11	0.12	0.12	0.12	0.12	0.12
Natural Gas	0.39	0.36	0.37	0.38	0.41	0.42	0.44	0.45	0.47	0.49	0.50	0.52	0.54
Other Gaseous Fuels	0.08	0.08	0.08	0.08	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06
Renewable Sources 4/	0.84	0.86	0.91	0.95	0.96	0.98	1.00	1.02	1.04	1.05	1.06	1.07	1.08
Other	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Total	3.74	3.68	3.76	3.81	3.84	3.86	3.91	3.96	3.99	4.02	4.05	4.08	4.11
Sales to Utilities	0.43	0.47	0.52	0.55	0.58	0.60	0.62	0.65	0.67	0.69	0.70	0.72	0.73
Generation for Own Use	3.31	3.21	3.24	3.26	3.26	3.27	3.29	3.31	3.32	3.34	3.35	3.36	3.38
Total Electricity Generation	162.56	164.54	168.50	176.61	181.66	188.63	191.62	192.11	193.13	193.95	194.98	195.74	196.60
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	7.6	7.6	7.2	7.3	7.2	7.1	7.1	7.2	7.2	7.0	6.9	6.9	6.8
Commercial	6.0	6.0	5.8	5.7	5.7	5.6	5.7	5.7	5.8	5.6	5.6	5.6	5.6
Industrial	4.2	4.3	4.3	4.1	4.1	4.0	4.1	4.2	4.2	4.1	4.0	4.0	4.0
Transportation	5.3	5.5	5.6	5.3	5.2	5.1	5.2	5.2	5.3	5.1	5.1	5.1	5.1
All Sectors Average	6.0	6.0	5.8	5.7	5.7	5.6	5.7	5.7	5.8	5.6	5.5	5.6	5.5
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	3.3	3.3	3.2	3.1	3.0	3.0	3.0	3.1	3.1	3.0	2.9	2.9	2.9

**Table 64. Electric Power Projections for Electricity Market Module Region Mid-Continent Area Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9
Distribution	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.7
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.28	1.29	1.31	1.37	1.42	1.48	1.51	1.51	1.51	1.52	1.52	1.52	1.52
Natural Gas	0.02	0.03	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04
Oil	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	1.31	1.33	1.34	1.39	1.44	1.51	1.54	1.54	1.55	1.55	1.57	1.57	1.58
Fuel Prices (dollars per million Btu)													
Coal	0.95	0.91	0.94	0.94	0.95	0.95	0.95	1.03	1.06	1.05	1.04	1.05	1.05
Natural Gas	3.56	5.00	5.70	5.85	5.37	4.97	4.53	4.31	4.17	4.22	4.35	4.52	4.74
Distillate Fuel	5.72	6.54	7.19	6.90	6.18	5.76	5.65	5.41	5.22	5.18	5.22	5.26	5.32
Residual Fuel	3.48	5.01	5.70	5.52	4.85	4.48	4.26	3.94	3.89	3.94	3.48	3.60	3.65
Biomass	0.88	0.93	0.93	0.93	0.94	0.97	0.96	1.00	1.00	1.05	1.07	1.15	1.18
Emissions 10/													
Total Carbon (million tons)	37.69	38.03	38.73	40.36	41.79	43.67	44.55	44.50	44.76	44.93	45.14	45.27	45.42
Carbon Dioxide (million tons)	138.19	139.43	142.02	148.00	153.23	160.12	163.34	163.17	164.11	164.76	165.52	165.98	166.52
Sulfur Dioxide (million tons)	0.33	0.37	0.33	0.35	0.36	0.35	0.35	0.34	0.34	0.34	0.34	0.34	0.34
Nitrogen Oxide (million tons)	0.28	0.27	0.26	0.27	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Mercury (tons)	3.31	3.39	3.40	3.54	3.67	3.72	3.77	3.73	3.74	3.76	3.77	3.78	3.78

**Table 64. Electric Power Projections for Electricity Market Module Region Mid-Continent Area Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	20.37	20.79	20.80	20.80	20.80	20.80	21.15	21.46	21.72	21.98	22.35	0.8%
Other Fossil Steam 2/	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	-0.3%
Combined Cycle	0.93	0.93	0.93	0.93	0.93	0.93	0.93	1.12	1.30	1.30	1.30	2.9%
Combustion Turbine/Diesel	8.71	9.68	10.54	11.04	11.19	10.97	10.97	11.62	12.30	12.67	12.85	2.5%
Nuclear Power	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	0.0%
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.92	4.96	4.98	4.98	0.7%
Distributed Generation 5/	0.10	0.13	0.16	0.19	0.22	0.25	0.27	0.30	0.34	0.37	0.40	N/A
Total Capacity	38.65	40.06	40.96	41.50	41.67	41.49	41.86	43.06	44.27	44.95	45.53	1.2%
Cumulative Planned Additions 6/												
Coal Steam	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	N/A
Combustion Turbine/Diesel	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.92	1.34	1.35	1.35	1.35	1.35	1.70	2.01	2.27	2.53	2.90	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.37	0.37	0.37	N/A
Combustion Turbine/Diesel	2.60	4.02	4.89	5.39	5.54	5.54	5.54	6.19	6.87	7.24	7.42	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.09	0.10	0.10	N/A
Distributed Generation 5/	0.10	0.13	0.16	0.19	0.22	0.25	0.27	0.30	0.34	0.37	0.40	N/A
Total Unplanned Additions	3.63	5.50	6.40	6.94	7.11	7.14	7.52	8.72	9.92	10.61	11.19	N/A
Cumulative Total Additions	5.54	7.41	8.31	8.85	9.03	9.06	9.44	10.64	11.84	12.52	13.10	N/A
Cumulative Retirements 7/												
Coal Steam	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	N/A
Other Fossil Steam 3/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	1.59	2.05	2.05	2.05	2.05	2.27	2.27	2.27	2.27	2.27	2.27	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	1.63	2.09	2.09	2.09	2.09	2.31	2.31	2.31	2.31	2.31	2.31	N/A
End Use Sector 8/												
Coal	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.0%
Petroleum	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	4.2%
Natural Gas	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.11	2.9%
Other Gaseous Fuels	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	-0.3%
Renewable Sources 4/	0.21	0.22	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.28	0.29	2.7%
Other	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0%



**Table 64. Electric Power Projections for Electricity Market Module Region Mid-Continent Area Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	1.00	1.00	1.01	1.02	1.03	1.05	1.06	1.07	1.08	1.10	1.11	1.0%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	62.54	63.50	64.13	64.92	65.74	66.76	67.43	68.31	69.21	70.30	71.05	1.5%
Commercial/Other	58.06	59.23	60.42	61.64	62.89	64.17	65.46	66.80	68.19	69.65	71.14	2.1%
Industrial	55.77	55.97	56.52	57.26	57.91	58.35	58.67	59.03	59.45	59.83	60.17	1.1%
Transportation	1.04	1.05	1.07	1.09	1.10	1.12	1.14	1.16	1.17	1.19	1.21	1.5%
Total Sales	177.41	179.74	182.13	184.91	187.64	190.40	192.70	195.30	198.02	200.97	203.58	1.6%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	6.48	6.93	6.65	6.94	7.01	6.97	7.87	9.20	11.39	10.71	12.62	4.2%
Gross International Exports	5.10	4.85	4.60	4.37	4.15	3.95	3.75	3.56	3.38	3.21	3.05	-4.4%
Gross Interregional Electricity Imports	5.08	4.05	3.79	3.38	3.83	4.46	3.84	2.57	2.53	3.00	2.45	-6.2%
Gross Interregional Electricity Exports	16.29	16.87	15.18	12.74	10.99	9.13	9.40	10.08	11.59	10.62	11.93	-1.6%
Purchases from Combined Heat and Power 8/	0.75	0.77	0.79	0.82	0.84	0.87	0.90	0.93	0.95	0.97	0.99	3.4%
Electric Power Sector Generation for Customers	199.22	202.61	203.75	204.14	204.53	204.79	207.00	210.19	212.26	214.44	217.01	1.4%
Total Net Energy for Load	190.15	192.64	195.18	198.16	201.07	204.01	206.47	209.24	212.14	215.29	218.08	1.7%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	149.29	152.33	152.46	152.59	152.62	152.63	155.18	157.36	159.16	161.06	163.88	1.4%
Petroleum	1.31	1.32	1.35	1.35	1.35	1.36	1.38	1.41	1.43	1.45	2.12	3.3%
Natural Gas	5.00	5.33	6.31	6.58	6.95	7.18	6.83	7.69	7.78	7.98	7.05	4.5%
Nuclear	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	0.0%
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	19.69	19.69	19.69	19.69	19.68	19.68	19.67	19.80	19.96	20.02	20.02	2.1%
Total Generation	199.51	202.89	204.03	204.43	204.82	205.07	207.29	210.48	212.54	214.73	217.30	1.4%
Sales to Customers	199.22	202.61	203.75	204.14	204.53	204.79	207.00	210.19	212.26	214.44	217.01	1.4%
Generation for Own Use	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	-7.8%
Distributed Generation 5/	0.05	0.06	0.07	0.08	0.10	0.11	0.12	0.13	0.15	0.16	0.18	N/A
<b>End Use Sector 8/</b>												
Coal	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	0.0%
Petroleum	0.12	0.13	0.13	0.14	0.15	0.16	0.17	0.17	0.17	0.16	0.16	3.8%
Natural Gas	0.55	0.57	0.59	0.61	0.64	0.66	0.69	0.71	0.74	0.77	0.79	3.7%
Other Gaseous Fuels	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	-0.4%
Renewable Sources 4/	1.10	1.11	1.13	1.15	1.18	1.21	1.23	1.26	1.28	1.31	1.34	2.0%
Other	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.0%
Total	4.15	4.19	4.23	4.28	4.34	4.40	4.47	4.52	4.57	4.63	4.68	1.1%
Sales to Utilities	0.75	0.77	0.79	0.82	0.84	0.87	0.90	0.93	0.95	0.97	0.99	3.4%
Generation for Own Use	3.40	3.42	3.44	3.47	3.50	3.53	3.56	3.59	3.63	3.66	3.69	0.6%
Total Electricity Generation	203.71	207.14	208.34	208.79	209.26	209.59	211.88	215.13	217.26	219.52	222.15	1.4%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	6.8	6.9	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.7	6.7	-0.6%
Commercial	5.6	5.7	5.8	5.8	5.8	5.7	5.7	5.7	5.7	5.7	5.7	-0.2%
Industrial	4.0	4.1	4.2	4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1	-0.2%
Transportation	5.1	5.1	5.2	5.2	5.1	5.1	5.1	5.1	5.0	5.0	5.0	-0.4%
All Sectors Average	5.5	5.6	5.7	5.7	5.7	5.6	5.6	5.6	5.6	5.6	5.6	-0.3%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	2.9	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	-0.3%

**Table 64. Electric Power Projections for Electricity Market Module Region Mid-Continent Area Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0%
Distribution	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	-1.0%
Fuel Consumption (quadrillion Btu) 9/												
Coal	1.58	1.61	1.61	1.61	1.61	1.61	1.63	1.65	1.67	1.68	1.71	1.3%
Natural Gas	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.06	3.0%
Oil	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	2.8%
Total	1.64	1.67	1.68	1.68	1.69	1.69	1.71	1.73	1.75	1.77	1.79	1.4%
Fuel Prices (dollars per million Btu)												
Coal	1.06	1.06	1.06	1.06	1.07	1.06	1.06	1.07	1.06	1.06	1.03	0.5%
Natural Gas	4.87	4.87	4.87	5.00	5.20	5.35	5.46	5.55	5.59	5.68	5.72	0.6%
Distillate Fuel	5.35	5.42	5.47	5.62	5.76	5.87	6.02	6.14	6.21	6.22	6.15	-0.3%
Residual Fuel	3.72	3.79	3.84	3.89	3.94	4.00	4.06	4.12	4.17	4.24	4.30	-0.7%
Biomass	1.32	1.33	1.36	1.46	1.30	1.59	1.60	1.59	1.62	1.65	1.67	2.7%
Emissions 10/												
Total Carbon (million tons)	47.16	47.94	48.12	48.23	48.29	48.33	48.92	49.56	50.00	50.49	51.21	1.4%
Carbon Dioxide (million tons)	172.93	175.78	176.43	176.84	177.06	177.22	179.39	181.73	183.34	185.12	187.77	1.4%
Sulfur Dioxide (million tons)	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	-0.4%
Nitrogen Oxide (million tons)	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.6%
Mercury (tons)	3.82	3.82	3.82	3.83	3.83	3.83	3.84	3.85	3.85	3.86	3.89	0.6%

**Table 64. Electric Power Projections for Electricity Market Module Region Mid-Continent Area Power Pool**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 65. Electric Power Projections for Electricity Market Module Region Northeast Power Coordinating Council/New York**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.83	3.83	3.83
Other Fossil Steam 2/	12.58	12.58	12.58	12.58	12.58	12.58	12.58	12.58	12.58	12.58	10.75	10.75	10.75
Combined Cycle	3.86	5.12	5.12	5.89	5.89	5.89	5.89	5.89	5.89	5.89	5.89	5.89	6.04
Combustion Turbine/Diesel	4.64	4.72	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.94	4.94
Nuclear Power	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
Pumped Storage/Other 3/	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	4.80	4.87	4.94	5.16	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capacity	36.10	37.51	37.63	38.62	38.76	38.76	38.76	38.76	38.76	38.76	36.88	37.05	37.21
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Combustion Turbine/Diesel	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	0.05	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.17
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.33
Cumulative Total Additions	0.00	0.00	0.05	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	1.13	1.29
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83	1.83	1.83
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.88	1.88	1.88
End Use Sector 8/													
Coal	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Petroleum	0.11	0.08	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Natural Gas	0.35	0.36	0.38	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.48
Other Gaseous Fuels	0.20	0.19	0.19	0.19	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17
Renewable Sources 4/	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 65. Electric Power Projections for Electricity Market Module Region Northeast Power Coordinating Council/New York**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	0.89	0.86	0.97	0.98	0.96	0.97	0.98	1.00	1.01	1.02	1.03	1.05	1.06
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	48.70	49.30	47.28	48.65	49.55	50.67	51.66	52.01	52.32	52.55	52.81	52.87	53.14
Commercial/Other	69.93	69.07	66.77	68.49	70.37	72.71	74.92	76.54	77.87	79.03	79.67	80.29	81.01
Industrial	25.15	24.91	24.85	25.29	25.37	25.65	26.07	26.46	26.57	26.74	26.87	26.92	27.13
Transportation	1.29	1.32	1.29	1.31	1.33	1.35	1.37	1.40	1.42	1.44	1.46	1.48	1.50
Total Sales	145.08	144.60	140.19	143.74	146.62	150.38	154.02	156.40	158.18	159.76	160.81	161.56	162.78
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	13.90	9.99	11.26	11.98	13.01	12.96	14.07	13.65	14.55	15.39	14.96	13.95	13.78
Gross International Exports	2.95	4.51	5.46	5.35	5.24	4.72	4.24	3.82	3.38	3.04	2.88	2.64	2.41
Gross Interregional Electricity Imports	5.72	4.50	2.78	2.76	3.58	4.51	5.04	5.54	5.90	5.38	4.76	4.47	3.85
Gross Interregional Electricity Exports	9.40	8.85	9.55	9.61	10.58	10.03	9.55	9.48	9.74	9.97	9.65	9.28	8.84
Purchases from Combined Heat and Power 8/	0.48	0.48	0.54	0.56	0.66	0.68	0.74	0.80	0.84	0.87	0.90	0.94	0.97
Electric Power Sector Generation for Customers	134.05	131.75	150.93	153.87	155.76	157.72	158.87	160.65	160.96	162.06	163.60	164.95	166.20
Total Net Energy for Load	141.80	133.36	150.52	154.21	157.20	161.12	164.93	167.33	169.13	170.70	171.69	172.38	173.55
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	22.50	23.09	29.58	29.72	30.73	31.68	31.87	31.96	33.01	33.95	33.73	33.82	34.07
Petroleum	11.34	18.58	19.69	22.00	22.01	22.12	17.97	18.33	18.37	18.52	18.46	18.65	18.73
Natural Gas	37.20	26.11	33.73	31.97	31.97	32.49	37.63	38.92	39.23	39.91	41.58	42.69	43.83
Nuclear	39.62	40.68	41.42	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49
Pumped Storage/Other 3/	-0.92	-0.91	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57
Renewable Sources 4/	27.02	26.82	28.36	30.53	31.41	31.78	31.76	31.80	30.71	30.05	30.19	30.15	29.92
Total Generation	136.76	134.37	152.21	155.15	157.04	158.99	160.15	161.93	162.24	163.34	164.88	166.23	167.48
Sales to Customers	134.05	131.75	150.93	153.87	155.76	157.72	158.87	160.65	160.96	162.06	163.60	164.95	166.20
Generation for Own Use	2.71	2.62	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>End Use Sector 8/</b>													
Coal	0.68	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Petroleum	0.22	0.23	0.26	0.26	0.31	0.30	0.33	0.36	0.37	0.37	0.38	0.38	0.38
Natural Gas	1.22	1.11	1.16	1.19	1.28	1.31	1.36	1.41	1.46	1.51	1.56	1.61	1.66
Other Gaseous Fuels	0.25	0.24	0.25	0.25	0.17	0.17	0.17	0.18	0.18	0.19	0.19	0.19	0.20
Renewable Sources 4/	0.42	0.43	0.45	0.47	0.48	0.49	0.50	0.51	0.52	0.52	0.53	0.53	0.54
Other	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Total	2.84	2.74	2.85	2.90	2.97	3.00	3.10	3.18	3.26	3.32	3.38	3.45	3.52
Sales to Utilities	0.48	0.48	0.54	0.56	0.66	0.68	0.74	0.80	0.84	0.87	0.90	0.94	0.97
Generation for Own Use	2.36	2.26	2.31	2.33	2.30	2.32	2.35	2.39	2.42	2.45	2.48	2.51	2.54
Total Electricity Generation	139.60	137.11	155.06	158.05	160.01	162.00	163.25	165.11	165.50	166.67	168.27	169.68	170.99
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	13.8	14.3	12.7	12.5	11.7	11.1	11.1	11.4	11.5	11.8	12.4	12.4	12.5
Commercial	12.7	13.1	11.2	10.8	9.7	8.5	8.2	8.2	8.2	8.3	9.1	9.1	9.5
Industrial	5.3	6.0	5.4	5.2	4.8	4.5	4.6	4.7	4.7	4.8	5.3	5.4	5.6
Transportation	8.9	9.9	9.9	9.5	8.9	8.4	8.4	8.5	8.6	8.8	9.3	9.3	9.5
All Sectors Average	11.5	12.2	10.6	10.4	9.5	8.7	8.5	8.7	8.7	8.9	9.6	9.6	9.8
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	6.6	7.3	5.8	5.4	4.6	3.8	3.6	3.7	3.7	3.9	4.6	4.6	4.9

**Table 65. Electric Power Projections for Electricity Market Module Region Northeast Power Coordinating Council/New York**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Distribution	3.4	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.6	3.5	3.5	3.6	3.6
Fuel Consumption (quadrillion Btu) 9/													
Coal	0.30	0.30	0.30	0.30	0.31	0.32	0.32	0.32	0.33	0.34	0.34	0.34	0.34
Natural Gas	0.37	0.26	0.29	0.28	0.28	0.28	0.34	0.35	0.35	0.36	0.37	0.38	0.39
Oil	0.12	0.20	0.22	0.24	0.24	0.24	0.19	0.20	0.20	0.20	0.20	0.20	0.20
Total	0.80	0.75	0.81	0.82	0.83	0.84	0.85	0.87	0.88	0.90	0.91	0.92	0.93
Fuel Prices (dollars per million Btu)													
Coal	1.46	1.43	1.38	1.43	1.38	1.46	1.47	1.49	1.50	1.49	1.48	1.50	1.51
Natural Gas	4.11	6.24	6.12	5.91	5.12	4.64	4.36	4.23	4.07	4.08	4.14	4.24	4.41
Distillate Fuel	5.65	6.46	7.11	6.82	6.08	5.69	5.50	5.33	5.32	5.30	5.34	5.43	5.49
Residual Fuel	4.13	4.95	5.60	5.47	4.99	4.57	4.35	4.22	4.17	4.22	4.27	4.32	4.38
Biomass	0.69	0.69	0.69	1.60	1.97	2.01	2.01	2.06	1.95	1.77	1.78	1.78	1.76
Emissions 10/													
Total Carbon (million tons)	17.69	18.61	18.35	18.60	18.89	19.28	19.10	19.37	19.74	20.15	20.26	20.47	20.69
Carbon Dioxide (million tons)	64.87	68.25	67.27	68.21	69.25	70.69	70.02	71.01	72.39	73.88	74.29	75.05	75.85
Sulfur Dioxide (million tons)	0.36	0.36	0.42	0.43	0.45	0.39	0.35	0.31	0.31	0.32	0.32	0.31	0.31
Nitrogen Oxide (million tons)	0.06	0.06	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Mercury (tons)	1.43	1.82	1.76	1.57	1.70	1.50	1.46	1.08	1.16	1.24	1.19	1.14	1.15

**Table 65. Electric Power Projections for Electricity Market Module Region Northeast Power Coordinating Council/New York**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	3.83	3.83	3.83	3.83	3.83	3.83	4.18	4.60	5.11	5.61	5.98	2.0%
Other Fossil Steam 2/	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75	-0.7%
Combined Cycle	6.44	6.63	6.95	7.33	7.63	8.02	8.02	8.02	8.02	8.02	8.06	2.1%
Combustion Turbine/Diesel	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.65	4.71	0.0%
Nuclear Power	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	0.0%
Pumped Storage/Other 3/	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Renewable Sources 4/	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	0.4%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.05	0.07	N/A
Total Capacity	37.30	37.49	37.81	38.19	38.49	38.88	39.24	39.67	40.19	40.73	41.21	0.4%
Cumulative Planned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	N/A
Combustion Turbine/Diesel	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.77	1.28	1.78	2.15	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.56	0.74	1.06	1.44	1.74	2.14	2.14	2.14	2.14	2.14	2.17	N/A
Combustion Turbine/Diesel	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.26	0.32	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.05	0.07	N/A
Total Unplanned Additions	0.80	0.98	1.31	1.68	1.99	2.38	2.74	3.17	3.69	4.23	4.71	N/A
Cumulative Total Additions	1.76	1.95	2.27	2.65	2.95	3.34	3.70	4.13	4.65	5.19	5.67	N/A
Cumulative Retirements 7/												
Coal Steam	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Other Fossil Steam 3/	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	N/A
End Use Sector 8/												
Coal	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.0%
Petroleum	0.17	0.17	0.17	0.17	0.18	0.19	0.19	0.19	0.19	0.19	0.19	4.2%
Natural Gas	0.49	0.50	0.52	0.53	0.55	0.57	0.58	0.60	0.62	0.64	0.66	2.9%
Other Gaseous Fuels	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	-0.3%
Renewable Sources 4/	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.09	2.7%
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A

**Table 65. Electric Power Projections for Electricity Market Module Region Northeast Power Coordinating Council/New York**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	1.08	1.09	1.11	1.13	1.16	1.19	1.21	1.24	1.26	1.28	1.30	1.9%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	53.52	54.04	54.35	54.76	55.14	55.70	56.00	56.53	57.10	57.77	58.16	0.8%
Commercial/Other	81.90	82.87	84.00	85.11	86.12	87.19	88.36	89.65	91.01	92.39	93.79	1.4%
Industrial	27.17	27.07	27.25	27.49	27.68	27.83	27.88	28.02	28.21	28.38	28.51	0.6%
Transportation	1.53	1.55	1.57	1.60	1.63	1.65	1.68	1.71	1.73	1.76	1.79	1.4%
Total Sales	164.11	165.54	167.17	168.95	170.57	172.37	173.92	175.91	178.05	180.30	182.25	1.1%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	15.47	15.20	14.38	13.77	13.17	10.46	9.66	8.58	7.13	4.77	4.57	-3.5%
Gross International Exports	2.18	1.96	1.74	1.53	1.33	1.13	0.94	0.75	0.66	0.58	0.50	-9.5%
Gross Interregional Electricity Imports	1.08	0.94	0.93	0.89	0.88	0.93	0.74	0.67	0.66	1.17	1.16	-6.0%
Gross Interregional Electricity Exports	8.11	7.57	7.25	6.95	6.99	4.95	4.88	5.34	5.47	4.82	4.97	-2.6%
Purchases from Combined Heat and Power 8/	1.01	1.05	1.09	1.14	1.20	1.27	1.33	1.38	1.42	1.46	1.51	5.4%
Electric Power Sector Generation for Customers	167.58	168.71	170.70	172.68	174.81	177.08	179.38	182.87	186.59	190.04	192.36	1.7%
Total Net Energy for Load	174.86	176.38	178.12	180.01	181.74	183.65	185.30	187.41	189.68	192.06	194.13	1.7%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	34.04	33.98	34.01	34.08	34.09	34.11	36.61	39.65	43.27	46.79	49.37	3.5%
Petroleum	18.58	18.56	18.53	22.47	23.84	23.75	23.83	24.03	24.13	24.16	24.15	1.2%
Natural Gas	45.39	46.61	48.62	46.58	47.32	49.67	49.39	49.64	49.65	49.57	49.33	2.9%
Nuclear	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	0.1%
Pumped Storage/Other 3/	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-2.1%
Renewable Sources 4/	29.93	29.92	29.91	29.91	29.91	29.92	29.91	29.91	29.90	29.89	29.88	0.5%
Total Generation	168.87	169.99	171.98	173.97	176.09	178.36	180.67	184.15	187.87	191.32	193.64	1.7%
Sales to Customers	167.58	168.71	170.70	172.68	174.81	177.08	179.38	182.87	186.59	190.04	192.36	1.7%
Generation for Own Use	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	-3.2%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	N/A
<b>End Use Sector 8/</b>												
Coal	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.0%
Petroleum	0.40	0.42	0.43	0.45	0.47	0.50	0.53	0.53	0.53	0.53	0.53	3.8%
Natural Gas	1.72	1.77	1.84	1.90	1.98	2.05	2.13	2.21	2.30	2.38	2.47	3.7%
Other Gaseous Fuels	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	-0.4%
Renewable Sources 4/	0.55	0.55	0.56	0.57	0.59	0.60	0.61	0.63	0.64	0.65	0.67	2.0%
Other	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.0%
Total	3.60	3.68	3.77	3.86	3.98	4.10	4.22	4.32	4.42	4.51	4.62	2.4%
Sales to Utilities	1.01	1.05	1.09	1.14	1.20	1.27	1.33	1.38	1.42	1.46	1.51	5.4%
Generation for Own Use	2.59	2.63	2.68	2.72	2.78	2.83	2.89	2.94	3.00	3.05	3.11	1.4%
Total Electricity Generation	172.46	173.67	175.75	177.83	180.07	182.46	184.89	188.47	192.30	195.86	198.29	1.7%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	12.7	12.7	12.7	12.8	12.9	12.9	13.0	13.0	13.0	13.1	13.1	-0.4%
Commercial	9.8	9.9	10.0	10.2	10.3	10.4	10.4	10.5	10.4	10.7	10.7	-0.9%
Industrial	5.8	5.8	5.9	6.0	6.2	6.2	6.3	6.3	6.2	6.4	6.4	0.3%
Transportation	9.6	9.6	9.6	9.7	9.8	9.8	9.8	9.8	9.8	9.9	9.9	0.0%
All Sectors Average	10.1	10.1	10.2	10.3	10.5	10.5	10.6	10.6	10.6	10.8	10.8	-0.6%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	5.1	5.2	5.2	5.4	5.5	5.6	5.6	5.7	5.7	5.9	5.9	-1.0%



**Table 65. Electric Power Projections for Electricity Market Module Region Northeast Power Coordinating Council/New York**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	-0.2%
Distribution	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	0.1%
Fuel Consumption (quadrillion Btu) 9/												
Coal	0.34	0.34	0.34	0.34	0.34	0.35	0.36	0.38	0.41	0.43	0.45	1.9%
Natural Gas	0.40	0.40	0.42	0.39	0.38	0.40	0.40	0.40	0.40	0.40	0.40	2.0%
Oil	0.20	0.20	0.20	0.24	0.25	0.25	0.25	0.26	0.26	0.26	0.26	1.2%
Total	0.94	0.94	0.96	0.97	0.98	1.00	1.01	1.04	1.07	1.09	1.11	1.8%
Fuel Prices (dollars per million Btu)												
Coal	1.51	1.51	1.51	1.51	1.51	1.51	1.50	1.50	1.51	1.51	1.52	0.3%
Natural Gas	4.52	4.52	4.58	4.73	4.86	4.95	5.04	5.10	5.09	5.16	5.23	-0.8%
Distillate Fuel	5.54	5.59	5.64	5.74	5.81	5.86	5.92	5.97	6.02	6.07	6.13	-0.2%
Residual Fuel	4.43	4.48	4.54	4.60	4.67	4.72	4.78	4.83	4.89	4.94	5.00	0.0%
Biomass	1.77	1.77	1.75	1.75	1.76	1.76	1.75	1.75	1.74	1.72	1.68	4.1%
Emissions 10/												
Total Carbon (million tons)	20.79	20.90	21.10	21.65	21.98	22.21	22.69	23.37	24.11	24.82	25.31	1.4%
Carbon Dioxide (million tons)	76.24	76.62	77.37	79.40	80.61	81.43	83.19	85.69	88.42	91.02	92.80	1.4%
Sulfur Dioxide (million tons)	0.31	0.30	0.30	0.33	0.33	0.34	0.34	0.34	0.34	0.33	0.33	-0.3%
Nitrogen Oxide (million tons)	0.08	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.08	0.08	0.08	1.8%
Mercury (tons)	1.21	1.20	1.20	1.19	1.17	1.14	1.09	1.12	1.13	1.14	1.23	-1.8%

**Table 65. Electric Power Projections for Electricity Market Module Region Northeast Power Coordinating Council/New York**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 66. Electric Power Projections for Electricity Market Module Northeast Power Coordinating Council/New England**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.86	2.86	2.86
Other Fossil Steam 2/	7.41	7.41	7.08	7.08	7.08	7.08	7.08	7.08	7.08	7.08	6.09	5.08	4.05
Combined Cycle	7.58	9.97	9.97	9.97	10.46	10.46	10.46	10.46	10.32	10.32	10.32	10.32	10.32
Combustion Turbine/Diesel	2.31	2.34	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
Nuclear Power	4.34	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
Pumped Storage/Other 3/	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	2.76	2.78	2.79	2.80	2.80	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capacity	28.93	31.38	31.53	31.54	32.04	32.04	32.04	32.04	31.90	31.90	30.88	29.87	28.84
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Combustion Turbine/Diesel	0.00	0.00	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	0.48	0.49	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative Total Additions	0.00	0.00	0.48	0.49	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02
Other Fossil Steam 3/	0.00	0.00	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	1.32	2.33	3.36
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.14	0.14	0.14
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.33	0.33	0.33	0.33	0.33	0.33	0.47	0.47	1.48	2.49	3.52
End Use Sector 8/													
Coal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Petroleum	0.19	0.14	0.29	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.29	0.29	0.29
Natural Gas	0.34	0.34	0.36	0.37	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.46
Other Gaseous Fuels	0.35	0.34	0.34	0.34	0.29	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30
Renewable Sources 4/	0.62	0.63	0.67	0.70	0.71	0.73	0.75	0.77	0.79	0.80	0.81	0.82	0.83
Other	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

**Table 66. Electric Power Projections for Electricity Market Module Northeast Power Coordinating Council/New England**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	1.53	1.48	1.68	1.72	1.70	1.72	1.76	1.79	1.82	1.85	1.87	1.89	1.91
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	43.08	44.44	44.90	46.06	46.97	48.10	49.14	49.64	50.10	50.43	50.88	51.09	51.43
Commercial/Other	51.07	51.67	52.32	53.65	55.08	56.83	58.54	60.02	61.36	62.58	63.69	64.71	65.52
Industrial	21.42	21.40	22.68	23.09	23.03	23.24	23.64	23.97	24.09	24.22	24.33	24.39	24.57
Transportation	1.05	1.09	1.13	1.15	1.17	1.19	1.21	1.23	1.25	1.27	1.30	1.32	1.34
Total Sales	116.62	118.59	121.03	123.94	126.26	129.37	132.53	134.87	136.81	138.51	140.21	141.50	142.86
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	6.18	5.71	4.94	6.98	6.83	6.34	5.85	5.35	5.94	5.64	5.24	5.15	5.35
Gross International Exports	0.19	0.54	0.54	0.56	0.55	0.54	0.52	0.51	0.50	0.49	0.49	0.49	0.49
Gross Interregional Electricity Imports	7.83	7.31	10.23	10.23	11.15	10.78	10.56	10.49	10.55	10.67	10.66	10.18	9.52
Gross Interregional Electricity Exports	0.53	0.53	0.04	0.03	0.02	0.03	0.04	0.04	0.34	0.39	0.39	0.14	0.22
Purchases from Combined Heat and Power 8/	1.48	1.57	1.84	1.96	2.30	2.36	2.61	2.83	2.99	3.09	3.19	3.28	3.39
Electric Power Sector Generation for Customers	106.80	108.99	113.47	114.34	115.62	119.65	123.42	126.14	127.60	129.44	131.46	132.97	134.72
Total Net Energy for Load	121.58	122.50	129.91	132.93	135.32	138.57	141.88	144.25	146.24	147.95	149.66	150.94	152.27
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	18.66	19.22	20.05	20.60	21.07	21.46	21.63	21.63	21.63	21.63	21.62	21.62	21.62
Petroleum	10.00	12.24	8.28	8.62	8.53	9.19	9.66	10.75	10.58	11.48	12.85	13.25	14.76
Natural Gas	42.07	39.63	43.45	42.85	43.55	46.53	49.67	51.30	52.93	53.75	54.40	55.51	55.75
Nuclear	33.94	34.78	35.33	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38
Pumped Storage/Other 3/	-0.85	-0.70	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52
Renewable Sources 4/	12.31	12.98	11.42	11.97	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17
Total Generation	116.13	118.14	118.02	118.89	120.17	124.20	127.98	130.69	132.16	133.88	135.90	137.40	139.16
Sales to Customers	106.80	108.99	113.47	114.34	115.62	119.65	123.42	126.14	127.60	129.44	131.46	132.97	134.72
Generation for Own Use	9.33	9.15	4.55	4.55	4.55	4.55	4.56	4.56	4.56	4.44	4.44	4.44	4.44
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>End Use Sector 8/</b>													
Coal	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Petroleum	1.13	1.18	1.31	1.31	1.56	1.55	1.69	1.81	1.89	1.90	1.91	1.93	1.96
Natural Gas	2.81	2.55	2.68	2.74	2.94	3.02	3.13	3.24	3.36	3.47	3.58	3.70	3.83
Other Gaseous Fuels	1.25	1.25	1.25	1.25	0.87	0.87	0.89	0.91	0.93	0.95	0.97	0.99	1.01
Renewable Sources 4/	3.20	3.29	3.48	3.63	3.68	3.74	3.83	3.91	3.96	4.01	4.06	4.09	4.14
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.59	8.46	8.93	9.14	9.25	9.37	9.73	10.08	10.34	10.53	10.72	10.91	11.13
Sales to Utilities	1.48	1.57	1.84	1.96	2.30	2.36	2.61	2.83	2.99	3.09	3.19	3.28	3.39
Generation for Own Use	7.11	6.89	7.09	7.17	6.95	7.01	7.13	7.24	7.35	7.44	7.54	7.63	7.74
Total Electricity Generation	124.72	126.60	126.95	128.03	129.42	133.57	137.71	140.77	142.50	144.40	146.62	148.31	150.29
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	11.4	11.6	11.9	11.6	10.7	10.1	10.0	10.1	10.2	10.5	10.7	10.8	11.2
Commercial	10.1	10.4	10.1	9.9	9.1	8.3	7.9	7.8	7.7	7.8	8.0	8.3	8.9
Industrial	8.7	8.9	9.2	9.0	8.3	7.6	7.1	6.8	6.4	6.3	6.3	6.5	6.9
Transportation	8.9	9.6	10.1	9.8	9.0	8.5	8.3	8.3	8.3	8.5	8.6	8.8	9.1
All Sectors Average	10.4	10.6	10.6	10.4	9.6	8.8	8.6	8.5	8.4	8.5	8.7	8.9	9.4
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	6.1	6.4	6.4	6.2	5.3	4.7	4.4	4.3	4.2	4.4	4.5	4.7	5.2

**Table 66. Electric Power Projections for Electricity Market Module Northeast Power Coordinating Council/New England**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Distribution	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Fuel Consumption (quadrillion Btu) 9/													
Coal	0.21	0.21	0.20	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Natural Gas	0.35	0.32	0.34	0.33	0.34	0.36	0.39	0.40	0.41	0.42	0.42	0.43	0.43
Oil	0.11	0.13	0.09	0.09	0.09	0.09	0.10	0.11	0.11	0.12	0.13	0.13	0.15
Total	0.66	0.65	0.63	0.63	0.64	0.67	0.70	0.73	0.74	0.75	0.77	0.78	0.80
Fuel Prices (dollars per million Btu)													
Coal	1.65	1.60	1.62	1.68	1.63	1.61	1.61	1.67	1.67	1.67	1.66	1.66	1.67
Natural Gas	4.01	5.89	6.00	5.90	5.21	4.88	4.64	4.51	4.40	4.44	4.49	4.59	4.72
Distillate Fuel	5.66	6.47	7.12	6.85	6.13	5.74	5.55	5.37	5.37	5.34	5.39	5.48	5.54
Residual Fuel	3.88	4.64	5.25	5.13	4.46	4.04	3.86	3.73	3.68	3.74	3.81	3.86	3.93
Biomass	2.13	2.13	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14
Emissions 10/													
Total Carbon (million tons)	12.91	14.16	13.21	13.36	13.57	14.18	14.71	15.15	15.34	15.63	16.00	16.23	16.60
Carbon Dioxide (million tons)	47.33	51.92	48.43	48.98	49.74	51.99	53.92	55.56	56.26	57.31	58.66	59.52	60.86
Sulfur Dioxide (million tons)	0.16	0.19	0.17	0.16	0.14	0.14	0.15	0.13	0.13	0.13	0.14	0.14	0.15
Nitrogen Oxide (million tons)	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06
Mercury (tons)	0.52	0.55	0.53	0.52	0.47	0.48	0.48	0.43	0.45	0.43	0.45	0.45	0.46

**Table 66. Electric Power Projections for Electricity Market Module Northeast Power Coordinating Council/New England**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	3.42	0.8%
Other Fossil Steam 2/	4.05	4.05	4.05	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	-2.8%
Combined Cycle	10.59	10.78	11.26	11.84	12.31	12.82	13.31	13.69	14.22	14.84	14.84	1.8%
Combustion Turbine/Diesel	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.97	2.97	2.99	3.01	1.2%
Nuclear Power	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	0.0%
Pumped Storage/Other 3/	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	2.88	3.47	3.50	3.53	3.56	3.61	3.66	3.69	3.74	3.74	3.74	1.4%
Distributed Generation 5/	0.01	0.03	0.05	0.07	0.09	0.11	0.14	0.16	0.19	0.21	0.24	N/A
Total Capacity	29.20	30.00	30.53	31.08	31.62	32.19	32.75	33.35	33.95	34.63	35.23	0.5%
Cumulative Planned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	N/A
Combustion Turbine/Diesel	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.26	0.46	0.94	1.51	1.99	2.50	2.99	3.36	3.89	4.52	4.52	N/A
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.19	0.21	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.09	0.68	0.70	0.73	0.77	0.81	0.86	0.90	0.94	0.94	0.94	N/A
Distributed Generation 5/	0.01	0.03	0.05	0.07	0.09	0.11	0.14	0.16	0.19	0.21	0.24	N/A
Total Unplanned Additions	0.36	1.16	1.69	2.31	2.85	3.43	3.99	4.58	5.18	5.86	6.47	N/A
Cumulative Total Additions	1.34	2.14	2.67	3.30	3.83	4.41	4.97	5.57	6.17	6.85	7.45	N/A
Cumulative Retirements 7/												
Coal Steam	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	N/A
Other Fossil Steam 3/	3.36	3.36	3.36	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	N/A
Combined Cycle	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	N/A
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	3.52	3.52	3.52	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	N/A
End Use Sector 8/												
Coal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%
Petroleum	0.29	0.29	0.29	0.31	0.32	0.33	0.34	0.34	0.34	0.34	0.33	4.2%
Natural Gas	0.47	0.48	0.49	0.51	0.53	0.54	0.56	0.58	0.60	0.62	0.64	2.9%
Other Gaseous Fuels	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	-0.3%
Renewable Sources 4/	0.85	0.85	0.88	0.90	0.93	0.96	0.99	1.02	1.06	1.10	1.14	2.7%
Other	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.0%

**Table 66. Electric Power Projections for Electricity Market Module Northeast Power Coordinating Council/New England**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	1.94	1.97	2.00	2.06	2.12	2.17	2.23	2.28	2.34	2.40	2.46	2.3%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	51.92	52.54	52.96	53.47	53.94	54.63	55.02	55.61	56.25	57.02	57.53	1.2%
Commercial/Other	66.51	67.68	68.99	70.26	71.49	72.77	74.13	75.55	77.07	78.67	80.34	2.0%
Industrial	24.61	24.55	24.71	24.94	25.12	25.25	25.32	25.45	25.62	25.76	25.87	0.9%
Transportation	1.36	1.38	1.41	1.43	1.46	1.49	1.51	1.54	1.57	1.60	1.63	1.8%
Total Sales	144.40	146.15	148.07	150.10	152.02	154.13	155.98	158.16	160.52	163.05	165.36	1.5%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	7.13	6.79	6.17	5.75	5.35	9.13	9.12	8.97	9.06	8.02	7.60	1.3%
Gross International Exports	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	-0.4%
Gross Interregional Electricity Imports	8.51	7.92	7.48	6.69	6.41	4.33	3.90	4.31	4.56	4.65	4.79	-1.9%
Gross Interregional Electricity Exports	0.37	0.37	0.38	0.38	0.38	0.39	0.40	0.39	0.39	0.76	0.64	0.9%
Purchases from Combined Heat and Power 8/	3.52	3.64	3.78	3.95	4.17	4.43	4.67	4.80	4.94	5.06	5.19	5.6%
Electric Power Sector Generation for Customers	135.51	138.18	141.15	144.33	146.84	147.13	149.30	151.20	153.23	157.11	159.61	1.7%
Total Net Energy for Load	153.81	155.67	157.70	159.85	161.89	164.14	166.10	168.40	170.91	173.59	176.05	1.7%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	25.72	1.3%
Petroleum	14.03	13.71	13.37	13.98	14.25	13.69	13.78	13.79	13.45	13.53	13.14	0.3%
Natural Gas	56.85	57.63	60.85	63.32	65.44	66.13	68.05	69.82	72.02	75.82	74.61	2.9%
Nuclear	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	0.1%
Pumped Storage/Other 3/	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-1.3%
Renewable Sources 4/	12.59	14.79	14.89	14.98	15.11	15.27	15.43	15.55	15.72	15.72	15.72	0.9%
Total Generation	139.95	142.62	145.59	148.76	151.28	151.56	153.74	155.64	157.67	161.55	164.04	1.5%
Sales to Customers	135.51	138.18	141.15	144.33	146.84	147.13	149.30	151.20	153.23	157.11	159.61	1.7%
Generation for Own Use	4.44	4.44	4.44	4.44	4.44	4.44	4.44	4.44	4.44	4.44	4.44	-3.2%
Distributed Generation 5/	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.11	N/A
<b>End Use Sector 8/</b>												
Coal	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.0%
Petroleum	2.04	2.13	2.20	2.27	2.40	2.54	2.71	2.72	2.71	2.68	2.68	3.8%
Natural Gas	3.95	4.08	4.23	4.38	4.55	4.73	4.91	5.09	5.28	5.48	5.68	3.7%
Other Gaseous Fuels	1.02	1.03	1.05	1.06	1.07	1.08	1.09	1.10	1.12	1.13	1.14	-0.4%
Renewable Sources 4/	4.20	4.23	4.31	4.41	4.51	4.61	4.71	4.80	4.91	5.01	5.11	2.0%
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total	11.41	11.68	11.98	12.32	12.73	13.16	13.62	13.91	14.22	14.50	14.81	2.6%
Sales to Utilities	3.52	3.64	3.78	3.95	4.17	4.43	4.67	4.80	4.94	5.06	5.19	5.6%
Generation for Own Use	7.89	8.04	8.20	8.37	8.56	8.74	8.94	9.11	9.28	9.44	9.63	1.5%
Total Electricity Generation	151.36	154.30	157.59	161.11	164.04	164.78	167.41	169.62	171.97	176.15	178.96	1.6%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	11.1	11.1	11.1	11.2	11.3	11.3	11.3	11.4	11.3	11.4	11.4	-0.1%
Commercial	8.9	9.0	9.0	9.1	9.2	9.3	9.3	9.4	9.3	9.3	9.3	-0.5%
Industrial	6.9	6.9	7.0	7.1	7.2	7.3	7.3	7.4	7.4	7.4	7.4	-0.8%
Transportation	9.0	9.0	9.0	9.0	9.1	9.1	9.2	9.2	9.1	9.2	9.2	-0.2%
All Sectors Average	9.4	9.4	9.4	9.5	9.6	9.7	9.7	9.8	9.7	9.8	9.8	-0.4%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	5.2	5.3	5.3	5.4	5.5	5.6	5.6	5.7	5.6	5.7	5.7	-0.5%

**Table 66. Electric Power Projections for Electricity Market Module Northeast Power Coordinating Council/New England**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.1%
Distribution	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	-0.4%
Fuel Consumption (quadrillion Btu) 9/												
Coal	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.25	0.9%
Natural Gas	0.44	0.44	0.46	0.47	0.48	0.49	0.50	0.51	0.52	0.54	0.53	2.4%
Oil	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.13	0.0%
Total	0.80	0.80	0.81	0.83	0.85	0.84	0.85	0.86	0.87	0.90	0.92	1.5%
Fuel Prices (dollars per million Btu)												
Coal	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.68	1.68	1.71	0.3%
Natural Gas	4.77	4.82	4.86	5.02	5.17	5.18	5.30	5.40	5.41	5.53	5.57	-0.3%
Distillate Fuel	5.59	5.63	5.68	5.79	5.86	5.91	5.96	6.02	6.07	6.12	6.17	-0.2%
Residual Fuel	3.98	4.02	4.07	4.13	4.19	4.23	4.29	4.34	4.39	4.45	4.50	-0.1%
Biomass	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	0.0%
Emissions 10/												
Total Carbon (million tons)	16.52	16.51	16.76	17.10	17.33	17.23	17.42	17.58	17.70	18.10	18.70	1.3%
Carbon Dioxide (million tons)	60.56	60.55	61.45	62.70	63.55	63.18	63.86	64.47	64.92	66.36	68.56	1.3%
Sulfur Dioxide (million tons)	0.15	0.15	0.14	0.15	0.15	0.15	0.15	0.15	0.14	0.15	0.14	-1.2%
Nitrogen Oxide (million tons)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	1.2%
Mercury (tons)	0.46	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	-0.9%



**Table 66. Electric Power Projections for Electricity Market Module Northeast Power Coordinating Council/New England**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 67. Electric Power Projections for Electricity Market Module Region Florida Reliability Coordinating Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	11.46	11.46	10.96	10.96	10.96	10.96	10.96	10.96	10.96	10.96	10.96	10.96	10.96
Other Fossil Steam 2/	12.00	11.31	11.31	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.06	10.76	10.76
Combined Cycle	7.05	9.16	10.74	11.44	11.44	11.44	11.44	12.46	13.99	13.99	14.10	14.87	15.91
Combustion Turbine/Diesel	10.09	10.09	10.06	10.06	9.92	10.03	10.91	11.11	10.97	12.29	13.38	13.99	14.05
Nuclear Power	3.90	3.90	3.90	3.90	3.90	3.90	3.92	3.92	3.92	3.92	3.92	3.92	3.92
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.55	0.55	0.55	0.55	0.55	0.57	0.57	0.57	0.62	0.62	0.62	0.62	0.69
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capacity	45.04	46.47	47.52	48.02	47.89	48.01	48.92	50.13	51.57	52.89	54.04	55.13	56.29
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	1.58	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	1.58	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02	2.55	2.55	2.65	3.43	4.47
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.18	1.09	1.29	1.41	2.83	3.93	4.54	4.60
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.07	0.07	0.07	0.07	0.14
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.20	1.11	2.33	4.03	5.46	6.66	8.05	9.21
Cumulative Total Additions	0.00	0.00	1.58	2.28	2.28	2.48	3.39	4.61	6.31	7.74	8.93	10.33	11.49
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
Other Fossil Steam 3/	0.00	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.24	0.55	0.55
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.03	0.03	0.16	0.24	0.27	0.27	0.53	0.64	0.64	0.64	0.64
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.54	0.73	0.86	0.94	0.97	0.97	1.23	1.34	1.38	1.69	1.69
End Use Sector 8/													
Coal	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Petroleum	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Natural Gas	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.12
Other Gaseous Fuels	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04
Renewable Sources 4/	0.16	0.16	0.17	0.18	0.18	0.18	0.19	0.19	0.20	0.20	0.20	0.20	0.21
Other	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41

**Table 67. Electric Power Projections for Electricity Market Module Region Florida Reliability Coordinating Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	0.79	0.79	0.82	0.83	0.83	0.84	0.84	0.85	0.86	0.87	0.87	0.88	0.88
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	102.00	106.12	106.73	109.86	112.36	115.64	119.18	121.96	124.81	127.54	130.50	132.80	135.35
Commercial/Other	78.75	80.83	81.94	83.82	86.59	89.83	93.05	96.10	99.06	102.02	104.99	107.98	110.94
Industrial	16.39	16.92	17.34	17.75	17.78	17.93	18.29	18.65	18.82	19.07	19.32	19.51	19.80
Transportation	1.09	1.14	1.15	1.18	1.21	1.24	1.27	1.30	1.34	1.37	1.40	1.43	1.46
Total Sales	198.24	205.02	207.15	212.61	217.94	224.64	231.79	238.02	244.03	250.00	256.21	261.72	267.56
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross Interregional Electricity Imports	35.11	37.99	38.69	39.67	40.35	41.37	42.67	43.71	40.21	40.39	40.40	39.91	39.47
Gross Interregional Electricity Exports	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Purchases from Combined Heat and Power 8/	0.42	0.47	0.53	0.56	0.62	0.63	0.68	0.72	0.75	0.77	0.79	0.81	0.84
Electric Power Sector Generation for Customers	193.48	193.41	180.85	185.48	190.28	196.21	202.33	207.66	217.35	223.32	229.69	235.83	242.24
Total Net Energy for Load	229.01	231.01	220.06	225.72	231.25	238.22	245.68	252.08	258.31	264.48	270.88	276.55	282.54
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	64.26	58.90	71.39	73.85	75.99	78.04	79.00	79.49	80.34	80.61	80.96	81.18	81.40
Petroleum	33.53	36.94	36.86	36.85	36.83	37.19	37.30	37.38	37.18	37.18	37.34	37.20	37.44
Natural Gas	59.59	64.11	39.09	41.04	43.61	46.90	51.65	56.39	65.21	70.74	76.52	82.57	88.21
Nuclear	33.70	30.98	31.76	31.86	31.89	31.93	32.13	32.13	32.13	32.13	32.13	32.13	32.13
Pumped Storage/Other 3/	0.31	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	3.79	3.99	3.73	3.88	3.96	4.17	4.28	4.30	4.52	4.69	4.76	4.78	5.09
Total Generation	195.18	195.16	182.83	187.48	192.29	198.23	204.36	209.68	219.38	225.35	231.72	237.86	244.26
Sales to Customers	193.48	193.41	180.85	185.48	190.28	196.21	202.33	207.66	217.35	223.32	229.69	235.83	242.24
Generation for Own Use	1.70	1.75	1.98	2.00	2.01	2.02	2.03	2.03	2.03	2.03	2.03	2.03	2.03
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>End Use Sector 8/</b>													
Coal	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Petroleum	0.13	0.13	0.15	0.15	0.17	0.17	0.19	0.20	0.21	0.21	0.21	0.22	0.22
Natural Gas	0.60	0.55	0.57	0.59	0.63	0.65	0.67	0.69	0.72	0.74	0.77	0.79	0.82
Other Gaseous Fuels	0.14	0.14	0.14	0.14	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11
Renewable Sources 4/	0.98	1.01	1.07	1.11	1.13	1.15	1.17	1.20	1.22	1.23	1.24	1.25	1.27
Other	1.21	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34
Total	3.18	3.29	3.39	3.45	3.49	3.52	3.59	3.66	3.71	3.75	3.79	3.83	3.88
Sales to Utilities	0.42	0.47	0.53	0.56	0.62	0.63	0.68	0.72	0.75	0.77	0.79	0.81	0.84
Generation for Own Use	2.77	2.82	2.86	2.89	2.87	2.89	2.91	2.94	2.96	2.98	3.00	3.02	3.04
Total Electricity Generation	198.37	198.45	186.22	190.93	195.78	201.75	207.95	213.34	223.09	229.10	235.51	241.69	248.15
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	8.4	8.6	9.6	9.9	9.6	9.3	9.1	9.0	9.0	8.9	8.8	8.9	8.9
Commercial	6.8	7.2	8.0	8.3	8.1	7.8	7.7	7.6	7.6	7.6	7.6	7.6	7.7
Industrial	5.4	5.5	6.1	6.3	6.2	6.0	5.9	5.8	5.8	5.8	5.8	5.8	5.9
Transportation	7.2	7.0	7.4	7.7	7.4	7.1	7.0	6.9	6.9	6.8	6.8	6.9	6.9
All Sectors Average	7.5	7.8	8.7	9.0	8.7	8.4	8.2	8.2	8.2	8.1	8.1	8.1	8.2
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	5.0	5.3	6.2	6.4	6.2	5.9	5.7	5.6	5.5	5.4	5.4	5.4	5.5

**Table 67. Electric Power Projections for Electricity Market Module Region Florida Reliability Coordinating Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7
Distribution	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0
Fuel Consumption (quadrillion Btu) 9/													
Coal	0.70	0.73	0.70	0.72	0.74	0.76	0.77	0.78	0.79	0.79	0.79	0.80	0.80
Natural Gas	0.52	0.53	0.33	0.35	0.37	0.40	0.44	0.47	0.53	0.57	0.61	0.65	0.69
Oil	0.34	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Total	1.56	1.64	1.41	1.45	1.49	1.54	1.59	1.63	1.70	1.74	1.79	1.83	1.87
Fuel Prices (dollars per million Btu)													
Coal	1.67	1.55	1.61	1.70	1.67	1.68	1.66	1.65	1.66	1.66	1.67	1.68	1.68
Natural Gas	4.11	5.96	6.24	6.14	5.36	4.86	4.55	4.55	4.43	4.56	4.67	4.79	5.03
Distillate Fuel	5.52	6.31	6.94	6.68	6.00	5.61	5.42	5.23	5.13	5.09	5.14	5.17	5.24
Residual Fuel	3.93	4.71	5.33	5.21	4.93	4.51	4.32	4.18	4.13	4.18	4.23	4.28	4.34
Biomass	0.69	0.69	0.69	0.97	1.04	1.09	1.27	1.41	1.37	1.38	1.40	1.40	1.44
Emissions 10/													
Total Carbon (million tons)	33.75	34.95	33.89	34.80	35.71	36.83	37.76	38.42	39.56	40.31	41.15	41.80	42.49
Carbon Dioxide (million tons)	123.74	128.15	124.25	127.61	130.94	135.05	138.44	140.87	145.06	147.80	150.88	153.27	155.80
Sulfur Dioxide (million tons)	0.48	0.46	0.41	0.43	0.43	0.44	0.44	0.46	0.48	0.48	0.47	0.48	0.48
Nitrogen Oxide (million tons)	0.26	0.25	0.21	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24
Mercury (tons)	1.39	1.32	1.24	1.29	1.32	1.37	1.39	1.49	1.59	1.63	1.63	1.64	1.64

**Table 67. Electric Power Projections for Electricity Market Module Region Florida Reliability Coordinating Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	10.96	11.24	11.52	11.92	11.92	11.92	13.17	14.87	16.26	17.46	18.68	2.2%
Other Fossil Steam 2/	10.76	10.76	10.26	10.26	10.26	10.26	10.26	10.26	10.26	10.26	10.26	-0.4%
Combined Cycle	16.92	17.82	18.62	19.81	20.68	21.82	21.82	21.82	21.82	22.16	22.53	4.2%
Combustion Turbine/Diesel	14.05	14.05	14.04	14.00	14.19	14.24	14.22	13.97	13.97	13.62	13.54	1.3%
Nuclear Power	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	0.0%
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.75	0.75	0.83	0.94	1.01	1.15	1.15	1.15	1.15	1.33	1.51	4.7%
Distributed Generation 5/	0.00	0.02	0.02	0.02	0.04	0.07	0.07	0.09	0.12	0.15	0.18	N/A
Total Capacity	57.36	58.57	59.21	60.88	62.02	63.38	64.61	66.08	67.50	68.90	70.63	1.9%
Cumulative Planned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	N/A
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.00	0.29	0.56	0.97	0.97	0.97	2.22	3.91	5.30	6.50	7.73	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	5.48	6.38	7.17	8.37	9.23	10.38	10.38	10.38	10.38	10.72	11.09	N/A
Combustion Turbine/Diesel	4.60	4.60	4.60	4.60	4.78	5.05	5.05	5.05	5.05	5.33	5.67	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.20	0.20	0.28	0.39	0.46	0.60	0.60	0.60	0.60	0.78	0.96	N/A
Distributed Generation 5/	0.00	0.02	0.02	0.02	0.04	0.07	0.07	0.09	0.12	0.15	0.18	N/A
Total Unplanned Additions	10.27	11.49	12.64	14.35	15.49	17.07	18.32	20.04	21.46	23.48	25.62	N/A
Cumulative Total Additions	12.55	13.76	14.92	16.63	17.77	19.35	20.60	22.32	23.74	25.76	27.90	N/A
Cumulative Retirements 7/												
Coal Steam	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	N/A
Other Fossil Steam 3/	0.55	0.55	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	0.64	0.64	0.65	0.68	0.68	0.90	0.92	1.17	1.17	1.79	2.21	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	1.69	1.69	2.20	2.24	2.24	2.46	2.48	2.73	2.73	3.35	3.77	N/A
End Use Sector 8/												
Coal	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.0%
Petroleum	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	4.2%
Natural Gas	0.12	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.16	2.9%
Other Gaseous Fuels	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	-0.3%
Renewable Sources 4/	0.21	0.21	0.22	0.23	0.23	0.24	0.25	0.26	0.27	0.28	0.29	2.7%
Other	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.0%

**Table 67. Electric Power Projections for Electricity Market Module Region Florida Reliability Coordinating Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	0.89	0.90	0.90	0.92	0.93	0.94	0.95	0.97	0.98	1.00	1.01	1.1%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	137.87	140.55	142.65	145.00	147.33	150.06	152.09	154.61	157.21	160.18	162.39	2.0%
Commercial/Other	113.99	117.15	120.43	123.45	126.51	129.67	132.99	136.47	140.06	143.82	147.67	2.8%
Industrial	19.98	20.07	20.35	20.67	20.90	21.15	21.35	21.57	21.84	22.12	22.36	1.3%
Transportation	1.49	1.53	1.56	1.60	1.63	1.67	1.71	1.75	1.79	1.83	1.87	2.2%
Total Sales	273.34	279.30	284.98	290.71	296.38	302.55	308.14	314.39	320.90	327.95	334.28	2.2%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross Interregional Electricity Imports	39.28	38.46	36.98	36.71	34.93	34.64	33.01	29.41	27.50	24.26	20.71	-2.7%
Gross Interregional Electricity Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Purchases from Combined Heat and Power 8/	0.86	0.89	0.92	0.95	1.00	1.05	1.09	1.12	1.15	1.18	1.21	4.4%
Electric Power Sector Generation for Customers	248.33	255.40	262.86	269.13	276.85	283.58	291.07	301.22	309.96	320.59	330.78	2.5%
Total Net Energy for Load	288.47	294.75	300.76	306.80	312.77	319.27	325.17	331.76	338.61	346.03	352.71	1.9%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	81.43	83.58	85.74	88.65	88.65	88.86	97.94	110.32	120.24	129.07	137.78	3.9%
Petroleum	37.50	37.46	36.24	33.84	33.94	33.81	34.53	33.75	33.72	33.53	33.30	-0.5%
Natural Gas	93.83	98.71	104.84	109.98	117.03	122.99	120.32	118.60	117.32	118.85	119.80	2.9%
Nuclear	32.13	32.13	32.13	32.13	32.13	32.13	32.13	32.13	32.13	32.13	32.13	0.2%
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	5.47	5.54	5.94	6.55	7.13	7.80	8.16	8.43	8.56	9.03	9.78	4.2%
Total Generation	250.36	257.43	264.89	271.16	278.88	285.60	293.09	303.24	311.97	322.60	332.80	2.5%
Sales to Customers	248.33	255.40	262.86	269.13	276.85	283.58	291.07	301.22	309.96	320.59	330.78	2.5%
Generation for Own Use	2.03	2.03	2.03	2.03	2.03	2.02	2.02	2.02	2.02	2.02	2.02	0.6%
Distributed Generation 5/	0.00	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.05	0.07	0.08	N/A
<b>End Use Sector 8/</b>												
Coal	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	N/A
Petroleum	0.23	0.24	0.25	0.25	0.27	0.28	0.30	0.30	0.30	0.30	0.30	3.8%
Natural Gas	0.85	0.87	0.91	0.94	0.98	1.01	1.05	1.09	1.13	1.17	1.22	3.7%
Other Gaseous Fuels	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	-0.4%
Renewable Sources 4/	1.29	1.30	1.32	1.35	1.38	1.41	1.44	1.47	1.51	1.54	1.57	2.0%
Other	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	0.0%
Total	3.94	3.99	4.05	4.12	4.21	4.29	4.38	4.45	4.53	4.60	4.67	1.6%
Sales to Utilities	0.86	0.89	0.92	0.95	1.00	1.05	1.09	1.12	1.15	1.18	1.21	4.4%
Generation for Own Use	3.07	3.10	3.13	3.17	3.21	3.25	3.29	3.33	3.37	3.41	3.46	0.9%
Total Electricity Generation	254.30	261.42	268.95	275.29	283.10	289.92	297.50	307.73	316.55	327.27	337.55	2.4%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	9.0	9.0	8.9	9.0	9.0	9.0	9.1	9.0	9.0	9.0	9.0	0.2%
Commercial	7.8	7.8	7.8	7.9	7.9	8.0	8.0	8.0	8.0	8.0	8.1	0.5%
Industrial	5.9	5.9	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.4%
Transportation	7.0	7.0	6.9	7.0	7.0	7.0	7.0	7.0	6.9	6.9	6.9	-0.1%
All Sectors Average	8.2	8.3	8.2	8.3	8.3	8.4	8.4	8.4	8.4	8.4	8.4	0.3%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	5.5	5.5	5.5	5.6	5.6	5.7	5.7	5.7	5.7	5.7	5.7	0.3%

**Table 67. Electric Power Projections for Electricity Market Module Region Florida Reliability Coordinating Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.3%
Distribution	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	-0.2%
Fuel Consumption (quadrillion Btu) 9/												
Coal	0.80	0.81	0.83	0.85	0.85	0.85	0.93	1.03	1.12	1.19	1.27	2.5%
Natural Gas	0.72	0.75	0.79	0.82	0.87	0.90	0.88	0.87	0.86	0.87	0.88	2.3%
Oil	0.38	0.38	0.37	0.35	0.35	0.35	0.35	0.34	0.34	0.34	0.34	-0.5%
Total	1.90	1.95	1.99	2.02	2.06	2.10	2.16	2.25	2.32	2.40	2.48	1.9%
Fuel Prices (dollars per million Btu)												
Coal	1.68	1.68	1.67	1.69	1.69	1.69	1.74	1.76	1.78	1.80	1.81	0.7%
Natural Gas	5.17	5.16	5.28	5.44	5.62	5.72	5.76	5.75	5.71	5.75	5.81	-0.1%
Distillate Fuel	5.29	5.35	5.41	5.60	5.72	5.78	5.83	5.88	5.93	5.99	6.04	-0.2%
Residual Fuel	4.39	4.44	4.49	4.53	4.59	4.64	4.69	4.75	4.80	4.85	4.91	0.2%
Biomass	1.46	1.48	1.51	1.58	1.62	1.61	1.64	1.65	1.65	1.62	1.60	3.9%
Emissions 10/												
Total Carbon (million tons)	43.08	43.98	44.77	45.22	45.96	46.56	48.47	51.08	53.29	55.49	57.59	2.3%
Carbon Dioxide (million tons)	157.96	161.26	164.16	165.81	168.53	170.72	177.72	187.28	195.40	203.47	211.18	2.3%
Sulfur Dioxide (million tons)	0.48	0.48	0.47	0.45	0.45	0.44	0.44	0.44	0.44	0.45	0.46	0.0%
Nitrogen Oxide (million tons)	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.25	0.25	0.25	0.1%
Mercury (tons)	1.64	1.65	1.65	1.61	1.60	1.52	1.53	1.55	1.56	1.58	1.64	1.0%

**Table 67. Electric Power Projections for Electricity Market Module Region Florida Reliability Coordinating Council**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.



**Table 68. Electric Power Projections for Electricity Market Module Southeastern Electric Reliability Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	71.41	71.16	71.19	71.19	71.19	71.19	71.19	71.19	71.19	71.19	71.15	71.15	71.29
Other Fossil Steam 2/	18.61	18.87	18.84	18.84	18.82	18.82	18.77	18.77	18.73	18.73	17.87	17.87	17.56
Combined Cycle	22.51	31.40	35.31	35.96	38.59	38.59	38.59	38.59	38.59	38.59	38.59	38.59	39.16
Combustion Turbine/Diesel	29.30	31.11	31.85	31.85	31.76	31.64	31.64	31.38	31.38	31.38	30.74	30.74	32.45
Nuclear Power	32.21	32.30	32.43	32.78	32.90	33.02	33.05	33.08	33.13	33.15	33.52	33.87	34.23
Pumped Storage/Other 3/	7.04	7.11	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	12.29	12.29	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.49
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capacity	193.37	204.24	209.13	210.13	212.77	212.77	212.75	212.51	212.52	212.54	211.38	211.74	214.36
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	3.91	4.56	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19
Combustion Turbine/Diesel	0.00	0.00	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	4.70	5.35	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.71
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57
Cumulative Total Additions	0.00	0.00	4.70	5.35	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	10.55
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 3/	0.00	0.00	0.03	0.03	0.05	0.05	0.10	0.10	0.14	0.14	1.00	1.00	1.31
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.09	0.21	0.21	0.48	0.48	0.48	1.11	1.11	1.11
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.03	0.03	0.14	0.26	0.31	0.57	0.62	0.62	2.12	2.12	2.43
End Use Sector 8/													
Coal	0.81	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Petroleum	0.32	0.23	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.50	0.49	0.49	0.49
Natural Gas	4.16	4.22	4.46	4.53	4.61	4.70	4.83	4.96	5.09	5.22	5.35	5.49	5.63
Other Gaseous Fuels	0.58	0.57	0.57	0.57	0.48	0.48	0.48	0.49	0.49	0.50	0.50	0.50	0.51

**Table 68. Electric Power Projections for Electricity Market Module Southeastern Electric Reliability Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Renewable Sources 4/	2.99	3.02	3.20	3.36	3.42	3.50	3.61	3.71	3.80	3.85	3.90	3.93	3.99
Other	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Total	8.92	8.90	9.57	9.80	9.87	10.03	10.27	10.52	10.74	10.93	11.10	11.28	11.49
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	298.18	296.18	298.29	306.97	312.25	319.69	327.91	334.05	340.43	346.47	353.15	358.04	363.55
Commercial/Other	232.99	230.47	235.87	241.86	249.76	258.90	267.98	276.60	285.01	293.47	301.92	310.47	318.92
Industrial	247.45	247.13	256.14	262.13	262.85	266.79	272.32	277.43	279.86	283.58	287.27	290.09	295.00
Transportation	3.98	4.05	4.11	4.21	4.31	4.41	4.51	4.61	4.71	4.80	4.91	5.01	5.11
Total Sales	782.60	777.82	794.41	815.16	829.16	849.78	872.71	892.69	910.01	928.32	947.25	963.61	982.58
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross Interregional Electricity Imports	82.73	89.55	89.61	86.56	86.07	87.47	84.12	84.03	82.74	85.16	84.51	81.21	80.27
Gross Interregional Electricity Exports	51.88	55.86	60.55	56.10	57.07	57.70	57.67	57.93	54.58	54.77	54.92	52.93	51.11
Purchases from Combined Heat and Power 8/	9.32	9.66	10.99	11.83	13.52	14.07	15.10	16.11	16.92	17.63	18.36	19.04	19.84
Electric Power Sector Generation for Customers	821.62	813.67	803.53	822.77	836.90	856.94	883.07	902.93	917.90	933.73	953.29	970.64	988.35
Total Net Energy for Load	861.79	857.03	843.58	865.06	879.42	900.78	924.63	945.14	962.99	981.75	1001.25	1017.96	1037.35
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	436.56	443.39	444.51	458.41	471.46	484.67	492.91	499.20	501.31	503.64	505.93	506.33	508.00
Petroleum	7.04	12.22	15.06	15.76	15.57	15.73	16.13	16.32	16.66	16.74	17.11	17.84	18.40
Natural Gas	102.06	74.13	72.80	69.37	67.84	66.50	82.89	95.66	107.52	120.87	135.27	148.63	161.04
Nuclear	252.76	246.95	253.05	256.34	257.46	265.46	265.72	265.72	266.13	266.36	268.93	271.85	274.31
Pumped Storage/Other 3/	-2.75	-2.91	-3.63	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64
Renewable Sources 4/	30.27	44.46	35.02	39.91	41.60	41.62	42.46	43.09	43.33	43.17	42.87	42.81	43.40
Total Generation	825.94	818.24	816.82	836.15	850.29	870.34	896.48	916.35	931.32	947.15	966.47	983.82	1001.52
Sales to Customers	821.62	813.67	803.53	822.77	836.90	856.94	883.07	902.93	917.90	933.73	953.29	970.64	988.35
Generation for Own Use	4.32	4.57	13.28	13.38	13.39	13.41	13.41	13.41	13.41	13.41	13.18	13.18	13.18
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>End Use Sector 8/</b>													
Coal	3.93	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84
Petroleum	1.56	1.64	1.81	1.81	2.17	2.15	2.35	2.52	2.62	2.63	2.65	2.68	2.71
Natural Gas	25.52	23.17	24.39	24.91	26.75	27.43	28.44	29.50	30.58	31.58	32.60	33.67	34.80
Other Gaseous Fuels	1.74	1.73	1.74	1.74	1.21	1.21	1.23	1.26	1.29	1.32	1.35	1.37	1.40
Renewable Sources 4/	20.01	20.55	21.78	22.72	23.00	23.37	23.91	24.43	24.77	25.05	25.36	25.54	25.88
Other	2.17	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Total	54.93	53.33	55.97	57.43	59.37	60.40	62.18	63.96	65.49	66.82	68.20	69.52	71.04
Sales to Utilities	9.32	9.66	10.99	11.83	13.52	14.07	15.10	16.11	16.92	17.63	18.36	19.04	19.84
Generation for Own Use	45.61	43.67	44.98	45.60	45.85	46.33	47.08	47.85	48.57	49.19	49.84	50.47	51.20
Total Electricity Generation	880.87	871.57	872.79	893.58	909.66	930.74	958.66	980.31	996.81	1013.97	1034.67	1053.33	1072.56
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	7.7	7.7	8.0	7.9	7.7	7.4	7.3	7.2	7.1	7.0	6.9	6.9	6.9
Commercial	6.6	6.6	6.9	6.8	6.6	6.4	6.3	6.2	6.2	6.1	6.1	6.1	6.1
Industrial	4.2	4.3	4.5	4.5	4.4	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.1
Transportation	5.9	6.2	6.2	6.1	5.9	5.7	5.6	5.5	5.5	5.4	5.4	5.4	5.4
All Sectors Average	6.2	6.3	6.6	6.5	6.3	6.1	6.0	5.9	5.9	5.9	5.8	5.8	5.8

**Table 68. Electric Power Projections for Electricity Market Module Southeastern Electric Reliability Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Prices by Service Category (2003 cents per kilowatthour)													
Generation	4.2	4.4	4.6	4.6	4.4	4.2	4.1	4.0	4.0	4.0	3.9	3.9	3.9
Transmission	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
Distribution	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4
Fuel Consumption (quadrillion Btu) 9/													
Coal	4.35	4.39	4.46	4.60	4.73	4.86	4.95	5.01	5.04	5.06	5.09	5.09	5.11
Natural Gas	0.99	0.70	0.60	0.58	0.57	0.56	0.69	0.79	0.88	0.99	1.09	1.20	1.29
Oil	0.07	0.13	0.16	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.19	0.19
Total	5.41	5.22	5.22	5.34	5.46	5.59	5.80	5.98	6.10	6.23	6.36	6.48	6.59
Fuel Prices (dollars per million Btu)													
Coal	1.49	1.29	1.42	1.39	1.40	1.39	1.39	1.43	1.43	1.46	1.45	1.46	1.46
Natural Gas	3.64	5.68	5.95	5.69	4.88	4.36	4.04	4.05	4.00	4.07	4.20	4.34	4.55
Distillate Fuel	5.62	6.39	7.01	6.74	6.08	5.68	5.49	5.31	5.20	5.16	5.21	5.24	5.30
Residual Fuel	3.86	4.67	5.31	5.19	4.76	4.33	4.12	3.98	3.91	3.96	4.00	4.06	4.08
Biomass	1.09	1.05	1.06	1.19	1.21	1.24	1.37	1.45	1.48	1.49	1.49	1.49	1.52
Emissions 10/													
Total Carbon (million tons)	136.27	137.22	139.67	143.40	146.79	150.49	154.99	158.58	160.92	163.44	165.89	167.88	169.99
Carbon Dioxide (million tons)	499.64	503.14	512.11	525.79	538.22	551.79	568.31	581.45	590.02	599.30	608.25	615.55	623.28
Sulfur Dioxide (million tons)	2.78	2.88	2.78	2.77	2.71	2.64	2.47	2.48	2.48	2.43	2.35	2.32	2.32
Nitrogen Oxide (million tons)	1.10	1.04	0.75	0.77	0.79	0.80	0.83	0.85	0.86	0.87	0.87	0.88	0.88
Mercury (tons)	10.21	10.16	10.71	10.71	10.26	10.38	9.98	10.79	11.03	11.31	11.27	11.26	11.33

**Table 68. Electric Power Projections for Electricity Market Module Southeastern Electric Reliability Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	71.29	71.61	72.10	74.47	76.16	79.96	83.27	87.06	90.15	92.72	94.93	1.3%
Other Fossil Steam 2/	17.56	17.56	17.48	17.48	17.37	17.37	17.37	17.37	17.37	17.37	17.37	-0.4%
Combined Cycle	40.77	42.40	42.90	42.90	43.09	43.09	43.09	43.09	43.29	43.29	43.61	1.5%
Combustion Turbine/Diesel	33.55	34.96	37.17	38.18	39.52	39.52	39.52	39.52	40.21	42.44	43.96	1.6%
Nuclear Power	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	0.3%
Pumped Storage/Other 3/	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	12.68	12.68	12.68	12.68	12.74	12.77	12.77	12.77	12.86	12.91	13.03	0.3%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Capacity	217.38	220.73	223.86	227.24	230.41	234.24	237.55	241.34	245.40	250.26	254.42	1.0%
Cumulative Planned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19	7.19	N/A
Combustion Turbine/Diesel	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.14	0.45	0.94	3.32	5.00	8.81	12.12	15.91	19.00	21.57	23.78	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	2.18	3.81	4.31	4.31	4.51	4.51	4.51	4.51	4.70	4.70	5.02	N/A
Combustion Turbine/Diesel	2.81	4.22	6.43	7.44	8.78	8.78	8.78	8.78	9.47	11.70	13.22	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.34	0.34	0.34	0.34	0.40	0.43	0.43	0.43	0.52	0.57	0.69	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Unplanned Additions	5.48	8.83	12.03	15.42	18.69	22.52	25.83	29.62	33.68	38.54	42.70	N/A
Cumulative Total Additions	13.46	16.81	20.01	23.40	26.67	30.50	33.81	37.60	41.66	46.52	50.68	N/A
Cumulative Retirements 7/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 3/	1.31	1.31	1.39	1.39	1.50	1.50	1.50	1.50	1.50	1.50	1.50	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	2.43	2.43	2.51	2.51	2.61	2.61	2.61	2.61	2.61	2.61	2.61	N/A
End Use Sector 8/												
Coal	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.0%
Petroleum	0.49	0.49	0.49	0.51	0.54	0.55	0.57	0.57	0.57	0.56	0.56	4.2%
Natural Gas	5.78	5.93	6.10	6.29	6.49	6.70	6.91	7.13	7.35	7.59	7.83	2.9%
Other Gaseous Fuels	0.51	0.51	0.51	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	-0.3%

**Table 68. Electric Power Projections for Electricity Market Module Southeastern Electric Reliability Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Renewable Sources 4/	4.06	4.10	4.21	4.34	4.47	4.61	4.75	4.91	5.10	5.29	5.49	2.7%
Other	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.0%
Total	11.70	11.90	12.19	12.52	12.88	13.24	13.62	14.00	14.41	14.83	15.28	2.5%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	369.02	374.94	379.24	384.19	389.06	394.96	399.06	404.46	410.09	416.68	421.18	1.6%
Commercial/Other	327.63	336.73	346.08	354.99	363.89	373.03	382.64	392.76	403.23	414.22	425.40	2.8%
Industrial	297.58	298.95	303.14	307.85	311.08	314.38	317.03	319.73	323.05	326.84	330.17	1.3%
Transportation	5.21	5.32	5.43	5.55	5.66	5.78	5.90	6.02	6.14	6.27	6.40	2.1%
Total Sales	999.45	1015.95	1033.89	1052.58	1069.69	1088.14	1104.63	1122.97	1142.51	1164.01	1183.15	1.9%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross Interregional Electricity Imports	82.19	78.85	78.42	72.85	65.43	56.66	48.06	33.99	32.69	29.02	28.24	-5.1%
Gross Interregional Electricity Exports	49.51	47.53	44.69	43.04	39.86	38.23	35.50	30.71	29.33	26.37	22.93	-4.0%
Purchases from Combined Heat and Power 8/	20.67	21.44	22.42	23.50	24.71	25.98	27.23	28.29	29.38	30.44	31.49	5.5%
Electric Power Sector Generation for Customers	1001.20	1019.27	1034.76	1057.31	1078.49	1103.90	1125.85	1153.38	1172.83	1195.16	1211.65	1.8%
Total Net Energy for Load	1054.55	1072.03	1090.91	1110.62	1128.78	1148.31	1165.64	1184.95	1205.57	1228.25	1248.45	1.7%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	509.00	511.62	515.97	533.46	546.21	574.64	598.18	624.90	646.53	665.25	680.48	2.0%
Petroleum	18.88	18.98	19.45	19.85	22.03	22.52	22.97	22.92	21.49	21.62	23.34	3.0%
Natural Gas	170.99	186.17	196.85	201.43	207.58	204.45	202.24	203.15	202.17	206.20	206.22	4.8%
Nuclear	275.07	275.07	275.07	275.07	275.07	275.07	275.07	275.07	275.07	275.07	275.07	0.5%
Pumped Storage/Other 3/	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	1.0%
Renewable Sources 4/	44.07	44.24	44.24	44.31	44.41	44.03	44.20	44.15	44.38	43.83	43.34	-0.1%
Total Generation	1014.38	1032.45	1047.94	1070.48	1091.66	1117.08	1139.02	1166.55	1186.00	1208.34	1224.83	1.9%
Sales to Customers	1001.20	1019.27	1034.76	1057.31	1078.49	1103.90	1125.85	1153.38	1172.83	1195.16	1211.65	1.8%
Generation for Own Use	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	4.9%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
<b>End Use Sector 8/</b>												
Coal	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84	0.0%
Petroleum	2.83	2.96	3.05	3.15	3.32	3.53	3.76	3.77	3.76	3.72	3.72	3.8%
Natural Gas	35.91	37.13	38.45	39.87	41.41	43.01	44.67	46.33	48.06	49.84	51.70	3.7%
Other Gaseous Fuels	1.42	1.43	1.45	1.47	1.48	1.50	1.52	1.53	1.55	1.57	1.58	-0.4%
Renewable Sources 4/	26.25	26.43	26.96	27.55	28.21	28.81	29.42	30.02	30.69	31.33	31.95	2.0%
Other	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	0.0%
Total	72.66	74.19	76.16	78.29	80.66	83.09	85.61	87.89	90.30	92.70	95.19	2.7%
Sales to Utilities	20.67	21.44	22.42	23.50	24.71	25.98	27.23	28.29	29.38	30.44	31.49	5.5%
Generation for Own Use	51.99	52.75	53.74	54.79	55.95	57.11	58.37	59.60	60.92	62.26	63.70	1.7%
Total Electricity Generation	1087.04	1106.64	1124.10	1148.78	1172.32	1200.17	1224.63	1254.44	1276.30	1301.04	1320.01	1.9%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	6.9	6.9	6.9	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	-0.4%
Commercial	6.1	6.1	6.2	6.3	6.3	6.4	6.4	6.4	6.4	6.4	6.4	-0.2%
Industrial	4.2	4.2	4.2	4.2	4.3	4.3	4.3	4.3	4.3	4.3	4.3	0.0%
Transportation	5.4	5.4	5.4	5.4	5.5	5.5	5.5	5.5	5.4	5.4	5.4	-0.6%
All Sectors Average	5.8	5.8	5.9	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0	-0.2%

**Table 68. Electric Power Projections for Electricity Market Module Southeastern Electric Reliability Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Prices by Service Category (2003 cents per kilowatthour)												
Generation	4.0	4.0	4.0	4.1	4.1	4.2	4.2	4.2	4.2	4.2	4.2	-0.1%
Transmission	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6%
Distribution	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	-0.9%
Fuel Consumption (quadrillion Btu) 9/												
Coal	5.12	5.14	5.18	5.33	5.44	5.67	5.87	6.09	6.26	6.41	6.52	1.8%
Natural Gas	1.35	1.45	1.53	1.57	1.61	1.59	1.57	1.58	1.58	1.61	1.61	3.8%
Oil	0.20	0.20	0.20	0.21	0.23	0.23	0.24	0.24	0.22	0.22	0.24	2.7%
Total	6.67	6.80	6.92	7.11	7.28	7.49	7.68	7.90	8.06	8.24	8.37	2.2%
Fuel Prices (dollars per million Btu)												
Coal	1.47	1.47	1.49	1.49	1.49	1.47	1.47	1.47	1.47	1.48	1.49	0.7%
Natural Gas	4.70	4.70	4.81	4.98	5.15	5.25	5.32	5.34	5.30	5.35	5.42	-0.2%
Distillate Fuel	5.35	5.42	5.47	5.65	5.79	5.85	5.94	6.01	6.08	6.12	6.17	-0.2%
Residual Fuel	4.13	4.18	4.22	4.25	4.35	4.40	4.46	4.51	4.50	4.56	4.68	0.0%
Biomass	1.52	1.53	1.52	1.56	1.58	1.59	1.60	1.60	1.61	1.61	1.59	1.9%
Emissions 10/												
Total Carbon (million tons)	171.38	173.72	176.16	181.10	185.41	191.59	196.98	203.33	207.76	212.35	215.76	2.1%
Carbon Dioxide (million tons)	628.39	636.96	645.90	664.02	679.85	702.50	722.27	745.55	761.79	778.61	791.10	2.1%
Sulfur Dioxide (million tons)	2.33	2.34	2.35	2.37	2.38	2.40	2.40	2.40	2.40	2.40	2.41	-0.8%
Nitrogen Oxide (million tons)	0.89	0.89	0.89	0.90	0.91	0.92	0.93	0.94	0.94	0.94	0.94	-0.4%
Mercury (tons)	11.31	11.30	11.36	11.43	11.48	11.61	11.83	11.98	12.04	12.13	12.24	0.9%

**Table 68. Electric Power Projections for Electricity Market Module Southeastern Electric Reliability Council**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 69. Electric Power Projections for Electricity Market Module Southwest Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.11	21.11	21.11	21.11	21.11	21.11
Other Fossil Steam 2/	12.79	12.71	12.66	11.30	10.69	10.38	10.35	10.35	10.35	10.31	8.35	8.08	8.08
Combined Cycle	6.78	10.58	11.21	11.21	11.21	11.21	11.21	11.21	11.21	11.21	11.21	11.12	11.12
Combustion Turbine/Diesel	6.50	6.86	7.50	7.45	7.33	7.33	7.33	7.33	7.33	7.33	7.25	7.25	7.25
Nuclear Power	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.18	1.18	1.18	1.18
Pumped Storage/Other 3/	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	2.72	2.90	2.90	3.15	3.16	3.16	3.16	3.16	3.16	3.16	3.17	3.17	3.17
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capacity	52.05	56.32	57.54	56.38	55.65	55.34	55.31	54.83	54.83	54.81	52.77	52.40	52.40
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Combustion Turbine/Diesel	0.00	0.00	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.26	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	1.27	1.53	1.53	1.53	1.53	1.53	1.53	1.54	1.54	1.54	1.54
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative Total Additions	0.00	0.00	1.27	1.53	1.53	1.53	1.53	1.53	1.53	1.54	1.54	1.54	1.54
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.49	0.49	0.49	0.49	0.49
Other Fossil Steam 3/	0.00	0.00	0.05	1.44	2.04	2.36	2.39	2.39	2.39	2.42	4.38	4.66	4.66
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09
Combustion Turbine/Diesel	0.00	0.00	0.00	0.06	0.17	0.17	0.17	0.17	0.17	0.17	0.25	0.26	0.26
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.05	1.49	2.21	2.53	2.56	3.05	3.05	3.08	5.12	5.49	5.49
End Use Sector 8/													
Coal	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Petroleum	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Natural Gas	0.35	0.36	0.38	0.39	0.39	0.40	0.41	0.42	0.43	0.44	0.46	0.47	0.48
Other Gaseous Fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Renewable Sources 4/	0.35	0.35	0.37	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.45	0.46	0.46
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



**Table 69. Electric Power Projections for Electricity Market Module Southwest Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	0.78	0.79	0.84	0.86	0.87	0.89	0.91	0.94	0.96	0.97	0.99	1.01	1.03
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	62.38	64.06	64.44	67.34	68.62	70.14	71.87	73.14	74.51	75.85	77.34	78.44	79.67
Commercial/Other	62.91	63.78	64.77	66.89	68.78	70.94	73.11	75.16	77.16	79.21	81.28	83.31	85.27
Industrial	47.27	47.65	49.90	51.09	51.46	52.97	54.10	55.02	55.46	56.12	56.75	57.27	58.40
Transportation	0.93	0.96	0.99	1.01	1.03	1.05	1.08	1.10	1.12	1.14	1.17	1.19	1.21
Total Sales	173.49	176.45	180.09	186.33	189.88	195.10	200.15	204.41	208.25	212.32	216.54	220.21	224.56
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross Interregional Electricity Imports	20.52	27.93	30.30	23.36	22.65	23.47	25.14	25.93	23.22	23.02	22.52	21.13	19.03
Gross Interregional Electricity Exports	19.21	16.97	21.23	18.04	18.36	17.96	18.12	16.17	15.53	15.11	14.89	13.69	12.04
Purchases from Combined Heat and Power 8/	0.78	0.85	0.97	1.06	1.17	1.22	1.30	1.38	1.44	1.50	1.55	1.60	1.66
Electric Power Sector Generation for Customers	202.32	209.09	183.43	193.65	198.23	202.14	206.16	207.71	213.66	217.60	222.22	226.16	231.01
Total Net Energy for Load	204.41	220.91	193.47	200.03	203.70	208.88	214.49	218.85	222.79	227.01	231.40	235.19	239.66
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	143.65	146.26	142.36	148.76	153.48	157.12	158.14	154.48	154.55	154.77	154.90	154.93	154.90
Petroleum	0.60	1.25	1.25	1.35	1.38	1.42	1.44	1.43	1.47	1.49	1.54	1.55	1.59
Natural Gas	42.82	48.17	28.17	30.19	29.86	29.91	32.98	38.14	44.01	47.57	51.97	55.88	60.68
Nuclear	9.04	8.89	9.27	9.27	9.27	9.27	9.27	9.27	9.27	9.39	9.39	9.39	9.39
Pumped Storage/Other 3/	-0.13	0.11	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20
Renewable Sources 4/	7.02	5.47	5.81	7.54	7.71	7.90	7.81	7.88	7.84	7.87	7.87	7.86	7.90
Total Generation	203.00	210.15	186.67	196.90	201.49	205.41	209.44	210.99	216.94	220.88	225.46	229.40	234.26
Sales to Customers	202.32	209.09	183.43	193.65	198.23	202.14	206.16	207.71	213.66	217.60	222.22	226.16	231.01
Generation for Own Use	0.68	1.06	3.24	3.25	3.26	3.27	3.28	3.28	3.28	3.28	3.24	3.24	3.24
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>End Use Sector 8/</b>													
Coal	0.71	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Petroleum	0.12	0.13	0.14	0.14	0.17	0.17	0.18	0.20	0.20	0.21	0.21	0.21	0.21
Natural Gas	1.61	1.46	1.54	1.57	1.69	1.73	1.80	1.86	1.93	1.99	2.06	2.13	2.20
Other Gaseous Fuels	0.14	0.13	0.14	0.14	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.11
Renewable Sources 4/	2.29	2.36	2.50	2.61	2.64	2.68	2.74	2.80	2.84	2.87	2.91	2.93	2.97
Other	0.35	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Total	5.23	5.17	5.40	5.54	5.68	5.76	5.91	6.05	6.16	6.26	6.37	6.46	6.57
Sales to Utilities	0.78	0.85	0.97	1.06	1.17	1.22	1.30	1.38	1.44	1.50	1.55	1.60	1.66
Generation for Own Use	4.45	4.32	4.43	4.49	4.50	4.54	4.60	4.67	4.72	4.77	4.81	4.86	4.91
Total Electricity Generation	208.23	215.32	192.07	202.45	207.17	211.17	215.34	217.04	223.10	227.14	231.83	235.86	240.83
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	7.0	7.3	7.8	7.8	7.5	7.3	7.2	7.2	7.2	7.1	7.0	7.0	7.0
Commercial	5.8	6.1	6.7	6.7	6.5	6.3	6.2	6.3	6.3	6.2	6.1	6.1	6.2
Industrial	4.2	4.5	4.9	4.8	4.7	4.6	4.5	4.6	4.6	4.5	4.4	4.4	4.5
Transportation	5.4	5.5	5.9	5.8	5.6	5.4	5.4	5.5	5.5	5.4	5.3	5.4	5.4
All Sectors Average	5.8	6.1	6.6	6.6	6.4	6.2	6.1	6.2	6.2	6.0	5.9	6.0	6.1
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	3.3	3.7	4.2	4.2	4.1	3.9	3.8	3.9	3.9	3.8	3.8	3.8	3.9

**Table 69. Electric Power Projections for Electricity Market Module Southwest Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Distribution	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.6
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.53	1.49	1.52	1.59	1.65	1.69	1.70	1.66	1.66	1.66	1.66	1.66	1.66
Natural Gas	0.42	0.45	0.23	0.25	0.25	0.25	0.28	0.32	0.36	0.39	0.42	0.46	0.49
Oil	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total	1.95	1.95	1.77	1.86	1.91	1.95	1.99	1.99	2.03	2.07	2.10	2.13	2.17
Fuel Prices (dollars per million Btu)													
Coal	1.11	1.06	1.08	1.09	1.11	1.10	1.10	1.13	1.14	1.14	1.13	1.15	1.15
Natural Gas	3.46	5.53	5.81	5.61	4.85	4.35	3.99	3.97	3.89	3.95	4.07	4.21	4.39
Distillate Fuel	5.64	6.46	7.12	6.84	6.10	5.68	5.53	5.32	5.18	5.14	5.18	5.22	5.28
Residual Fuel	4.00	4.16	5.52	5.63	4.93	4.53	4.32	4.12	3.77	3.81	3.63	3.83	3.83
Biomass	0.69	0.69	0.91	1.09	0.99	1.30	1.00	1.03	1.04	1.04	1.03	1.14	1.34
Emissions 10/													
Total Carbon (million tons)	48.64	47.12	48.41	50.73	52.19	53.39	54.11	53.60	54.39	54.93	55.52	56.05	56.65
Carbon Dioxide (million tons)	178.34	172.78	177.49	186.02	191.37	195.78	198.40	196.55	199.43	201.41	203.59	205.52	207.72
Sulfur Dioxide (million tons)	0.39	0.40	0.40	0.41	0.42	0.43	0.43	0.42	0.42	0.42	0.42	0.41	0.41
Nitrogen Oxide (million tons)	0.31	0.29	0.26	0.27	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Mercury (tons)	4.13	4.10	4.19	4.39	4.52	4.62	4.65	4.63	4.64	4.66	4.66	4.65	4.65

**Table 69. Electric Power Projections for Electricity Market Module Southwest Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	21.11	21.64	21.64	22.18	22.51	23.00	23.00	23.06	23.97	25.04	25.70	0.8%
Other Fossil Steam 2/	8.08	8.08	8.08	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	-2.1%
Combined Cycle	11.62	11.94	12.77	12.77	12.77	12.98	12.98	12.98	12.98	13.23	13.23	1.0%
Combustion Turbine/Diesel	7.31	7.31	7.28	9.19	9.53	10.13	9.61	10.13	10.13	11.71	12.03	2.6%
Nuclear Power	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	0.1%
Pumped Storage/Other 3/	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	3.18	3.18	3.18	3.18	3.19	3.23	3.24	3.24	3.24	3.31	3.31	0.6%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Capacity	52.97	53.84	54.64	57.03	57.71	59.04	58.53	59.12	60.03	62.99	63.97	0.6%
Cumulative Planned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	N/A
Combustion Turbine/Diesel	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	1.55	1.55	1.55	1.55	1.56	1.56	1.56	1.56	1.57	1.57	1.57	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.00	0.54	0.54	1.07	1.41	1.89	1.89	1.95	2.86	3.93	4.60	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.50	0.83	1.65	1.65	1.65	1.86	1.86	1.86	1.86	2.11	2.11	N/A
Combustion Turbine/Diesel	0.06	0.06	0.17	2.18	2.86	3.45	3.45	3.97	3.97	5.55	5.87	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.11	0.11	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Unplanned Additions	0.57	1.43	2.36	4.91	5.92	7.25	7.25	7.83	8.74	11.70	12.68	N/A
Cumulative Total Additions	2.11	2.98	3.91	6.47	7.48	8.81	8.81	9.40	10.31	13.27	14.25	N/A
Cumulative Retirements 7/												
Coal Steam	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	N/A
Other Fossil Steam 3/	4.66	4.66	4.66	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	N/A
Combined Cycle	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	N/A
Combustion Turbine/Diesel	0.26	0.26	0.39	0.50	0.83	0.83	1.34	1.34	1.34	1.34	1.34	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	5.49	5.49	5.63	5.79	6.12	6.12	6.63	6.63	6.63	6.63	6.63	N/A
End Use Sector 8/												
Coal	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.0%
Petroleum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4.2%
Natural Gas	0.49	0.51	0.52	0.54	0.55	0.57	0.59	0.61	0.63	0.65	0.67	2.9%
Other Gaseous Fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-0.3%
Renewable Sources 4/	0.47	0.48	0.49	0.50	0.52	0.54	0.55	0.57	0.59	0.61	0.64	2.7%
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A

**Table 69. Electric Power Projections for Electricity Market Module Southwest Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	1.05	1.06	1.09	1.12	1.16	1.19	1.22	1.26	1.30	1.34	1.39	2.6%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	80.94	82.31	83.33	84.50	85.64	87.03	88.04	89.37	90.77	92.42	93.59	1.7%
Commercial/Other	87.29	89.39	91.54	93.71	95.74	97.82	99.99	102.29	104.69	107.25	109.81	2.5%
Industrial	58.84	59.14	59.91	60.75	61.28	61.74	62.04	62.31	62.61	63.16	63.64	1.3%
Transportation	1.24	1.26	1.29	1.32	1.34	1.37	1.40	1.43	1.46	1.49	1.52	2.1%
Total Sales	228.31	232.11	236.07	240.28	244.00	247.96	251.47	255.39	259.53	264.31	268.56	1.9%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross Interregional Electricity Imports	18.11	16.72	15.17	11.77	10.61	8.85	8.27	8.10	6.80	4.72	4.92	-7.6%
Gross Interregional Electricity Exports	10.99	10.01	8.19	7.26	6.97	6.65	4.98	3.96	3.47	7.75	7.91	-3.4%
Purchases from Combined Heat and Power 8/	1.72	1.78	1.85	1.94	2.03	2.13	2.23	2.31	2.39	2.47	2.54	5.1%
Electric Power Sector Generation for Customers	234.68	239.05	242.93	249.81	254.58	260.11	262.69	265.54	270.90	282.44	286.84	1.4%
Total Net Energy for Load	243.52	247.55	251.77	256.25	260.25	264.44	268.21	271.97	276.62	281.87	286.40	1.2%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	154.98	158.93	159.30	163.33	165.81	169.51	169.75	169.59	176.34	184.35	189.55	1.2%
Petroleum	1.61	1.62	1.62	1.66	1.92	1.92	1.97	2.00	1.76	1.84	2.11	2.4%
Natural Gas	64.22	64.70	68.46	71.34	73.39	75.15	77.61	80.32	78.99	82.10	81.37	2.4%
Nuclear	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	0.2%
Pumped Storage/Other 3/	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	N/A
Renewable Sources 4/	7.92	7.86	7.60	7.53	7.52	7.59	7.42	7.68	7.87	8.21	7.87	1.7%
Total Generation	237.92	242.30	246.17	253.05	257.82	263.35	265.94	268.78	274.15	285.68	290.08	1.5%
Sales to Customers	234.68	239.05	242.93	249.81	254.58	260.11	262.69	265.54	270.90	282.44	286.84	1.4%
Generation for Own Use	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	5.2%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
<b>End Use Sector 8/</b>												
Coal	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.0%
Petroleum	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.29	0.29	0.29	0.29	3.8%
Natural Gas	2.27	2.34	2.43	2.52	2.61	2.72	2.82	2.92	3.03	3.15	3.26	3.7%
Other Gaseous Fuels	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	-0.4%
Renewable Sources 4/	3.01	3.03	3.09	3.16	3.23	3.30	3.37	3.44	3.52	3.59	3.66	2.0%
Other	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.0%
Total	6.70	6.81	6.96	7.13	7.31	7.50	7.69	7.87	8.06	8.24	8.43	2.2%
Sales to Utilities	1.72	1.78	1.85	1.94	2.03	2.13	2.23	2.31	2.39	2.47	2.54	5.1%
Generation for Own Use	4.97	5.03	5.10	5.19	5.28	5.37	5.47	5.56	5.67	5.77	5.89	1.4%
Total Electricity Generation	244.62	249.10	253.13	260.18	265.13	270.85	273.63	276.65	282.20	293.92	298.51	1.5%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	7.0	7.0	7.1	7.0	7.1	7.1	7.2	7.1	7.1	7.0	7.0	-0.2%
Commercial	6.3	6.4	6.4	6.4	6.5	6.5	6.6	6.6	6.6	6.5	6.5	0.3%
Industrial	4.5	4.6	4.6	4.6	4.7	4.7	4.8	4.8	4.8	4.7	4.8	0.3%
Transportation	5.5	5.5	5.5	5.5	5.6	5.6	5.7	5.6	5.6	5.5	5.6	0.1%
All Sectors Average	6.1	6.1	6.2	6.2	6.2	6.2	6.3	6.3	6.3	6.2	6.3	0.1%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	4.0	4.1	4.1	4.1	4.2	4.2	4.3	4.4	4.4	4.3	4.3	0.8%

**Table 69. Electric Power Projections for Electricity Market Module Southwest Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.0%
Distribution	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3	-1.6%
Fuel Consumption (quadrillion Btu) 9/												
Coal	1.66	1.70	1.70	1.74	1.76	1.79	1.79	1.79	1.85	1.92	1.96	1.3%
Natural Gas	0.52	0.51	0.54	0.56	0.57	0.59	0.61	0.63	0.62	0.64	0.64	1.6%
Oil	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	1.9%
Total	2.20	2.23	2.25	2.31	2.35	2.39	2.42	2.44	2.48	2.58	2.62	1.4%
Fuel Prices (dollars per million Btu)												
Coal	1.15	1.15	1.13	1.13	1.13	1.11	1.11	1.12	1.12	1.12	1.12	0.3%
Natural Gas	4.53	4.52	4.61	4.78	4.94	5.05	5.12	5.13	5.11	5.16	5.21	-0.3%
Distillate Fuel	5.33	5.39	5.44	5.61	5.75	5.83	5.98	6.10	6.17	6.18	6.16	-0.2%
Residual Fuel	3.88	3.98	3.92	4.02	4.54	4.62	4.63	4.75	4.34	4.39	4.88	0.7%
Biomass	1.32	1.25	1.18	1.16	1.14	1.34	1.67	1.51	1.53	1.55	1.59	3.9%
Emissions 10/												
Total Carbon (million tons)	57.05	58.01	58.48	59.87	60.77	61.88	62.31	62.60	64.07	66.47	67.74	1.7%
Carbon Dioxide (million tons)	209.18	212.71	214.43	219.54	222.83	226.89	228.46	229.52	234.93	243.71	248.39	1.7%
Sulfur Dioxide (million tons)	0.41	0.41	0.41	0.41	0.42	0.42	0.42	0.41	0.41	0.41	0.41	0.2%
Nitrogen Oxide (million tons)	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.3%
Mercury (tons)	4.66	4.67	4.68	4.69	4.70	4.72	4.72	4.67	4.64	4.67	4.75	0.7%

**Table 69. Electric Power Projections for Electricity Market Module Southwest Power Pool**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 70. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Northwest Power Pool Area**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	11.49	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57
Other Fossil Steam 2/	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.24	0.02	0.02
Combined Cycle	3.23	3.47	4.21	4.36	4.96	4.96	4.96	4.96	4.96	4.96	4.96	4.96	4.96
Combustion Turbine/Diesel	2.44	2.44	2.49	2.63	2.63	2.63	2.63	2.63	2.63	2.63	1.72	1.72	1.72
Nuclear Power	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.12	1.12	1.12	1.12	1.12	1.12
Pumped Storage/Other 3/	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	36.09	36.16	36.17	36.26	36.28	36.28	36.29	36.29	36.26	36.27	36.27	36.28	36.41
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capacity	55.40	55.79	56.59	56.97	57.59	57.59	57.60	57.61	57.58	57.59	56.21	55.99	56.12
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.74	0.89	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
Combustion Turbine/Diesel	0.00	0.00	0.05	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.09	0.12	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.16
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	0.79	1.18	1.80	1.80	1.80	1.81	1.81	1.82	1.83	1.83	1.84
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
Cumulative Total Additions	0.00	0.00	0.79	1.18	1.80	1.80	1.80	1.81	1.81	1.82	1.83	1.83	1.96
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.71	0.71
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	1.42	1.65	1.65
End Use Sector 8/													
Coal	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Petroleum	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Natural Gas	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.22
Other Gaseous Fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Renewable Sources 4/	0.38	0.38	0.41	0.43	0.44	0.44	0.46	0.47	0.48	0.49	0.50	0.50	0.51
Other	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

**Table 70. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Northwest Power Pool Area**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	0.68	0.68	0.72	0.74	0.75	0.77	0.79	0.80	0.82	0.83	0.84	0.85	0.87
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	69.42	71.16	73.54	75.76	77.04	78.75	80.92	82.60	84.39	86.16	88.07	89.42	90.98
Commercial/Other	64.24	66.00	68.89	70.15	72.37	74.90	77.59	80.24	82.86	85.54	88.19	90.82	93.44
Industrial	61.40	60.46	64.01	65.23	68.15	69.23	70.64	71.78	72.44	73.38	74.25	75.00	76.13
Transportation	1.63	1.67	1.76	1.80	1.85	1.90	1.94	1.99	2.04	2.09	2.14	2.19	2.24
Total Sales	196.69	199.29	208.20	212.94	219.41	224.77	231.09	236.61	241.73	247.17	252.65	257.43	262.78
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	8.04	7.24	3.69	3.71	2.60	2.42	1.16	1.16	1.16	3.13	3.69	3.24	2.92
Gross International Exports	5.58	5.41	6.68	7.14	7.07	7.00	6.93	6.86	6.79	6.72	6.66	6.59	6.52
Gross Interregional Electricity Imports	25.56	24.45	17.46	17.20	16.48	16.48	16.29	16.07	15.81	15.61	15.59	15.32	14.79
Gross Interregional Electricity Exports	49.49	50.07	33.29	45.63	46.29	45.11	39.81	37.59	35.74	30.86	28.05	23.55	18.40
Purchases from Combined Heat and Power 8/	0.52	0.57	0.66	0.72	0.79	0.83	0.88	0.94	0.98	1.01	1.05	1.08	1.13
Electric Power Sector Generation for Customers	233.10	230.73	244.06	262.00	271.17	275.69	278.37	281.96	285.62	284.52	286.73	287.79	288.91
Total Net Energy for Load	212.14	207.50	225.90	230.85	237.68	243.31	249.97	255.68	261.03	266.68	272.35	277.30	282.82
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	76.90	81.81	81.29	83.11	84.79	86.62	87.78	87.78	87.78	87.66	87.60	87.65	87.65
Petroleum	0.58	0.61	0.60	0.61	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Natural Gas	14.71	19.09	22.95	22.18	23.35	26.04	27.75	31.17	34.92	33.86	36.02	36.95	36.96
Nuclear	9.05	7.61	8.16	8.24	8.31	8.38	8.45	8.61	8.68	8.74	8.81	8.88	8.94
Pumped Storage/Other 3/	0.32	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	133.28	123.13	132.80	149.59	155.83	155.76	155.50	155.51	155.36	155.36	155.40	155.41	156.46
Total Generation	234.83	232.61	245.79	263.73	272.91	277.43	280.12	283.70	287.37	286.26	288.47	289.54	290.65
Sales to Customers	233.10	230.73	244.06	262.00	271.17	275.69	278.37	281.96	285.62	284.52	286.73	287.79	288.91
Generation for Own Use	1.73	1.88	1.73	1.73	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>End Use Sector 8/</b>													
Coal	0.48	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
Petroleum	0.07	0.07	0.08	0.08	0.10	0.10	0.11	0.11	0.12	0.12	0.12	0.12	0.12
Natural Gas	1.07	0.97	1.02	1.04	1.12	1.15	1.19	1.24	1.28	1.32	1.37	1.41	1.46
Other Gaseous Fuels	0.08	0.08	0.08	0.08	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Renewable Sources 4/	1.67	1.72	1.82	1.90	1.92	1.96	2.00	2.04	2.07	2.10	2.12	2.14	2.17
Other	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Total	3.48	3.43	3.60	3.70	3.79	3.85	3.95	4.04	4.12	4.19	4.26	4.32	4.40
Sales to Utilities	0.52	0.57	0.66	0.72	0.79	0.83	0.88	0.94	0.98	1.01	1.05	1.08	1.13
Generation for Own Use	2.96	2.86	2.94	2.98	3.00	3.02	3.06	3.11	3.14	3.18	3.21	3.24	3.28
Total Electricity Generation	238.32	236.04	249.39	267.43	276.70	281.28	284.06	287.75	291.49	290.45	292.73	293.86	295.05
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	6.9	6.7	6.4	6.3	6.1	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2
Commercial	6.4	6.2	5.8	5.6	5.4	5.2	5.3	5.3	5.3	5.2	5.2	5.3	5.5
Industrial	4.6	4.4	4.5	4.4	4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.2	4.3
Transportation	5.2	5.0	5.4	5.3	5.1	4.9	5.0	5.0	5.0	4.9	4.9	5.0	5.1
All Sectors Average	6.0	5.9	5.6	5.5	5.3	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.4
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	3.4	3.2	3.0	2.9	2.7	2.6	2.6	2.6	2.7	2.6	2.7	2.8	2.9



**Table 70. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Northwest Power Pool Area**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Distribution	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Fuel Consumption (quadrillion Btu) 9/													
Coal	0.89	0.88	0.87	0.89	0.91	0.93	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Natural Gas	0.13	0.16	0.19	0.19	0.20	0.22	0.23	0.26	0.29	0.28	0.30	0.30	0.30
Oil	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	1.03	1.05	1.07	1.08	1.11	1.15	1.18	1.21	1.23	1.22	1.24	1.25	1.25
Fuel Prices (dollars per million Btu)													
Coal	1.01	0.92	0.89	0.91	0.91	0.90	0.90	0.90	0.90	0.95	0.94	0.94	0.93
Natural Gas	3.51	4.36	5.72	5.96	5.56	5.21	4.88	4.62	4.42	4.41	4.38	4.52	4.68
Distillate Fuel	6.17	7.04	7.76	7.46	7.08	6.67	6.31	6.16	6.01	6.04	6.03	6.07	6.08
Residual Fuel	4.69	5.62	6.35	6.21	5.86	5.45	5.26	5.13	5.09	5.14	5.19	5.25	5.30
Biomass	0.69	0.69	0.71	0.77	0.83	0.81	0.70	0.70	1.47	1.44	1.43	1.43	1.54
Emissions 10/													
Total Carbon (million tons)	28.00	28.51	28.33	28.82	29.51	30.41	30.96	31.35	31.81	31.62	31.86	32.01	32.01
Carbon Dioxide (million tons)	102.68	104.55	103.88	105.69	108.22	111.51	113.52	114.94	116.63	115.93	116.81	117.35	117.37
Sulfur Dioxide (million tons)	0.13	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Nitrogen Oxide (million tons)	0.12	0.11	0.16	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Mercury (tons)	1.72	1.76	1.74	1.77	1.81	1.84	1.85	1.81	1.79	1.79	1.78	1.77	1.77

**Table 70. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Northwest Power Pool Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	11.59	11.59	11.59	11.59	11.59	11.59	11.59	11.61	12.76	12.76	13.81	0.8%
Other Fossil Steam 2/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-16.1%
Combined Cycle	5.17	6.52	7.86	9.32	10.41	10.58	10.58	10.72	10.72	10.72	10.72	5.3%
Combustion Turbine/Diesel	1.72	1.72	1.72	1.72	1.91	3.13	4.30	5.33	5.52	6.93	7.10	5.0%
Nuclear Power	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	0.0%
Pumped Storage/Other 3/	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	36.56	36.70	36.87	37.06	37.36	37.58	37.88	38.18	38.26	38.31	38.55	0.3%
Distributed Generation 5/	0.00	0.02	0.04	0.07	0.12	0.18	0.23	0.42	0.62	0.84	1.04	N/A
Total Capacity	56.50	58.00	59.54	61.21	62.84	64.50	66.03	67.70	69.32	71.00	72.68	1.2%
Cumulative Planned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	N/A
Combustion Turbine/Diesel	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.16	0.17	0.17	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.23	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	1.84	1.85	1.86	1.86	1.87	1.87	1.88	1.89	1.89	1.90	1.91	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	1.18	1.18	2.24	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.21	1.56	2.90	4.35	5.45	5.61	5.61	5.75	5.75	5.75	5.75	N/A
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.19	1.40	2.58	3.60	3.80	5.21	5.38	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.27	0.40	0.57	0.75	1.04	1.26	1.55	1.85	1.92	1.97	2.20	N/A
Distributed Generation 5/	0.00	0.02	0.04	0.07	0.12	0.18	0.23	0.42	0.62	0.84	1.04	N/A
Total Unplanned Additions	0.50	1.99	3.53	5.19	6.82	8.47	9.99	11.65	13.27	14.95	16.62	N/A
Cumulative Total Additions	2.34	3.84	5.38	7.05	8.69	10.35	11.87	13.54	15.16	16.85	18.52	N/A
Cumulative Retirements 7/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 3/	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	N/A
Total	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	N/A
End Use Sector 8/												
Coal	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.0%
Petroleum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4.2%
Natural Gas	0.23	0.24	0.24	0.25	0.26	0.27	0.28	0.28	0.29	0.30	0.31	2.9%
Other Gaseous Fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-0.3%
Renewable Sources 4/	0.52	0.52	0.54	0.55	0.57	0.59	0.60	0.62	0.65	0.67	0.70	2.7%
Other	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%

**Table 70. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Northwest Power Pool Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	0.88	0.89	0.91	0.94	0.96	0.99	1.02	1.04	1.08	1.11	1.15	2.4%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	92.57	94.40	95.84	97.51	99.11	100.94	102.17	103.74	105.51	107.52	109.02	2.0%
Commercial/Other	96.20	99.14	102.20	105.29	108.30	111.24	114.23	117.38	120.80	124.35	128.08	3.1%
Industrial	76.88	77.76	79.20	80.58	81.95	83.26	84.54	85.89	87.43	89.14	90.80	1.9%
Transportation	2.29	2.35	2.40	2.46	2.52	2.58	2.64	2.70	2.77	2.83	2.90	2.5%
Total Sales	267.95	273.64	279.64	285.83	291.88	298.03	303.57	309.71	316.50	323.84	330.81	2.3%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	5.43	4.65	1.64	0.48	0.35	0.23	0.12	0.00	0.00	0.00	0.00	N/A
Gross International Exports	6.46	6.40	6.33	6.27	6.21	6.14	6.08	6.02	5.96	5.90	5.84	0.4%
Gross Interregional Electricity Imports	13.83	12.70	10.17	8.29	6.97	6.33	7.06	8.40	8.30	13.58	14.77	-2.3%
Gross Interregional Electricity Exports	17.77	17.14	14.26	13.32	13.86	11.67	9.83	8.84	8.68	7.59	8.17	-7.9%
Purchases from Combined Heat and Power 8/	1.17	1.20	1.26	1.32	1.38	1.45	1.51	1.56	1.62	1.67	1.73	5.1%
Electric Power Sector Generation for Customers	291.96	299.30	308.22	316.90	325.26	330.28	333.64	337.84	344.87	346.20	352.88	2.0%
Total Net Energy for Load	288.16	294.31	300.71	307.40	313.89	320.48	326.42	332.94	340.15	347.96	355.36	2.5%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	87.76	87.84	87.77	87.90	87.92	87.92	87.92	88.04	96.51	96.51	104.28	1.1%
Petroleum	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.72	0.72	0.80	1.3%
Natural Gas	38.66	44.86	52.58	60.01	66.45	69.92	71.37	73.62	71.34	72.11	69.59	6.1%
Nuclear	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	0.7%
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	157.71	158.77	160.04	161.16	163.06	164.61	166.52	168.34	169.11	169.66	171.02	1.5%
Total Generation	293.71	301.04	309.97	318.65	327.00	332.03	335.38	339.58	346.62	347.94	354.62	1.9%
Sales to Customers	291.96	299.30	308.22	316.90	325.26	330.28	333.64	337.84	344.87	346.20	352.88	2.0%
Generation for Own Use	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	-0.3%
Distributed Generation 5/	0.00	0.01	0.02	0.03	0.05	0.08	0.10	0.18	0.27	0.37	0.46	N/A
<b>End Use Sector 8/</b>												
Coal	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.0%
Petroleum	0.13	0.13	0.14	0.14	0.15	0.16	0.17	0.17	0.17	0.17	0.17	3.8%
Natural Gas	1.50	1.55	1.61	1.67	1.73	1.80	1.87	1.94	2.01	2.09	2.16	3.7%
Other Gaseous Fuels	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	-0.4%
Renewable Sources 4/	2.20	2.21	2.26	2.31	2.36	2.41	2.46	2.51	2.57	2.62	2.67	2.0%
Other	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.0%
Total	4.48	4.56	4.66	4.78	4.90	5.03	5.16	5.28	5.41	5.54	5.67	2.3%
Sales to Utilities	1.17	1.20	1.26	1.32	1.38	1.45	1.51	1.56	1.62	1.67	1.73	5.1%
Generation for Own Use	3.32	3.35	3.40	3.46	3.52	3.59	3.65	3.72	3.79	3.87	3.94	1.5%
Total Electricity Generation	298.19	305.61	314.65	323.45	331.96	337.14	340.65	345.05	352.30	353.85	360.75	1.9%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	6.3	6.3	6.3	6.5	6.6	6.7	6.8	6.9	6.9	7.0	7.0	0.2%
Commercial	5.5	5.5	5.6	5.7	5.9	6.0	6.1	6.2	6.3	6.3	6.4	0.1%
Industrial	4.4	4.4	4.4	4.5	4.6	4.7	4.8	4.8	4.9	4.9	5.0	0.5%
Transportation	5.2	5.2	5.2	5.3	5.4	5.5	5.6	5.7	5.7	5.8	5.8	0.6%
All Sectors Average	5.5	5.5	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.2	0.2%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	3.0	3.0	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.7	0.6%

**Table 70. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Northwest Power Pool Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.7%
Distribution	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	-0.8%
Fuel Consumption (quadrillion Btu) 9/												
Coal	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	1.02	1.02	1.08	1.0%
Natural Gas	0.31	0.35	0.39	0.44	0.48	0.50	0.51	0.53	0.51	0.52	0.50	5.2%
Oil	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-0.4%
Total	1.26	1.30	1.34	1.39	1.43	1.45	1.46	1.48	1.53	1.54	1.59	1.9%
Fuel Prices (dollars per million Btu)												
Coal	0.94	0.94	0.96	0.96	0.96	0.96	0.96	0.96	1.03	1.02	1.05	0.6%
Natural Gas	4.76	4.83	4.80	5.02	5.16	5.22	5.37	5.47	5.49	5.60	5.63	1.2%
Distillate Fuel	6.15	6.22	6.27	6.41	6.52	6.73	6.92	7.07	7.16	7.12	7.08	0.0%
Residual Fuel	5.35	5.40	5.45	5.50	5.56	5.61	5.67	5.72	5.78	5.84	5.89	0.2%
Biomass	1.51	1.67	1.67	1.72	1.70	1.70	1.73	1.74	1.76	1.79	1.87	4.7%
Emissions 10/												
Total Carbon (million tons)	32.20	32.78	33.49	34.25	34.88	35.26	35.44	35.73	37.61	37.72	39.40	1.5%
Carbon Dioxide (million tons)	118.08	120.21	122.80	125.59	127.90	129.29	129.94	131.01	137.90	138.32	144.48	1.5%
Sulfur Dioxide (million tons)	0.13	0.13	0.12	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.2%
Nitrogen Oxide (million tons)	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.19	0.19	2.4%
Mercury (tons)	1.77	1.78	1.77	1.78	1.78	1.78	1.75	1.75	1.74	1.74	1.77	0.0%

**Table 70. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Northwest Power Pool Area**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 71. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	15.76	15.67	15.67	15.67	16.07	16.07	16.07	16.07	16.07	16.07	16.07	16.07	17.00
Other Fossil Steam 2/	2.78	2.67	2.67	2.67	2.63	2.63	2.63	2.63	2.63	2.63	2.13	2.13	2.13
Combined Cycle	7.00	12.96	14.84	15.60	15.88	15.88	16.41	16.41	16.41	16.41	16.41	16.41	16.41
Combustion Turbine/Diesel	5.53	6.10	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16
Nuclear Power	2.78	2.78	2.78	2.73	2.73	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Pumped Storage/Other 3/	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	6.14	6.66	6.68	6.88	6.91	6.91	6.91	6.92	6.92	6.93	6.93	6.94	6.94
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capacity	40.77	47.61	49.57	50.50	51.16	51.18	51.71	51.72	51.72	51.73	51.23	51.24	52.17
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	1.87	2.64	2.92	2.92	3.44	3.44	3.44	3.44	3.44	3.44	3.44
Combustion Turbine/Diesel	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.02	0.23	0.25	0.26	0.26	0.27	0.27	0.28	0.28	0.29	0.29
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	1.96	2.94	3.63	3.64	4.17	4.17	4.18	4.19	4.19	4.19	4.20
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93
Cumulative Total Additions	0.00	0.00	1.96	2.94	3.63	3.64	4.17	4.17	4.18	4.19	4.19	4.19	5.13
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.04	0.54	0.54	0.54
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	0.00	0.00	0.00	0.01	0.05	0.05	0.05	0.05	0.05	0.05	0.55	0.55	0.55
End Use Sector 8/													
Coal	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Petroleum	0.03	0.02	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Natural Gas	0.12	0.12	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.15	0.15	0.16	0.16
Other Gaseous Fuels	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 71. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	0.28	0.27	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.32	0.32	0.32	0.33
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	58.67	60.59	60.96	62.75	64.08	65.89	67.95	69.63	71.44	73.16	74.90	76.19	77.73
Commercial/Other	59.83	60.94	61.76	63.20	65.24	67.70	70.26	72.80	75.32	77.87	80.34	82.77	85.22
Industrial	35.34	35.05	36.08	36.77	37.59	38.18	39.05	39.79	40.26	40.86	41.42	41.89	42.63
Transportation	1.00	1.03	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.27	1.31	1.34	1.37
Total Sales	154.83	157.61	159.85	163.81	168.03	172.92	178.44	183.43	188.27	193.17	197.97	202.19	206.95
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross Interregional Electricity Imports	18.67	17.86	14.66	15.98	14.36	14.46	14.93	14.21	14.02	13.67	13.94	13.81	12.94
Gross Interregional Electricity Exports	45.28	43.15	53.55	47.82	47.44	47.55	51.62	54.44	57.41	58.97	58.89	56.74	55.62
Purchases from Combined Heat and Power 8/	0.18	0.17	0.18	0.19	0.22	0.23	0.24	0.26	0.27	0.28	0.30	0.31	0.32
Electric Power Sector Generation for Customers	189.47	188.96	212.16	209.25	214.90	220.05	229.48	238.20	246.44	253.46	258.11	260.47	265.13
Total Net Energy for Load	163.04	163.84	173.45	177.60	182.04	187.19	193.03	198.24	203.32	208.44	213.46	217.84	222.78
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	111.85	114.03	111.22	113.75	116.72	120.74	121.68	121.66	121.63	121.66	121.71	121.71	128.58
Petroleum	0.12	0.14	1.75	1.79	2.11	2.84	1.85	2.09	2.97	2.92	3.28	3.48	3.81
Natural Gas	39.19	38.95	61.70	53.99	55.48	55.51	64.83	73.25	80.54	87.53	91.76	93.85	91.24
Nuclear	22.40	20.74	21.43	21.24	21.30	21.55	21.60	21.66	21.72	21.77	21.83	21.89	21.94
Pumped Storage/Other 3/	-0.05	0.10	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24
Renewable Sources 4/	16.62	15.68	18.68	21.14	21.95	22.07	22.17	22.20	22.24	22.23	22.19	22.20	22.21
Total Generation	190.14	189.64	214.55	211.66	217.32	222.47	231.90	240.62	248.86	255.88	260.53	262.88	267.55
Sales to Customers	189.47	188.96	212.16	209.25	214.90	220.05	229.48	238.20	246.44	253.46	258.11	260.47	265.13
Generation for Own Use	0.66	0.67	2.39	2.41	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>End Use Sector 8/</b>													
Coal	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Petroleum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Natural Gas	0.60	0.55	0.57	0.59	0.63	0.65	0.67	0.69	0.72	0.74	0.77	0.79	0.82
Other Gaseous Fuels	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.00	0.94	0.97	0.98	1.03	1.04	1.07	1.10	1.12	1.15	1.17	1.20	1.22
Sales to Utilities	0.18	0.17	0.18	0.19	0.22	0.23	0.24	0.26	0.27	0.28	0.30	0.31	0.32
Generation for Own Use	0.83	0.78	0.79	0.80	0.81	0.81	0.83	0.84	0.85	0.86	0.87	0.89	0.90
Total Electricity Generation	191.14	190.58	215.52	212.65	218.34	223.51	232.96	241.72	249.98	257.02	261.70	264.08	268.78
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	8.5	8.5	9.0	9.3	9.1	8.7	8.5	8.4	8.3	8.3	8.4	8.6	8.6
Commercial	7.2	7.3	8.0	8.2	8.0	7.7	7.5	7.3	7.1	7.0	7.2	7.4	7.5
Industrial	5.5	5.7	6.4	6.6	6.5	6.2	6.0	5.8	5.6	5.5	5.7	5.8	5.8
Transportation	6.7	7.0	7.6	7.9	7.7	7.4	7.3	7.1	7.1	7.1	7.2	7.4	7.4
All Sectors Average	7.3	7.4	8.0	8.2	8.1	7.8	7.5	7.4	7.3	7.2	7.3	7.5	7.6
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	4.7	4.8	5.5	5.7	5.5	5.2	5.0	4.8	4.7	4.7	4.8	5.0	5.1

**Table 71. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
Distribution	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.21	1.18	1.16	1.19	1.22	1.26	1.27	1.27	1.27	1.27	1.27	1.27	1.33
Natural Gas	0.35	0.34	0.49	0.43	0.44	0.44	0.51	0.58	0.64	0.69	0.72	0.74	0.72
Oil	0.00	0.00	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.04
Total	1.57	1.52	1.67	1.64	1.69	1.73	1.81	1.87	1.93	1.99	2.03	2.05	2.09
Fuel Prices (dollars per million Btu)													
Coal	1.18	1.16	1.10	1.16	1.15	1.13	1.13	1.13	1.12	1.11	1.09	1.09	1.09
Natural Gas	3.10	4.79	5.92	6.21	5.91	5.56	5.19	4.92	4.74	4.70	4.84	4.99	5.10
Distillate Fuel	6.49	7.41	8.16	7.85	7.93	7.14	6.79	6.48	6.24	6.21	6.15	6.16	6.16
Residual Fuel	4.57	5.49	6.35	6.21	5.86	5.45	5.26	5.13	4.50	4.53	4.57	4.63	4.68
Biomass	0.69	0.69	0.93	1.06	1.07	1.13	0.88	0.89	0.90	0.96	1.03	1.04	1.05
Emissions 10/													
Total Carbon (million tons)	40.58	40.12	41.57	41.40	42.50	43.76	45.00	46.07	47.13	47.94	48.59	48.93	50.35
Carbon Dioxide (million tons)	148.78	147.12	152.41	151.79	155.84	160.45	165.00	168.94	172.82	175.80	178.15	179.42	184.61
Sulfur Dioxide (million tons)	0.14	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13
Nitrogen Oxide (million tons)	0.28	0.26	0.21	0.22	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.24
Mercury (tons)	1.81	1.74	1.73	1.74	1.80	1.84	1.85	1.84	1.65	1.76	1.77	1.76	1.77



**Table 71. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	18.01	19.13	20.29	21.53	22.69	23.80	24.82	25.96	27.23	28.53	29.53	2.9%
Other Fossil Steam 2/	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	-1.0%
Combined Cycle	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	1.1%
Combustion Turbine/Diesel	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.54	0.3%
Nuclear Power	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	0.0%
Pumped Storage/Other 3/	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	6.94	6.95	6.95	6.96	6.96	6.96	6.97	6.97	6.97	7.10	7.17	0.3%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.06	0.11	0.16	0.23	0.29	0.36	N/A
Total Capacity	53.18	54.31	55.47	56.71	57.87	59.05	60.12	61.32	62.65	64.15	65.67	1.5%
Cumulative Planned Additions 6/												
Coal Steam	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	3.44	3.44	3.44	3.44	3.44	3.44	3.44	3.44	3.44	3.44	3.44	N/A
Combustion Turbine/Diesel	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.29	0.30	0.30	0.30	0.31	0.31	0.31	0.32	0.32	0.32	0.33	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	4.20	4.20	4.21	4.21	4.21	4.22	4.22	4.22	4.23	4.23	4.24	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	1.94	3.06	4.22	5.46	6.62	7.73	8.74	9.89	11.16	12.46	13.46	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.19	0.19	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.06	0.11	0.16	0.23	0.29	0.36	N/A
Total Unplanned Additions	1.94	3.06	4.22	5.46	6.62	7.78	8.85	10.05	11.38	12.88	14.39	N/A
Cumulative Total Additions	6.14	7.26	8.43	9.67	10.83	12.00	13.07	14.28	15.61	17.11	18.62	N/A
Cumulative Retirements 7/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 3/	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	N/A
Total	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	N/A
End Use Sector 8/												
Coal	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.0%
Petroleum	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	4.2%
Natural Gas	0.16	0.17	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21	0.22	2.9%
Other Gaseous Fuels	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	-0.3%
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A

**Table 71. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	0.33	0.34	0.34	0.35	0.36	0.37	0.37	0.38	0.39	0.39	0.40	1.9%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	79.35	81.22	82.81	84.54	86.13	87.86	89.08	90.65	92.32	94.19	95.67	2.1%
Commercial/Other	87.86	90.71	93.71	96.67	99.48	102.12	104.83	107.75	110.89	114.23	117.81	3.0%
Industrial	43.10	43.49	44.23	45.02	45.82	46.57	47.33	48.10	48.97	49.91	50.81	1.7%
Transportation	1.41	1.44	1.48	1.52	1.55	1.59	1.63	1.67	1.71	1.75	1.80	2.6%
Total Sales	211.72	216.87	222.22	227.74	232.98	238.14	242.87	248.17	253.89	260.08	266.08	2.4%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross International Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross Interregional Electricity Imports	12.69	10.13	7.23	4.82	4.73	4.65	4.35	4.42	4.55	4.22	4.22	-6.4%
Gross Interregional Electricity Exports	53.37	50.80	50.24	47.35	44.18	43.10	42.94	41.80	41.52	41.62	41.66	-0.2%
Purchases from Combined Heat and Power 8/	0.34	0.35	0.37	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.53	5.4%
Electric Power Sector Generation for Customers	268.08	273.59	281.68	287.12	289.64	294.15	299.34	303.79	309.48	316.53	322.97	2.5%
Total Net Energy for Load	227.74	233.28	239.03	244.97	250.60	256.13	261.20	266.87	273.00	279.63	286.05	2.6%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	135.99	144.17	152.80	161.82	170.51	178.71	186.18	194.70	204.01	213.63	220.95	3.1%
Petroleum	3.88	3.53	2.31	2.40	2.49	2.57	2.64	2.73	2.82	2.92	2.99	15.1%
Natural Gas	86.64	84.20	84.93	81.19	75.07	71.29	68.92	64.82	61.11	57.71	56.19	1.7%
Nuclear	22.00	22.06	22.06	22.06	22.06	22.06	22.06	22.06	22.06	22.06	22.06	0.3%
Pumped Storage/Other 3/	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	N/A
Renewable Sources 4/	22.22	22.29	22.24	22.31	22.18	22.19	22.20	22.13	22.14	22.87	23.43	1.8%
Total Generation	270.49	276.01	284.10	289.54	292.06	296.57	301.76	306.21	311.90	318.95	325.39	2.5%
Sales to Customers	268.08	273.59	281.68	287.12	289.64	294.15	299.34	303.79	309.48	316.53	322.97	2.5%
Generation for Own Use	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	6.0%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.02	0.05	0.07	0.10	0.13	0.16	N/A
<b>End Use Sector 8/</b>												
Coal	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.0%
Petroleum	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	3.8%
Natural Gas	0.85	0.87	0.91	0.94	0.98	1.01	1.05	1.09	1.13	1.17	1.22	3.7%
Other Gaseous Fuels	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-0.4%
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	2.0%
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	1.25	1.28	1.31	1.35	1.39	1.43	1.47	1.51	1.55	1.59	1.64	2.5%
Sales to Utilities	0.34	0.35	0.37	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.53	5.4%
Generation for Own Use	0.91	0.93	0.94	0.96	0.98	1.00	1.02	1.04	1.06	1.09	1.11	1.6%
Total Electricity Generation	271.75	277.29	285.41	290.89	293.45	298.02	303.28	307.79	313.55	320.67	327.18	2.5%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	8.6	8.5	8.4	8.4	8.5	8.6	8.7	8.7	8.7	8.8	8.8	0.2%
Commercial	7.5	7.4	7.3	7.3	7.4	7.5	7.6	7.7	7.7	7.8	7.8	0.3%
Industrial	5.9	5.7	5.6	5.6	5.7	5.8	5.9	5.9	5.9	6.0	6.0	0.2%
Transportation	7.4	7.3	7.1	7.1	7.2	7.3	7.4	7.4	7.4	7.5	7.5	0.3%
All Sectors Average	7.6	7.5	7.3	7.3	7.4	7.6	7.7	7.7	7.7	7.8	7.8	0.3%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	5.1	4.9	4.8	4.8	4.9	5.0	5.1	5.1	5.1	5.2	5.3	0.4%

**Table 71. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4%
Distribution	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	-0.5%
Fuel Consumption (quadrillion Btu) 9/												
Coal	1.39	1.46	1.54	1.62	1.69	1.76	1.83	1.90	1.98	2.06	2.13	2.7%
Natural Gas	0.69	0.67	0.67	0.64	0.60	0.57	0.55	0.52	0.49	0.46	0.45	1.3%
Oil	0.04	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	14.5%
Total	2.12	2.16	2.24	2.28	2.31	2.35	2.40	2.45	2.50	2.56	2.61	2.5%
Fuel Prices (dollars per million Btu)												
Coal	1.10	1.11	1.15	1.17	1.19	1.22	1.25	1.27	1.40	1.44	1.42	0.9%
Natural Gas	5.20	5.00	4.75	4.75	4.92	5.15	5.30	5.35	5.41	5.53	5.63	0.7%
Distillate Fuel	6.23	6.36	6.54	6.72	6.88	7.04	7.26	7.38	7.53	7.41	7.33	-0.1%
Residual Fuel	4.74	4.79	4.84	4.89	4.95	5.02	5.07	5.14	5.20	5.24	5.30	-0.2%
Biomass	1.05	0.98	1.05	1.13	1.13	1.17	1.19	1.07	1.07	1.61	1.73	4.3%
Emissions 10/												
Total Carbon (million tons)	51.56	53.16	55.12	56.87	58.21	59.76	61.38	63.00	64.85	66.81	68.51	2.5%
Carbon Dioxide (million tons)	189.06	194.94	202.11	208.53	213.45	219.14	225.08	230.99	237.77	244.99	251.20	2.5%
Sulfur Dioxide (million tons)	0.13	0.13	0.14	0.14	0.14	0.15	0.13	0.13	0.13	0.13	0.12	-0.3%
Nitrogen Oxide (million tons)	0.24	0.24	0.25	0.25	0.25	0.26	0.26	0.27	0.27	0.27	0.28	0.2%
Mercury (tons)	1.72	1.77	1.77	1.78	1.79	1.77	1.75	1.74	1.73	1.71	1.74	0.0%

**Table 71. Electric Power Projections for Electricity Market Module Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 72. Electric Power Projections for Electricity Market Module Region Western Electricity Coordinating Council/California**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	5.31	6.60	7.53
Other Fossil Steam 2/	19.10	17.52	17.52	17.52	17.52	17.52	17.52	17.52	17.52	17.52	17.05	17.05	17.05
Combined Cycle	6.66	9.55	9.79	12.08	12.08	12.62	13.14	13.14	13.14	13.14	13.14	13.14	13.80
Combustion Turbine/Diesel	6.40	6.97	7.00	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98
Nuclear Power	5.37	5.37	5.37	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36
Pumped Storage/Other 3/	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	14.74	14.97	14.94	15.05	15.08	15.08	15.09	15.09	15.18	15.18	15.28	15.44	15.47
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capacity	60.42	62.52	62.76	65.12	65.16	65.70	66.23	66.24	66.32	66.33	66.82	68.26	69.88
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.24	2.53	2.53	3.07	3.59	3.59	3.59	3.59	3.59	3.59	3.59
Combustion Turbine/Diesel	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.02	0.13	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.20	0.21
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	0.31	2.71	2.75	3.29	3.82	3.82	3.82	3.83	3.83	3.84	3.85
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	2.14	3.07
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.18	0.33	0.35
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	1.03	2.47	4.08
Cumulative Total Additions	0.00	0.00	0.31	2.71	2.75	3.29	3.82	3.82	3.90	3.91	4.87	6.31	7.93
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.47	0.47
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combustion Turbine/Diesel	0.00	0.00	0.01	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Total	0.00	0.00	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.56	0.56	0.56
End Use Sector 8/													
Coal	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Petroleum	0.11	0.08	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.16	0.16	0.16
Natural Gas	2.02	2.05	2.17	2.20	2.24	2.28	2.34	2.41	2.47	2.54	2.60	2.67	2.74
Other Gaseous Fuels	0.20	0.19	0.19	0.19	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17
Renewable Sources 4/	0.20	0.20	0.21	0.23	0.23	0.24	0.24	0.25	0.26	0.26	0.26	0.26	0.27
Other	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

**Table 72. Electric Power Projections for Electricity Market Module Region Western Electricity Coordinating Council/California**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	2.60	2.59	2.81	2.85	2.87	2.92	2.99	3.06	3.14	3.20	3.27	3.34	3.41
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	75.80	76.14	78.87	81.29	82.50	84.11	86.28	87.90	89.61	91.35	93.31	94.66	96.17
Commercial/Other	106.54	108.24	113.38	115.16	118.74	122.66	126.90	131.06	135.15	139.37	143.59	147.82	152.00
Industrial	46.27	44.65	47.42	48.32	51.38	52.23	53.18	53.91	54.28	54.90	55.45	55.95	56.67
Transportation	2.19	2.19	2.32	2.37	2.43	2.49	2.55	2.62	2.68	2.74	2.80	2.86	2.93
Total Sales	230.80	231.21	241.97	247.14	255.05	261.49	268.91	275.49	281.72	288.36	295.15	301.29	307.76
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Gross International Exports	1.31	1.31	1.36	1.41	1.46	1.51	1.56	1.61	1.61	1.61	1.61	1.61	1.61
Gross Interregional Electricity Imports	73.28	70.68	70.24	73.81	74.02	73.00	71.64	72.66	74.41	71.51	68.59	63.26	58.32
Gross Interregional Electricity Exports	11.11	10.57	9.10	6.54	3.19	3.19	3.19	3.19	3.21	3.24	3.38	4.37	4.86
Purchases from Combined Heat and Power 8/	4.30	4.00	4.42	4.63	5.59	5.83	6.29	6.75	7.17	7.52	7.88	8.25	8.65
Electric Power Sector Generation for Customers	200.42	203.40	198.37	197.45	201.35	208.94	217.73	223.12	227.49	236.97	246.76	259.07	270.79
Total Net Energy for Load	265.75	266.35	262.58	267.96	276.32	283.08	290.92	297.73	304.26	311.16	318.25	324.62	331.31
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	33.50	33.71	32.06	32.75	33.35	33.97	34.37	34.37	34.36	34.36	40.67	50.16	57.00
Petroleum	1.80	1.92	1.61	1.63	1.62	1.63	1.62	1.62	1.62	1.58	1.65	1.74	1.80
Natural Gas	77.21	75.54	78.66	72.49	73.97	80.75	89.06	94.34	97.99	107.43	110.12	111.90	116.40
Nuclear	42.81	43.43	44.14	44.19	44.27	44.43	44.52	44.61	44.70	44.75	44.77	44.79	44.81
Pumped Storage/Other 3/	-0.24	-0.90	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88
Renewable Sources 4/	49.80	53.27	50.28	54.80	56.55	56.56	56.57	56.59	57.23	57.25	57.97	58.90	59.20
Total Generation	204.88	206.97	205.86	204.98	208.87	216.47	225.26	230.65	235.02	244.50	254.29	266.60	278.32
Sales to Customers	200.42	203.40	198.37	197.45	201.35	208.94	217.73	223.12	227.49	236.97	246.76	259.07	270.79
Generation for Own Use	4.46	3.57	7.49	7.52	7.52	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>End Use Sector 8/</b>													
Coal	0.50	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Petroleum	0.79	0.83	0.92	0.92	1.10	1.09	1.19	1.28	1.33	1.34	1.35	1.36	1.38
Natural Gas	16.20	14.71	15.49	15.82	16.99	17.42	18.06	18.73	19.41	20.05	20.70	21.38	22.10
Other Gaseous Fuels	0.88	0.88	0.88	0.88	0.61	0.61	0.63	0.64	0.66	0.67	0.68	0.70	0.71
Renewable Sources 4/	1.22	1.26	1.33	1.39	1.41	1.43	1.46	1.49	1.51	1.53	1.55	1.56	1.58
Other	1.09	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21
Total	20.70	19.37	20.32	20.71	21.80	22.25	23.03	23.84	24.61	25.28	25.98	26.70	27.47
Sales to Utilities	4.30	4.00	4.42	4.63	5.59	5.83	6.29	6.75	7.17	7.52	7.88	8.25	8.65
Generation for Own Use	16.40	15.38	15.90	16.08	16.21	16.42	16.75	17.09	17.44	17.76	18.09	18.44	18.82
Total Electricity Generation	225.58	226.34	226.18	225.69	230.68	238.72	248.30	254.49	259.63	269.78	280.26	293.30	305.79
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	13.2	12.0	12.7	12.7	12.5	12.2	11.4	11.3	11.1	10.8	10.6	10.6	10.6
Commercial	13.5	11.9	11.7	11.5	11.2	10.9	10.4	10.2	10.1	9.8	9.7	9.7	9.6
Industrial	11.1	10.4	10.6	10.5	10.3	10.0	9.8	9.6	9.4	9.1	9.0	8.9	8.9
Transportation	11.6	10.5	11.0	10.9	10.7	10.3	10.1	9.9	9.7	9.4	9.2	9.2	9.1
All Sectors Average	12.8	11.7	11.8	11.7	11.4	11.1	10.6	10.4	10.3	10.0	9.8	9.8	9.8
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	8.6	7.5	7.7	7.6	7.4	7.1	6.9	6.7	6.6	6.4	6.2	6.2	6.2

**Table 72. Electric Power Projections for Electricity Market Module Region Western Electricity Coordinating Council/California**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
Distribution	3.5	3.5	3.5	3.5	3.4	3.4	3.1	3.0	3.0	3.0	2.9	2.9	2.9
Fuel Consumption (quadrillion Btu) 9/													
Coal	0.34	0.33	0.33	0.33	0.34	0.35	0.35	0.35	0.35	0.35	0.40	0.49	0.54
Natural Gas	0.77	0.71	0.72	0.68	0.69	0.74	0.80	0.84	0.87	0.95	0.98	0.99	1.02
Oil	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total	1.13	1.07	1.06	1.03	1.04	1.10	1.17	1.21	1.24	1.32	1.40	1.50	1.58
Fuel Prices (dollars per million Btu)													
Coal	1.19	1.16	1.10	1.18	1.17	1.15	1.15	1.14	1.13	1.11	1.08	1.07	1.08
Natural Gas	3.76	5.14	6.66	6.99	6.61	6.29	5.93	5.60	5.40	5.36	5.46	5.60	5.67
Distillate Fuel	6.18	7.06	7.65	7.36	6.81	6.45	6.18	6.06	5.91	5.96	5.99	6.05	6.08
Residual Fuel	4.69	5.62	6.35	6.21	5.86	5.45	5.26	5.13	5.09	5.14	5.19	5.25	5.30
Biomass	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	1.52	1.52	1.52	1.52	1.65
Emissions 10/													
Total Carbon (million tons)	19.62	20.12	21.19	20.68	21.04	22.04	23.16	23.82	24.33	25.57	27.51	30.04	32.14
Carbon Dioxide (million tons)	71.94	73.79	77.71	75.82	77.14	80.82	84.91	87.35	89.21	93.75	100.87	110.13	117.86
Sulfur Dioxide (million tons)	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Nitrogen Oxide (million tons)	0.01	0.01	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10
Mercury (tons)	0.35	0.28	0.28	0.29	0.29	0.30	0.30	0.30	0.28	0.32	0.33	0.33	0.34

**Table 72. Electric Power Projections for Electricity Market Module Region Western Electricity Coordinating Council/California**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	7.98	8.48	10.28	10.28	12.08	13.91	15.68	17.55	19.46	21.25	23.07	7.8%
Other Fossil Steam 2/	17.05	17.05	17.05	17.05	17.05	17.05	17.05	17.05	17.05	17.05	17.05	-0.1%
Combined Cycle	14.93	16.21	16.21	18.20	18.20	18.20	18.20	18.20	18.20	18.20	18.20	3.0%
Combustion Turbine/Diesel	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	7.09	7.21	0.2%
Nuclear Power	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	0.0%
Pumped Storage/Other 3/	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	15.50	15.51	15.52	15.53	15.60	15.71	15.76	15.77	15.98	16.33	16.66	0.5%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.16	0.25	0.36	0.46	N/A
Total Capacity	71.50	73.28	75.09	77.10	78.97	80.95	82.80	84.77	86.98	89.34	91.71	1.8%
Cumulative Planned Additions 6/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	N/A
Combustion Turbine/Diesel	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.21	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.27	0.28	0.29	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	3.85	3.86	3.87	3.88	3.88	3.89	3.90	3.91	3.91	3.92	3.93	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	3.53	4.03	5.83	5.83	7.63	9.46	11.22	13.10	15.01	16.80	18.62	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	1.79	3.07	3.07	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06	N/A
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.23	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.38	0.38	0.38	0.38	0.44	0.54	0.59	0.59	0.79	1.14	1.46	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.16	0.25	0.36	0.46	N/A
Total Unplanned Additions	5.69	7.47	9.27	11.27	13.13	15.10	16.95	18.91	21.12	23.47	25.82	N/A
Cumulative Total Additions	9.55	11.33	13.14	15.14	17.02	18.99	20.84	22.82	25.03	27.39	29.75	N/A
Cumulative Retirements 7/												
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other Fossil Steam 3/	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combustion Turbine/Diesel	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	N/A
Total	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	N/A
End Use Sector 8/												
Coal	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0%
Petroleum	0.16	0.16	0.17	0.17	0.18	0.19	0.19	0.19	0.19	0.19	0.19	4.2%
Natural Gas	2.81	2.88	2.96	3.05	3.15	3.25	3.36	3.46	3.57	3.69	3.80	2.9%
Other Gaseous Fuels	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.18	-0.3%
Renewable Sources 4/	0.27	0.28	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.36	0.37	2.7%
Other	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.0%



**Table 72. Electric Power Projections for Electricity Market Module Region Western Electricity Coordinating Council/California**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	3.49	3.57	3.66	3.77	3.88	4.00	4.12	4.23	4.36	4.48	4.61	2.7%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	97.70	99.44	100.74	102.32	103.88	105.71	106.90	108.42	110.19	112.22	113.70	1.8%
Commercial/Other	156.33	160.88	165.59	170.39	175.17	179.98	184.82	189.87	195.36	200.99	206.80	3.0%
Industrial	57.17	57.92	59.06	60.05	61.02	61.95	62.81	63.77	64.86	66.13	67.37	1.9%
Transportation	2.99	3.06	3.13	3.21	3.28	3.36	3.44	3.51	3.60	3.68	3.76	2.5%
Total Sales	314.19	321.29	328.52	335.97	343.36	351.00	357.97	365.57	374.01	383.02	391.63	2.4%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-12.0%
Gross International Exports	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	0.9%
Gross Interregional Electricity Imports	56.42	56.05	53.59	51.44	49.33	47.09	45.84	45.03	44.52	44.00	44.00	-2.1%
Gross Interregional Electricity Exports	4.73	4.36	2.73	2.58	2.26	2.82	3.63	5.33	5.86	10.36	11.63	0.4%
Purchases from Combined Heat and Power 8/	9.05	9.49	9.94	10.45	11.02	11.64	12.25	12.78	13.33	13.87	14.43	6.0%
Electric Power Sector Generation for Customers	278.83	286.04	294.18	303.69	312.86	323.24	332.17	342.29	351.82	365.94	375.86	2.8%
Total Net Energy for Load	337.97	345.61	353.39	361.40	369.35	377.55	385.03	393.17	402.20	411.85	421.07	2.1%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	60.36	64.03	77.27	77.27	90.53	104.04	117.01	130.82	144.86	158.05	171.46	7.7%
Petroleum	1.85	1.90	2.03	2.03	2.19	2.31	2.46	2.60	2.74	2.87	3.00	2.1%
Natural Gas	120.70	124.14	118.89	128.37	123.56	119.47	114.83	110.96	104.64	103.26	97.48	1.2%
Nuclear	44.83	44.86	44.86	44.86	44.86	44.86	44.86	44.86	44.86	44.86	44.86	0.1%
Pumped Storage/Other 3/	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.1%
Renewable Sources 4/	59.50	59.52	59.55	59.57	60.14	60.99	61.43	61.46	63.15	65.31	67.48	1.1%
Total Generation	286.36	293.57	301.71	311.22	320.39	330.77	339.70	349.82	359.35	373.47	383.39	2.8%
Sales to Customers	278.83	286.04	294.18	303.69	312.86	323.24	332.17	342.29	351.82	365.94	375.86	2.8%
Generation for Own Use	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53	3.4%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.07	0.11	0.16	0.20	N/A
<b>End Use Sector 8/</b>												
Coal	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.0%
Petroleum	1.44	1.50	1.55	1.60	1.69	1.79	1.91	1.91	1.91	1.89	1.89	3.8%
Natural Gas	22.80	23.57	24.42	25.32	26.29	27.31	28.36	29.42	30.51	31.65	32.83	3.7%
Other Gaseous Fuels	0.72	0.73	0.74	0.75	0.75	0.76	0.77	0.78	0.79	0.80	0.80	-0.4%
Renewable Sources 4/	1.60	1.62	1.65	1.68	1.72	1.76	1.80	1.83	1.88	1.91	1.95	2.0%
Other	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	0.0%
Total	28.26	29.12	30.04	31.05	32.15	33.32	34.54	35.64	36.78	37.95	39.17	3.3%
Sales to Utilities	9.05	9.49	9.94	10.45	11.02	11.64	12.25	12.78	13.33	13.87	14.43	6.0%
Generation for Own Use	19.21	19.63	20.10	20.59	21.13	21.68	22.28	22.86	23.46	24.07	24.73	2.2%
Total Electricity Generation	314.62	322.69	331.76	342.26	352.54	364.11	374.27	385.52	396.24	411.57	422.76	2.9%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	10.6	10.5	10.4	10.3	10.3	10.3	10.3	10.3	10.1	10.1	10.1	-0.8%
Commercial	9.6	9.5	9.4	9.3	9.3	9.3	9.3	9.3	9.1	9.1	9.1	-1.2%
Industrial	8.9	8.8	8.7	8.6	8.6	8.6	8.6	8.6	8.4	8.4	8.3	-1.0%
Transportation	9.0	8.9	8.8	8.7	8.6	8.6	8.6	8.5	8.3	8.3	8.2	-1.1%
All Sectors Average	9.8	9.7	9.6	9.5	9.5	9.5	9.5	9.5	9.3	9.3	9.2	-1.1%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	6.1	6.1	6.0	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	-1.1%

**Table 72. Electric Power Projections for Electricity Market Module Region Western Electricity Coordinating Council/California**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	1.6%
Distribution	2.9	2.9	2.8	2.8	2.8	2.8	2.7	2.7	2.5	2.5	2.5	-1.6%
Fuel Consumption (quadrillion Btu) 9/												
Coal	0.57	0.60	0.72	0.72	0.83	0.95	1.06	1.18	1.30	1.41	1.53	7.2%
Natural Gas	1.04	1.05	1.01	1.06	1.02	0.99	0.96	0.93	0.89	0.88	0.84	0.7%
Oil	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	1.2%
Total	1.63	1.67	1.75	1.80	1.88	1.97	2.05	2.14	2.22	2.32	2.40	3.7%
Fuel Prices (dollars per million Btu)												
Coal	1.10	1.12	1.20	1.21	1.25	1.27	1.29	1.31	1.53	1.49	1.41	0.9%
Natural Gas	5.69	5.57	5.43	5.42	5.57	5.70	5.88	5.97	6.01	6.13	6.19	0.8%
Distillate Fuel	6.15	6.23	6.30	6.44	6.58	6.81	7.02	7.17	7.32	7.25	7.20	0.1%
Residual Fuel	5.35	5.40	5.45	5.50	5.56	5.61	5.67	5.72	5.78	5.84	5.89	0.2%
Biomass	1.62	1.77	1.80	1.83	1.89	1.90	1.91	1.94	1.95	2.00	2.07	5.2%
Emissions 10/												
Total Carbon (million tons)	33.28	34.31	36.86	37.70	40.36	43.15	45.81	48.73	51.43	54.49	57.10	4.9%
Carbon Dioxide (million tons)	122.04	125.79	135.14	138.25	147.98	158.22	167.98	178.68	188.59	199.80	209.38	4.9%
Sulfur Dioxide (million tons)	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	2.0%
Nitrogen Oxide (million tons)	0.11	0.11	0.11	0.11	0.12	0.12	0.13	0.14	0.14	0.15	0.15	13.2%
Mercury (tons)	0.34	0.35	0.36	0.36	0.37	0.37	0.41	0.41	0.41	0.39	0.41	1.8%

**Table 72. Electric Power Projections for Electricity Market Module Region Western Electricity Coordinating Council/California**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 73. Electric Power Projections for Electricity Market Module Region United States**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electricity Generating Capacity 1/ (gigawatts)													
Electric Power Sector													
Coal Steam	310.88	310.31	310.33	310.39	309.45	310.18	310.18	309.69	309.69	309.69	309.97	311.26	313.26
Other Fossil Steam 2/	132.62	129.69	129.05	126.96	125.44	122.86	121.67	120.51	120.47	120.33	106.92	103.68	102.35
Combined Cycle	99.45	138.23	153.18	159.68	164.92	165.46	166.70	168.11	169.88	170.02	170.50	171.99	175.36
Combustion Turbine/Diesel	123.69	129.88	132.93	133.39	133.04	132.64	134.09	135.73	137.74	140.23	139.98	141.33	144.64
Nuclear Power	98.94	99.16	99.43	99.72	100.02	100.17	100.34	100.40	100.62	100.74	101.10	101.46	101.82
Pumped Storage/Other 3/	20.73	20.80	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	90.42	92.21	92.52	94.14	94.55	94.75	94.95	95.14	95.27	95.29	95.41	95.58	95.96
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.03	0.12	0.21	0.29	0.38	0.46	0.55	0.66	0.85
Total Capacity	876.74	920.28	938.31	945.16	948.32	947.05	949.00	950.73	954.92	957.63	945.30	946.83	955.11
Cumulative Planned Additions 6/													
Coal Steam	0.00	0.00	0.52	0.59	0.99	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	14.95	21.46	26.69	27.23	28.28	28.28	28.28	28.28	28.28	28.28	28.28
Combustion Turbine/Diesel	0.00	0.00	3.10	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.30	1.85	2.11	2.31	2.50	2.69	2.73	2.75	2.77	2.79	2.81
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Planned Additions	0.00	0.00	18.86	27.76	33.66	35.18	36.42	36.62	36.65	36.67	36.69	36.71	36.73
Cumulative Unplanned Additions 6/													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	2.14	4.14
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.19	1.59	3.51	3.65	4.30	5.87	9.24
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.18	1.68	3.60	5.88	8.47	11.01	12.38	15.69
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.15	0.15	0.25	0.40	0.77
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.03	0.12	0.21	0.29	0.38	0.46	0.55	0.66	0.85
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.03	0.32	2.10	5.50	9.92	12.74	16.96	21.46	30.69
Cumulative Total Additions	0.00	0.00	18.86	27.76	33.68	35.50	38.52	42.12	46.57	49.41	53.65	58.17	67.42
Cumulative Retirements 7/													
Coal Steam	0.00	0.00	0.49	0.51	1.85	1.91	1.91	2.40	2.40	2.40	2.98	2.98	2.98
Other Fossil Steam 3/	0.00	0.00	0.65	2.75	4.28	6.86	8.05	9.20	9.25	9.39	22.80	26.03	27.37
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.30	0.39	0.39
Combustion Turbine/Diesel	0.00	0.00	0.04	0.35	0.69	1.27	1.33	1.60	1.87	1.97	4.76	4.78	4.78
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 4/	0.00	0.00	0.06	0.07	0.07	0.07	0.07	0.07	0.10	0.10	0.10	0.10	0.10
Total	0.00	0.00	1.24	3.67	6.88	10.11	11.36	13.28	13.77	14.01	30.94	34.29	35.63
End Use Sector 8/													
Coal	4.17	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15
Petroleum	1.00	0.70	1.48	1.48	1.52	1.52	1.52	1.53	1.54	1.54	1.51	1.51	1.52
Natural Gas	14.16	14.37	15.20	15.43	15.72	16.01	16.44	16.89	17.35	17.79	18.23	18.70	19.19
Other Gaseous Fuels	1.81	1.77	1.77	1.77	1.49	1.49	1.50	1.52	1.53	1.54	1.55	1.56	1.58
Renewable Sources 4/	5.37	5.43	5.74	6.04	6.14	6.28	6.48	6.67	6.82	6.91	7.00	7.06	7.17
Other	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69

**Table 73. Electric Power Projections for Electricity Market Module Region United States**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	27.20	27.10	29.03	29.55	29.71	30.14	30.78	31.44	32.07	32.61	33.13	33.67	34.29
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	1266.98	1279.87	1287.78	1332.82	1356.31	1387.17	1421.54	1445.90	1471.17	1494.81	1521.12	1539.53	1561.32
Commercial/Other	1208.09	1209.85	1228.55	1262.11	1299.59	1343.04	1386.70	1427.08	1465.70	1503.97	1540.72	1577.21	1613.22
Industrial	972.16	968.93	1007.33	1030.43	1041.54	1057.88	1078.78	1097.86	1106.96	1119.57	1131.35	1140.29	1157.16
Transportation	22.17	22.69	23.13	23.65	24.14	24.66	25.17	25.69	26.21	26.71	27.24	27.76	28.29
Total Sales	3469.40	3481.34	3546.80	3649.01	3721.58	3812.75	3912.19	3996.52	4070.04	4145.06	4220.44	4284.79	4359.98
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	36.29	29.48	31.39	32.74	33.77	30.78	30.82	30.65	31.41	37.03	38.49	36.30	36.65
Gross International Exports	14.34	24.93	27.31	28.13	26.92	26.10	24.75	23.52	22.29	21.47	20.87	20.20	19.55
Gross Interregional Electricity Imports	309.29	331.20	329.43	318.37	319.09	319.74	316.84	315.17	308.19	307.84	302.85	287.60	271.99
Gross Interregional Electricity Exports	312.77	335.17	333.24	322.28	323.17	323.89	321.03	319.34	312.33	312.03	306.92	291.53	275.73
Purchases from Combined Heat and Power 8/	27.90	27.73	31.06	32.94	38.26	39.76	42.69	45.58	48.03	50.09	52.21	54.28	56.61
Electric Power Sector Generation for Customers	3650.07	3649.02	3758.73	3857.45	3924.85	4020.01	4119.73	4201.99	4273.30	4341.62	4414.65	4479.47	4552.40
Total Net Energy for Load	3696.44	3677.34	3790.04	3891.09	3965.89	4060.30	4164.29	4250.54	4326.32	4403.08	4480.41	4545.93	4622.36
<b>Generation by Fuel Type</b> (billion kilowatthours)													
<b>Electric Power Sector</b>													
Coal	1912.06	1949.68	1967.56	2033.52	2079.94	2139.28	2174.43	2193.15	2202.61	2212.03	2229.66	2244.33	2264.06
Petroleum	89.91	112.55	110.51	114.74	114.74	117.23	113.65	116.04	117.27	118.74	118.61	120.38	124.07
Natural Gas	608.15	555.91	627.94	617.23	620.99	643.07	707.57	765.57	821.69	877.94	929.37	972.80	1016.77
Nuclear	780.06	763.72	795.49	796.28	799.51	808.45	810.27	810.89	813.28	814.16	817.18	820.53	823.26
Pumped Storage/Other 3/	-6.09	-6.53	-8.78	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79
Renewable Sources 4/	316.27	323.38	331.09	369.82	383.94	386.35	388.25	390.80	392.90	393.09	393.88	395.48	398.31
Total Generation	3700.36	3698.72	3823.82	3922.80	3990.33	4085.61	4185.39	4267.66	4338.97	4407.17	4479.93	4544.75	4617.68
Sales to Customers	3650.07	3649.02	3758.73	3857.45	3924.85	4020.01	4119.73	4201.99	4273.30	4341.62	4414.65	4479.47	4552.40
Generation for Own Use	50.29	49.69	65.09	65.35	65.48	65.60	65.66	65.66	65.67	65.55	65.28	65.28	65.28
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.01	0.05	0.09	0.13	0.16	0.20	0.24	0.29	0.37
<b>End Use Sector 8/</b>													
Coal	21.07	20.60	20.60	20.60	20.60	20.60	20.60	20.60	20.60	20.60	20.60	20.60	20.60
Petroleum	5.32	5.58	6.19	6.19	7.40	7.34	8.01	8.59	8.93	9.98	9.05	9.15	9.26
Natural Gas	83.49	75.80	79.78	81.50	87.52	89.74	93.03	96.50	100.02	103.29	106.64	110.15	113.85
Other Gaseous Fuels	5.93	5.89	5.93	5.93	4.12	4.12	4.21	4.31	4.40	4.50	4.59	4.69	4.78
Renewable Sources 4/	34.45	35.39	37.51	39.12	39.60	40.23	41.18	42.07	42.64	43.14	43.67	43.98	44.56
Other	9.07	10.04	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.03
Total	159.33	153.29	160.05	163.38	169.27	172.06	177.06	182.10	186.62	190.53	194.58	198.60	203.07
Sales to Utilities	27.90	27.73	31.06	32.94	38.26	39.76	42.69	45.58	48.03	50.09	52.21	54.28	56.61
Generation for Own Use	131.44	125.57	128.99	130.44	131.00	132.30	134.37	136.52	138.58	140.44	142.37	144.32	146.47
Total Electricity Generation	3859.70	3852.01	3983.86	4086.17	4159.61	4257.72	4362.54	4449.88	4525.75	4597.90	4674.75	4743.63	4821.12
<b>End-Use Prices</b> (2003 cents per kilowatthour)													
Residential	8.6	8.7	8.6	8.6	8.3	8.0	7.8	7.9	7.8	7.8	7.9	8.0	8.0
Commercial	8.0	7.9	7.9	7.8	7.5	7.1	6.9	6.8	6.8	6.8	6.9	7.0	7.2
Industrial	5.0	5.1	5.4	5.3	5.1	4.9	4.8	4.8	4.7	4.7	4.7	4.8	4.9
Transportation	6.8	7.0	7.2	7.1	6.8	6.5	6.4	6.4	6.4	6.4	6.5	6.6	6.7
All Sectors Average	7.4	7.4	7.4	7.4	7.1	6.8	6.7	6.6	6.6	6.6	6.7	6.8	6.9
<b>Prices by Service Category</b> (2003 cents per kilowatthour)													
Generation	4.7	4.8	4.9	4.8	4.6	4.3	4.1	4.1	4.1	4.1	4.2	4.3	4.4

**Table 73. Electric Power Projections for Electricity Market Module Region United States**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transmission	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Distribution	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9
Fuel Consumption (quadrillion Btu) 9/													
Coal	20.15	20.30	20.36	21.03	21.49	22.09	22.49	22.70	22.81	22.92	23.12	23.27	23.46
Natural Gas	5.80	5.09	5.32	5.25	5.29	5.48	6.00	6.44	6.87	7.31	7.68	8.01	8.32
Oil	0.96	1.21	1.20	1.24	1.24	1.27	1.23	1.25	1.26	1.28	1.27	1.28	1.32
Total	26.91	26.61	26.88	27.52	28.03	28.84	29.72	30.39	30.93	31.51	32.06	32.56	33.10
Fuel Prices (dollars per million Btu)													
Coal	1.27	1.28	1.28	1.29	1.29	1.28	1.28	1.27	1.25	1.24	1.24	1.24	1.23
Natural Gas	3.69	5.46	5.98	5.92	5.27	4.83	4.50	4.39	4.27	4.31	4.41	4.54	4.70
Distillate Fuel	5.69	6.48	7.18	6.89	6.27	5.86	5.64	5.45	5.36	5.33	5.37	5.42	5.47
Residual Fuel	3.99	4.79	5.51	5.38	4.99	4.57	4.37	4.24	4.19	4.24	4.28	4.34	4.38
Biomass	1.10	1.08	1.05	1.27	1.36	1.39	1.42	1.46	1.58	1.55	1.55	1.57	1.61
Emissions 10/													
Total Carbon (million tons)	677.91	686.94	691.45	710.08	723.96	744.61	763.07	776.69	787.00	797.75	808.87	818.67	829.83
Carbon Dioxide (million tons)	2485.66	2518.79	2535.33	2603.61	2654.51	2730.24	2797.91	2847.85	2885.67	2925.09	2965.87	3001.79	3042.70
Sulfur Dioxide (million tons)	10.19	10.59	10.70	11.05	10.90	10.72	10.30	9.61	9.29	9.22	9.10	8.99	9.01
Nitrogen Oxide (million tons)	4.37	4.12	3.57	3.63	3.70	3.80	3.90	3.96	3.99	4.02	4.04	4.06	4.08
Mercury (tons)	50.08	49.70	50.38	51.99	52.30	52.91	53.01	54.06	54.08	54.68	54.74	54.74	55.10

**Table 73. Electric Power Projections for Electricity Market Module Region United States**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electricity Generating Capacity 1/ (gigawatts)												
Electric Power Sector												
Coal Steam	315.66	318.83	322.57	327.13	332.21	339.69	348.65	359.41	372.32	383.19	394.25	1.1%
Other Fossil Steam 2/	102.19	102.19	101.60	101.47	101.37	101.15	101.15	100.92	100.92	100.92	100.50	-1.2%
Combined Cycle	181.43	188.60	194.51	201.70	205.58	210.29	212.91	215.59	218.09	221.16	222.90	2.2%
Combustion Turbine/Diesel	146.90	151.97	157.38	163.69	168.99	173.03	175.05	178.79	181.57	188.90	193.71	1.8%
Nuclear Power	102.18	102.42	102.66	102.66	102.66	102.66	102.66	102.66	102.66	102.66	102.66	0.2%
Pumped Storage/Other 3/	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Renewable Sources 4/	96.50	97.24	97.60	97.94	98.53	99.29	99.88	100.34	100.94	102.03	103.13	0.5%
Distributed Generation 5/	1.13	1.49	1.82	2.17	2.55	3.05	3.49	4.20	5.08	6.04	6.93	N/A
Total Capacity	966.86	983.61	999.01	1017.63	1032.76	1050.02	1064.67	1082.77	1102.44	1125.76	1144.97	1.0%
Cumulative Planned Additions 6/												
Coal Steam	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	28.28	28.28	28.28	28.28	28.28	28.28	28.28	28.28	28.28	28.28	28.28	N/A
Combustion Turbine/Diesel	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	2.83	2.85	2.87	2.89	2.91	2.94	2.96	2.98	3.00	3.02	3.05	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Planned Additions	36.75	36.77	36.79	36.82	36.84	36.86	36.88	36.90	36.93	36.95	36.97	N/A
Cumulative Unplanned Additions 6/												
Coal Steam	6.54	9.72	13.46	18.02	23.10	30.57	39.54	50.30	63.21	74.07	85.14	N/A
Other Fossil Steam 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Combined Cycle	15.31	22.49	28.39	35.58	39.46	44.17	46.80	49.47	51.97	55.04	56.79	N/A
Combustion Turbine/Diesel	19.75	25.28	30.83	37.28	42.92	47.39	49.95	53.94	56.73	64.67	69.90	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage/Other 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	1.28	2.00	2.33	2.66	3.23	3.96	4.53	4.96	5.54	6.61	7.69	N/A
Distributed Generation 5/	1.13	1.49	1.82	2.17	2.55	3.05	3.49	4.20	5.08	6.04	6.93	N/A
Total Unplanned Additions	44.02	60.97	76.83	95.70	111.26	129.14	144.31	162.87	182.52	206.43	226.45	N/A
Cumulative Total Additions	80.77	97.74	113.63	132.52	148.09	166.00	181.19	199.78	219.45	243.38	263.42	N/A
Cumulative Retirements 7/												
Coal Steam	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98	N/A
Other Fossil Steam 3/	27.53	27.53	28.12	28.25	28.35	28.57	28.57	28.80	28.80	28.80	29.21	N/A
Combined Cycle	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	N/A
Combustion Turbine/Diesel	6.58	7.04	7.19	7.33	7.66	8.10	8.63	8.88	8.88	9.50	9.92	N/A
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Pumped Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 4/	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	N/A
Total	37.59	38.05	38.78	39.05	39.49	40.14	40.68	41.16	41.16	41.78	42.61	N/A
End Use Sector 8/												
Coal	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	0.0%
Petroleum	1.52	1.52	1.53	1.60	1.67	1.71	1.75	1.76	1.76	1.74	1.73	4.2%
Natural Gas	19.67	20.20	20.79	21.42	22.10	22.81	23.54	24.28	25.05	25.85	26.68	2.9%
Other Gaseous Fuels	1.58	1.59	1.60	1.60	1.61	1.62	1.63	1.63	1.64	1.65	1.65	-0.3%
Renewable Sources 4/	7.30	7.37	7.57	7.79	8.03	8.27	8.53	8.82	9.15	9.50	9.85	2.7%
Other	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.0%

**Table 73. Electric Power Projections for Electricity Market Module Region United States**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Total	34.91	35.52	36.32	37.24	38.25	39.24	40.29	41.32	42.44	43.57	44.76	2.3%
<b>Electricity Demand</b> (billion kilowatthours)												
Residential	1583.93	1609.32	1627.82	1649.43	1670.37	1695.94	1713.22	1736.52	1761.26	1790.18	1810.27	1.6%
Commercial/Other	1651.12	1691.24	1733.11	1773.77	1813.69	1854.31	1896.70	1941.62	1988.62	2037.88	2088.15	2.5%
Industrial	1165.99	1171.50	1186.55	1203.59	1216.85	1228.69	1238.09	1248.03	1260.21	1273.77	1286.11	1.3%
Transportation	28.84	29.41	29.97	30.59	31.21	31.82	32.45	33.10	33.74	34.42	35.10	2.0%
Total Sales	4429.89	4501.47	4577.45	4657.39	4732.11	4810.76	4880.47	4959.27	5043.83	5136.25	5219.63	1.9%
<b>Net Energy for Load (billion kilowatthours) 7/</b>												
Gross International Imports	40.19	39.22	33.00	31.44	30.55	31.47	30.84	30.44	31.22	23.94	25.16	-0.7%
Gross International Exports	18.93	18.33	17.74	17.18	16.64	16.12	15.61	15.12	14.74	14.38	14.03	-2.6%
Gross Interregional Electricity Imports	257.65	247.76	232.82	215.86	201.59	181.13	166.33	149.16	143.22	139.83	137.46	-3.9%
Gross Interregional Electricity Exports	261.23	251.26	236.15	218.97	204.55	183.79	168.82	151.44	145.37	141.91	139.49	-3.9%
Purchases from Combined Heat and Power 8/	59.01	61.40	64.16	67.25	70.71	74.42	78.10	81.17	84.32	87.43	90.57	5.5%
Electric Power Sector Generation for Customers	4616.88	4690.60	4773.61	4855.95	4931.96	5009.73	5079.59	5159.27	5244.17	5345.65	5428.88	1.8%
Total Net Energy for Load	4693.57	4769.39	4849.69	4934.34	5013.62	5096.84	5170.43	5253.48	5342.82	5440.56	5528.54	1.9%
<b>Generation by Fuel Type</b> (billion kilowatthours)												
<b>Electric Power Sector</b>												
Coal	2284.70	2310.29	2342.43	2377.50	2417.25	2473.19	2536.81	2612.63	2706.22	2786.70	2869.40	1.8%
Petroleum	124.18	123.79	122.36	125.61	130.84	131.08	133.05	132.91	131.70	132.49	135.26	0.8%
Natural Gas	1054.68	1097.52	1146.60	1188.01	1215.67	1233.72	1234.52	1235.59	1225.20	1240.67	1233.92	3.7%
Nuclear	825.94	828.18	830.09	830.17	830.17	830.17	830.17	830.17	830.17	830.17	830.17	0.4%
Pumped Storage/Other 3/	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	-8.79	1.4%
Renewable Sources 4/	401.44	404.88	406.20	408.71	412.08	415.61	419.09	422.01	424.93	429.68	434.19	1.3%
Total Generation	4682.16	4755.88	4838.89	4921.22	4997.24	5074.99	5144.85	5224.53	5309.43	5410.92	5494.14	1.8%
Sales to Customers	4616.88	4690.60	4773.61	4855.95	4931.96	5009.73	5079.59	5159.27	5244.17	5345.65	5428.88	1.8%
Generation for Own Use	65.28	65.28	65.28	65.28	65.28	65.26	65.26	65.26	65.26	65.26	65.26	1.2%
Distributed Generation 5/	0.50	0.65	0.80	0.95	1.12	1.34	1.53	1.84	2.22	2.65	3.04	N/A
<b>End Use Sector 8/</b>												
Coal	20.60	20.60	20.60	20.60	20.60	20.60	20.60	20.60	20.60	20.60	20.60	0.0%
Petroleum	9.67	10.10	10.39	10.76	11.33	12.04	12.81	12.85	12.83	12.71	12.68	3.8%
Natural Gas	117.48	121.45	125.79	130.43	135.45	140.70	146.13	151.55	157.20	163.05	169.13	3.7%
Other Gaseous Fuels	4.84	4.89	4.95	5.01	5.06	5.12	5.17	5.23	5.28	5.34	5.40	-0.4%
Renewable Sources 4/	45.20	45.50	46.43	47.44	48.56	49.60	50.66	51.69	52.84	53.94	55.00	2.0%
Other	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.03	0.0%
Total	207.82	212.58	218.19	224.27	231.04	238.09	245.40	251.95	258.79	265.67	272.84	2.7%
Sales to Utilities	59.01	61.40	64.16	67.25	70.71	74.42	78.10	81.17	84.32	87.43	90.57	5.5%
Generation for Own Use	148.82	151.19	154.03	157.02	160.33	163.67	167.30	170.78	174.47	178.24	182.27	1.7%
Total Electricity Generation	4890.47	4969.11	5057.87	5146.44	5229.39	5314.42	5391.79	5478.31	5570.44	5679.23	5770.02	1.9%
<b>End-Use Prices</b> (2003 cents per kilowatthour)												
Residential	8.1	8.0	8.1	8.1	8.2	8.2	8.3	8.3	8.2	8.2	8.3	-0.2%
Commercial	7.3	7.3	7.3	7.4	7.5	7.5	7.6	7.6	7.6	7.6	7.6	-0.2%
Industrial	5.0	5.0	5.1	5.1	5.2	5.3	5.3	5.3	5.3	5.3	5.4	0.2%
Transportation	6.7	6.7	6.7	6.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8	-0.2%
All Sectors Average	6.9	7.0	7.0	7.1	7.2	7.2	7.3	7.2	7.2	7.3	7.3	-0.1%
<b>Prices by Service Category</b> (2003 cents per kilowatthour)												
Generation	4.5	4.5	4.5	4.6	4.7	4.7	4.8	4.8	4.8	4.9	4.9	0.1%



**Table 73. Electric Power Projections for Electricity Market Module Region United States**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Transmission	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0%
Distribution	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	-0.7%
Fuel Consumption (quadrillion Btu) 9/												
Coal	23.65	23.87	24.16	24.46	24.81	25.28	25.80	26.43	27.20	27.86	28.54	1.6%
Natural Gas	8.55	8.80	9.13	9.37	9.54	9.64	9.63	9.63	9.55	9.65	9.60	2.9%
Oil	1.32	1.32	1.30	1.34	1.39	1.40	1.42	1.41	1.40	1.41	1.43	0.8%
Total	33.52	33.99	34.60	35.17	35.74	36.31	36.85	37.46	38.15	38.92	39.58	1.8%
Fuel Prices (dollars per million Btu)												
Coal	1.23	1.23	1.23	1.24	1.24	1.25	1.26	1.26	1.29	1.30	1.31	0.1%
Natural Gas	4.81	4.77	4.80	4.93	5.10	5.20	5.29	5.33	5.32	5.39	5.44	0.0%
Distillate Fuel	5.53	5.59	5.63	5.79	5.92	6.01	6.11	6.21	6.29	6.32	6.33	-0.1%
Residual Fuel	4.44	4.49	4.55	4.60	4.66	4.71	4.77	4.83	4.88	4.94	5.00	0.2%
Biomass	1.61	1.63	1.63	1.66	1.67	1.68	1.69	1.69	1.71	1.72	1.73	2.2%
Emissions 10/												
Total Carbon (million tons)	838.86	849.22	862.15	875.60	889.26	903.93	918.92	936.43	956.58	977.10	996.04	1.7%
Carbon Dioxide (million tons)	3075.81	3113.80	3161.22	3210.52	3260.62	3314.43	3369.37	3433.58	3507.44	3582.70	3652.15	1.7%
Sulfur Dioxide (million tons)	8.97	9.01	8.99	9.00	8.95	8.95	8.95	8.95	8.95	8.95	8.95	-0.8%
Nitrogen Oxide (million tons)	4.09	4.11	4.13	4.14	4.16	4.18	4.19	4.21	4.24	4.26	4.29	0.2%
Mercury (tons)	55.12	55.46	55.61	55.71	55.58	55.45	54.69	54.91	55.10	55.27	55.97	0.5%

**Table 73. Electric Power Projections for Electricity Market Module Region United States**

1/ Net summer capacity 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. Includes electric utilities, small power producers, and exempt wholesale generators.

2/ Includes oil-, gas-, and dual-fired capacity.

3/ Other includes methane, propane gas, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

5/ Primarily peak-load capacity fueled by natural gas.

6/ Cumulative additions after December 31, 2003.

7/ Generation to meet system load by source.

8/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

9/ Includes fuel consumption by electric utilities, small power producers, independent power producers, and exempt wholesale generators.

10/ Estimated emissions from utilities and nonutilities (excluding combined heat and power).

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2003 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2003 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.



**Table 74. Electric Generation by Electricity Market Module Region and Source (Billion Kwh)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Renewables 2/	12.31	12.98	11.42	11.97	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17
Total	116.13	118.14	118.02	118.89	120.17	124.20	127.98	130.69	132.16	133.88	135.90	137.40	139.16
Southeastern Electric Reliability Council/ Florida													
Coal	64.26	58.90	71.39	73.85	75.99	78.04	79.00	79.49	80.34	80.61	80.96	81.18	81.40
Petroleum	33.53	36.94	36.86	36.85	36.83	37.19	37.30	37.38	37.18	37.18	37.34	37.20	37.44
Natural Gas	59.59	64.11	39.09	41.04	43.61	46.90	51.65	56.39	65.21	70.74	76.52	82.57	88.21
Nuclear	33.70	30.98	31.76	31.86	31.89	31.93	32.13	32.13	32.13	32.13	32.13	32.13	32.13
Pumped Storage/Other 1/	0.31	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewables 2/	3.79	3.99	3.73	3.88	3.96	4.17	4.28	4.30	4.52	4.69	4.76	4.78	5.09
Total	195.18	195.16	182.83	187.48	192.29	198.23	204.36	209.68	219.38	225.35	231.72	237.86	244.26
Southeastern Electric Reliability Council/ excluding Florida													
Coal	436.56	443.39	444.51	458.41	471.46	484.67	492.91	499.20	501.31	503.64	505.93	506.33	508.00
Petroleum	7.04	12.22	15.06	15.76	15.57	15.73	16.13	16.32	16.66	16.74	17.11	17.84	18.40
Natural Gas	102.06	74.13	72.80	69.37	67.84	66.50	82.89	95.66	107.52	120.87	135.27	148.63	161.04
Nuclear	252.76	246.95	253.05	256.34	257.46	265.46	265.72	265.72	266.13	266.36	268.93	271.85	274.31
Pumped Storage/Other 1/	-2.75	-2.91	-3.63	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64
Renewables 2/	30.27	44.46	35.02	39.91	41.60	41.62	42.46	43.09	43.33	43.17	42.87	42.81	43.40
Total	825.94	818.24	816.82	836.15	850.29	870.34	896.48	916.35	931.32	947.15	966.47	983.82	1001.52
Southwest Power Pool													
Coal	143.65	146.26	142.36	148.76	153.48	157.12	158.14	154.48	154.55	154.77	154.90	154.93	154.90
Petroleum	0.60	1.25	1.25	1.35	1.38	1.42	1.44	1.43	1.47	1.49	1.54	1.55	1.59
Natural Gas	42.82	48.17	28.17	30.19	29.86	29.91	32.98	38.14	44.01	47.57	51.97	55.88	60.68
Nuclear	9.04	8.89	9.27	9.27	9.27	9.27	9.27	9.27	9.27	9.39	9.39	9.39	9.39
Pumped Storage/Other 1/	-0.13	0.11	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20
Renewables 2/	7.02	5.47	5.81	7.54	7.71	7.90	7.81	7.88	7.84	7.87	7.87	7.86	7.90
Total	203.00	210.15	186.67	196.90	201.49	205.41	209.44	210.99	216.94	220.88	225.46	229.40	234.26
Western Electricity Coordinating Council/ Northwest Power Pool Area													
Coal	76.90	81.81	81.29	83.11	84.79	86.62	87.78	87.78	87.78	87.66	87.60	87.65	87.65
Petroleum	0.58	0.61	0.60	0.61	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Natural Gas	14.71	19.09	22.95	22.18	23.35	26.04	27.75	31.17	34.92	33.86	36.02	36.95	36.96
Nuclear	9.05	7.61	8.16	8.24	8.31	8.38	8.45	8.61	8.68	8.74	8.81	8.88	8.94
Pumped Storage/Other 1/	0.32	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewables 2/	133.28	123.13	132.80	149.59	155.83	155.76	155.50	155.51	155.36	155.36	155.40	155.41	156.46
Total	234.83	232.61	245.79	263.73	272.91	277.43	280.12	283.70	287.37	286.26	288.47	289.54	290.65
Western Electricity Coordinating Council/ Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area													
Coal	111.85	114.03	111.22	113.75	116.72	120.74	121.68	121.66	121.63	121.66	121.71	121.71	128.58
Petroleum	0.12	0.14	1.75	1.79	2.11	2.84	1.85	2.09	2.97	2.92	3.28	3.48	3.81
Natural Gas	39.19	38.95	61.70	53.99	55.48	55.51	64.83	73.25	80.54	87.53	91.76	93.85	91.24
Nuclear	22.40	20.74	21.43	21.24	21.30	21.55	21.60	21.66	21.72	21.77	21.83	21.89	21.94
Pumped Storage/Other 1/	-0.05	0.10	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24
Renewables 2/	16.62	15.68	18.68	21.14	21.95	22.07	22.17	22.20	22.24	22.23	22.19	22.20	22.21
Total	190.14	189.64	214.55	211.66	217.32	222.47	231.90	240.62	248.86	255.88	260.53	262.88	267.55
Western Electricity Coordinating Council/ California													
Coal	33.50	33.71	32.06	32.75	33.35	33.97	34.37	34.37	34.36	34.36	40.67	50.16	57.00
Petroleum	1.80	1.92	1.61	1.63	1.62	1.63	1.62	1.62	1.62	1.58	1.65	1.74	1.80
Natural Gas	77.21	75.54	78.66	72.49	73.97	80.75	89.06	94.34	97.99	107.43	110.12	111.90	116.40
Nuclear	42.81	43.43	44.14	44.19	44.27	44.43	44.52	44.61	44.70	44.75	44.77	44.79	44.81
Pumped Storage/Other 1/	-0.24	-0.90	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88
Renewables 2/	49.80	53.27	50.28	54.80	56.55	56.56	56.57	56.59	57.23	57.25	57.97	58.90	59.20
Total	204.88	206.97	205.86	204.98	208.87	216.47	225.26	230.65	235.02	244.50	254.29	266.60	278.32

**Table 74. Electric Generation by Electricity Market Module Region and Source (Billion Kwh)**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
<b>East Central Area Reliability Coordination Agreement</b>												
Coal	587.26	588.50	590.16	590.67	591.49	591.87	591.75	591.31	592.40	593.60	594.93	0.8%
Petroleum	4.45	4.47	4.51	4.51	4.77	4.78	4.78	4.77	4.77	4.78	4.79	-0.1%
Natural Gas	66.99	70.90	78.88	83.88	89.37	90.86	94.68	98.04	104.86	111.76	117.49	9.5%
Nuclear	58.73	58.73	58.73	58.73	58.73	58.73	58.73	58.73	58.73	58.73	58.73	0.8%
Pumped Storage/Other 1/	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-1.79	-0.4%
Renewables 2/	10.46	10.44	10.26	10.56	10.82	11.12	11.14	11.05	10.03	10.36	9.95	2.1%
Total	726.11	731.24	740.75	746.57	753.39	755.58	759.29	762.11	769.00	777.43	784.10	1.4%
<b>Electric Reliability Council of Texas</b>												
Coal	111.67	111.82	111.97	111.99	112.03	112.08	112.70	116.64	126.90	135.85	142.41	1.1%
Petroleum	0.97	0.97	0.98	1.00	1.00	1.00	1.02	1.05	1.15	1.23	1.29	-2.3%
Natural Gas	215.20	220.74	226.02	231.67	236.32	241.35	245.24	246.45	241.70	239.55	238.23	3.2%
Nuclear	39.95	40.03	40.12	40.21	40.21	40.21	40.21	40.21	40.21	40.21	40.21	0.8%
Pumped Storage/Other 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewables 2/	8.98	8.83	8.92	8.98	9.01	9.19	9.68	9.90	10.20	10.45	11.01	6.1%
Total	377.09	382.75	388.38	394.25	399.01	404.29	409.33	414.77	420.72	427.88	433.79	2.2%
<b>Mid-Atlantic Area Council</b>												
Coal	144.16	144.54	144.87	145.10	146.08	147.89	153.49	159.67	166.63	173.16	179.56	1.8%
Petroleum	8.81	8.75	9.24	9.57	9.88	9.97	10.10	10.05	10.11	10.17	10.28	0.1%
Natural Gas	56.21	58.03	62.13	65.73	67.86	74.94	74.10	71.50	71.42	72.79	72.33	6.1%
Nuclear	111.43	111.43	113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25	0.3%
Pumped Storage/Other 1/	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	-0.82	3.9%
Renewables 2/	14.30	14.32	14.19	14.28	14.29	14.31	14.30	14.30	14.27	14.24	13.99	1.8%
Total	334.19	336.40	343.08	347.39	350.90	359.96	364.90	368.50	375.50	383.51	389.39	1.8%
<b>Mid-America Interconnected Network</b>												
Coal	206.92	207.10	208.25	208.77	209.46	209.09	208.23	207.76	207.49	207.50	208.76	0.8%
Petroleum	2.20	2.20	2.21	2.21	2.22	2.22	2.21	2.20	2.19	2.18	2.20	2.0%
Natural Gas	27.32	28.70	30.29	30.83	32.08	32.90	33.38	33.26	34.31	34.90	35.97	7.7%
Nuclear	122.38	124.45	124.45	124.45	124.45	124.45	124.45	124.45	124.45	124.45	124.45	0.2%
Pumped Storage/Other 1/	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.2%
Renewables 2/	5.63	5.64	5.64	5.71	5.60	5.62	5.66	5.88	6.13	6.51	7.03	2.7%
Total	364.36	368.01	370.79	371.95	373.79	374.29	373.96	373.60	374.70	375.73	378.67	1.0%
<b>Mid-Continent Area Power Pool</b>												
Coal	149.29	152.33	152.46	152.59	152.62	152.63	155.18	157.36	159.16	161.06	163.88	1.4%
Petroleum	1.31	1.32	1.35	1.35	1.35	1.36	1.38	1.41	1.43	1.45	2.12	3.3%
Natural Gas	5.00	5.33	6.31	6.58	6.95	7.18	6.83	7.69	7.78	7.98	7.05	4.5%
Nuclear	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	24.22	0.0%
Pumped Storage/Other 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewables 2/	19.69	19.69	19.69	19.69	19.68	19.68	19.67	19.80	19.96	20.02	20.02	2.1%
Total	199.55	202.95	204.10	204.51	204.91	205.18	207.41	210.61	212.69	214.89	217.47	1.4%
<b>Northeast Power Coordinating Council/ New York</b>												
Coal	34.04	33.98	34.01	34.08	34.09	34.11	36.61	39.65	43.27	46.79	49.37	3.5%
Petroleum	18.58	18.56	18.53	22.47	23.84	23.75	23.83	24.03	24.13	24.16	24.15	1.2%
Natural Gas	45.39	46.61	48.62	46.58	47.32	49.67	49.39	49.64	49.65	49.57	49.33	2.9%
Nuclear	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	41.49	0.1%
Pumped Storage/Other 1/	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-0.57	-2.1%
Renewables 2/	29.93	29.92	29.91	29.91	29.91	29.92	29.91	29.91	29.90	29.89	29.88	0.5%
Total	168.87	169.99	171.98	173.97	176.09	178.36	180.67	184.15	187.89	191.34	193.68	1.7%
<b>Northeast Power Coordinating Council/ New England</b>												
Coal	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	25.72	1.3%
Petroleum	14.03	13.71	13.37	13.98	14.25	13.69	13.78	13.79	13.45	13.53	13.14	0.3%
Natural Gas	56.85	57.63	60.85	63.32	65.44	66.13	68.05	69.82	72.02	75.82	74.61	2.9%
Nuclear	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	0.1%
Pumped Storage/Other 1/	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-0.52	-1.3%

**Table 74. Electric Generation by Electricity Market Module Region and Source (Billion Kwh)**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Renewables 2/	12.59	14.79	14.89	14.98	15.11	15.27	15.43	15.55	15.72	15.72	15.72	0.9%
Total	139.95	142.63	145.61	148.79	151.32	151.61	153.80	155.71	157.75	161.64	164.15	1.5%
Southeastern Electric Reliability Council/ Florida												
Coal	81.43	83.58	85.74	88.65	88.65	88.86	97.94	110.32	120.24	129.07	137.78	3.9%
Petroleum	37.50	37.46	36.24	33.84	33.94	33.81	34.53	33.75	33.72	33.53	33.30	-0.5%
Natural Gas	93.83	98.71	104.84	109.98	117.03	122.99	120.32	118.60	117.32	118.85	119.80	2.9%
Nuclear	32.13	32.13	32.13	32.13	32.13	32.13	32.13	32.13	32.13	32.13	32.13	0.2%
Pumped Storage/Other 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewables 2/	5.47	5.54	5.94	6.55	7.13	7.80	8.16	8.43	8.56	9.03	9.78	4.2%
Total	250.36	257.44	264.90	271.17	278.90	285.63	293.12	303.28	312.03	322.67	332.88	2.5%
Southeastern Electric Reliability Council/ excludin												
Coal	509.00	511.62	515.97	533.46	546.21	574.64	598.18	624.90	646.53	665.25	680.48	2.0%
Petroleum	18.88	18.98	19.45	19.85	22.03	22.52	22.97	22.92	21.49	21.62	23.34	3.0%
Natural Gas	170.99	186.17	196.85	201.43	207.58	204.45	202.24	203.15	202.17	206.20	206.22	4.8%
Nuclear	275.07	275.07	275.07	275.07	275.07	275.07	275.07	275.07	275.07	275.07	275.07	0.5%
Pumped Storage/Other 1/	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	-3.64	1.0%
Renewables 2/	44.07	44.24	44.24	44.31	44.41	44.03	44.20	44.15	44.38	43.83	43.34	-0.1%
Total	1014.38	1032.45	1047.94	1070.48	1091.66	1117.08	1139.02	1166.55	1186.00	1208.34	1224.83	1.9%
Southwest Power Pool												
Coal	154.98	158.93	159.30	163.33	165.81	169.51	169.75	169.59	176.34	184.35	189.55	1.2%
Petroleum	1.61	1.62	1.62	1.66	1.92	1.92	1.97	2.00	1.76	1.84	2.11	2.4%
Natural Gas	64.22	64.70	68.46	71.34	73.39	75.15	77.61	80.32	78.99	82.10	81.37	2.4%
Nuclear	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	0.2%
Pumped Storage/Other 1/	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	N/A
Renewables 2/	7.92	7.86	7.60	7.53	7.52	7.59	7.42	7.68	7.87	8.21	7.87	1.7%
Total	237.92	242.30	246.17	253.05	257.82	263.35	265.94	268.78	274.15	285.68	290.08	1.5%
Western Electricity Coordinating Council/ Northwe												
Coal	87.76	87.84	87.77	87.90	87.92	87.92	87.92	88.04	96.51	96.51	104.28	1.1%
Petroleum	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.72	0.72	0.80	1.3%
Natural Gas	38.66	44.86	52.58	60.01	66.45	69.92	71.37	73.62	71.34	72.11	69.59	6.1%
Nuclear	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	0.7%
Pumped Storage/Other 1/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewables 2/	157.71	158.77	160.04	161.16	163.06	164.61	166.52	168.34	169.11	169.66	171.02	1.5%
Total	293.71	301.05	309.99	318.67	327.05	332.11	335.49	339.77	346.89	348.31	355.08	1.9%
Western Electricity Coordinating Council/ Rocky M Area and Arizona-New Mexico-Southern Nevada												
Coal	135.99	144.17	152.80	161.82	170.51	178.71	186.18	194.70	204.01	213.63	220.95	3.1%
Petroleum	3.88	3.53	2.31	2.40	2.49	2.57	2.64	2.73	2.82	2.92	2.99	15.1%
Natural Gas	86.64	84.20	84.93	81.19	75.07	71.29	68.92	64.82	61.11	57.71	56.19	1.7%
Nuclear	22.00	22.06	22.06	22.06	22.06	22.06	22.06	22.06	22.06	22.06	22.06	0.3%
Pumped Storage/Other 1/	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	N/A
Renewables 2/	22.22	22.29	22.24	22.31	22.18	22.19	22.20	22.13	22.14	22.87	23.43	1.8%
Total	270.49	276.01	284.10	289.54	292.06	296.60	301.81	306.28	312.00	319.08	325.55	2.5%
Western Electricity Coordinating Council/ Californ												
Coal	60.36	64.03	77.27	77.27	90.53	104.04	117.01	130.82	144.86	158.05	171.46	7.7%
Petroleum	1.85	1.90	2.03	2.03	2.19	2.31	2.46	2.60	2.74	2.87	3.00	2.1%
Natural Gas	120.70	124.14	118.89	128.37	123.56	119.47	114.83	110.96	104.64	103.26	97.48	1.2%
Nuclear	44.83	44.86	44.86	44.86	44.86	44.86	44.86	44.86	44.86	44.86	44.86	0.1%
Pumped Storage/Other 1/	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.88	-0.1%
Renewables 2/	59.50	59.52	59.55	59.57	60.14	60.99	61.43	61.46	63.15	65.31	67.48	1.1%
Total	286.36	293.57	301.71	311.22	320.39	330.79	339.73	349.89	359.46	373.62	383.59	2.8%

**Table 74. Electric Generation by Electricity Market Module Region and Source (Billion Kwh)**

1/ Other includes methane, propane and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

2/ Renewables include conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

Sources: 2003 utility generation: Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." Other 2003 and projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 75. Electric Generation Capacity by Electricity Market Module Region and Source (Gigawatts)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>East Central Area Reliability Coordination Agreement</b>													
Coal Steam	84.31	84.27	84.27	84.26	82.93	82.93	82.93	82.93	82.93	82.93	82.57	82.57	82.57
Other Fossil Steam 1/	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	0.95	0.16	0.16
Combined Cycle	5.77	10.54	11.64	11.64	12.36	12.36	12.36	12.36	12.36	12.36	12.19	12.19	12.19
Combustion Turbine/ Diesel	18.70	19.24	19.93	20.17	20.17	20.15	20.12	20.12	20.12	20.12	19.82	19.81	20.03
Nuclear Power	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69
Pumped Storage/Other 2/	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	1.62	1.74	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Total	125.36	130.76	132.55	132.78	132.17	132.14	132.11	132.11	132.11	132.11	128.45	127.65	127.87
<b>Electric Reliability Council of Texas</b>													
Coal Steam	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16
Other Fossil Steam 1/	29.91	29.52	29.28	28.75	27.90	25.63	24.52	23.36	23.36	23.26	23.26	23.16	23.16
Combined Cycle	17.08	21.77	23.15	23.15	23.66	23.66	23.85	24.24	24.62	24.76	25.31	26.10	27.05
Combustion Turbine/ Diesel	5.27	4.84	4.89	4.88	4.88	4.52	5.11	6.82	8.76	9.63	10.42	10.63	10.68
Nuclear Power	4.74	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.94	4.94	4.94	4.94	4.94
Pumped Storage/Other 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	1.84	2.07	2.16	2.33	2.49	2.65	2.81	2.98	2.98	2.98	2.98	2.98	2.98
Total	74.00	78.14	79.41	79.03	78.89	76.52	76.44	77.62	80.19	81.18	82.59	83.56	84.64
<b>Mid-Atlantic Area Council</b>													
Coal Steam	20.20	20.01	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53
Other Fossil Steam 1/	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	7.12	7.12	7.12
Combined Cycle	8.33	10.00	12.13	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31
Combustion Turbine/ Diesel	10.35	11.16	11.16	11.31	11.31	11.31	11.31	11.31	11.31	11.31	10.94	10.94	11.54
Nuclear Power	13.05	13.12	13.26	13.26	13.40	13.40	13.40	13.42	13.42	13.42	13.42	13.42	13.42
Pumped Storage/Other 2/	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	1.89	1.92	1.92	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98
Total	63.75	66.14	68.94	70.34	70.47	70.47	70.47	70.49	70.49	70.49	68.85	68.89	69.53
<b>Mid-America Interconnected Network</b>													
Coal Steam	29.62	29.54	29.52	29.58	29.57	29.50	29.50	29.50	29.50	29.50	29.40	29.40	29.40
Other Fossil Steam 1/	3.97	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	1.51	0.98	0.98
Combined Cycle	3.01	3.01	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15
Combustion Turbine/ Diesel	15.81	16.57	16.63	16.62	16.62	16.62	16.62	16.62	16.62	16.62	16.27	16.27	16.51
Nuclear Power	14.42	14.43	14.43	14.43	14.48	14.48	14.59	14.59	14.59	14.67	14.67	14.67	14.67
Pumped Storage/Other 2/	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	0.98	1.04	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Total	68.24	68.66	69.90	69.95	69.98	69.92	70.04	70.04	70.04	70.12	67.54	67.01	67.30
<b>Mid-Continent Area Power Pool</b>													
Coal Steam	18.65	18.65	18.65	18.67	18.67	19.46	19.46	19.46	19.46	19.46	19.45	19.45	19.45
Other Fossil Steam 1/	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.52	0.52	0.52
Combined Cycle	0.61	0.69	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Combustion Turbine/ Diesel	6.34	7.45	7.69	7.70	7.70	7.70	7.70	7.70	7.92	8.21	8.70	9.09	9.52
Nuclear Power	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12
Pumped Storage/Other 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	4.02	4.26	4.29	4.79	4.81	4.83	4.84	4.86	4.88	4.88	4.88	4.88	4.88
Total	33.31	34.74	35.25	35.78	35.79	36.60	36.62	36.64	36.89	37.19	37.65	38.04	38.50
<b>Northeast Power Coordinating Council/ New York</b>													
Coal Steam	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.83	3.83	3.83
Other Fossil Steam 1/	12.58	12.58	12.58	12.58	12.58	12.58	12.58	12.58	12.58	12.58	10.75	10.75	10.75



**Table 75. Electric Generation Capacity by Electricity Market Module Region and Source (Gigawatts)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Combined Cycle	3.86	5.12	5.12	5.89	5.89	5.89	5.89	5.89	5.89	5.89	5.89	5.89	6.04
Combustion Turbine/ Diesel	4.64	4.72	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.94	4.94
Nuclear Power	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
Pumped Storage/Other 2/	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	4.80	4.87	4.94	5.16	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31
Total	36.10	37.51	37.63	38.62	38.76	38.76	38.76	38.76	38.76	38.76	36.88	37.05	37.21
Northeast Power Coordinating Council/ New England													
Coal Steam	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.86	2.86	2.86
Other Fossil Steam 1/	7.41	7.41	7.08	7.08	7.08	7.08	7.08	7.08	7.08	7.08	6.09	5.08	4.05
Combined Cycle	7.58	9.97	9.97	9.97	10.46	10.46	10.46	10.46	10.32	10.32	10.32	10.32	10.32
Combustion Turbine/ Diesel	2.31	2.34	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
Nuclear Power	4.34	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
Pumped Storage/Other 2/	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	2.76	2.78	2.79	2.80	2.80	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79
Total	28.93	31.38	31.53	31.54	32.04	32.04	32.04	32.04	31.90	31.90	30.88	29.87	28.84
Southeastern Electric Reliability Council/ Florida													
Coal Steam	11.46	11.46	10.96	10.96	10.96	10.96	10.96	10.96	10.96	10.96	10.96	10.96	10.96
Other Fossil Steam 1/	12.00	11.31	11.31	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.06	10.76	10.76
Combined Cycle	7.05	9.16	10.74	11.44	11.44	11.44	11.44	12.46	13.99	13.99	14.10	14.87	15.91
Combustion Turbine/ Diesel	10.09	10.09	10.06	10.06	9.92	10.03	10.91	11.11	10.97	12.29	13.38	13.99	14.05
Nuclear Power	3.90	3.90	3.90	3.90	3.90	3.90	3.92	3.92	3.92	3.92	3.92	3.92	3.92
Pumped Storage/Other 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	0.55	0.55	0.55	0.55	0.55	0.57	0.57	0.57	0.62	0.62	0.62	0.62	0.69
Total	45.04	46.47	47.52	48.02	47.89	48.01	48.92	50.13	51.57	52.89	54.04	55.13	56.29
Southeastern Electric Reliability Council/ excluding Florida													
Coal Steam	71.41	71.16	71.19	71.19	71.19	71.19	71.19	71.19	71.19	71.19	71.15	71.15	71.29
Other Fossil Steam 1/	18.61	18.87	18.84	18.84	18.82	18.82	18.77	18.77	18.73	18.73	17.87	17.87	17.56
Combined Cycle	22.51	31.40	35.31	35.96	38.59	38.59	38.59	38.59	38.59	38.59	38.59	38.59	39.16
Combustion Turbine/ Diesel	29.30	31.11	31.85	31.85	31.76	31.64	31.64	31.38	31.38	31.38	30.74	30.74	32.45
Nuclear Power	32.21	32.30	32.43	32.78	32.90	33.02	33.05	33.08	33.13	33.15	33.52	33.87	34.23
Pumped Storage/Other 2/	7.04	7.11	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	12.29	12.29	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.49
Total	193.37	204.24	209.13	210.13	212.77	212.77	212.75	212.51	212.52	212.54	211.38	211.74	214.36
Southwest Power Pool													
Coal Steam	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.11	21.11	21.11	21.11	21.11	21.11
Other Fossil Steam 1/	12.79	12.71	12.66	11.30	10.69	10.38	10.35	10.35	10.35	10.31	8.35	8.08	8.08
Combined Cycle	6.78	10.58	11.21	11.21	11.21	11.21	11.21	11.21	11.21	11.21	11.21	11.12	11.12
Combustion Turbine/ Diesel	6.50	6.86	7.50	7.45	7.33	7.33	7.33	7.33	7.33	7.33	7.25	7.25	7.25
Nuclear Power	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.18	1.18	1.18	1.18
Pumped Storage/Other 2/	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	2.72	2.90	2.90	3.15	3.16	3.16	3.16	3.16	3.16	3.16	3.17	3.17	3.17
Total	52.05	56.32	57.54	56.38	55.65	55.34	55.31	54.83	54.83	54.81	52.77	52.40	52.40
Western Electricity Coordinating Council/ Northwest Power Pool Area													
Coal Steam	11.49	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57
Other Fossil Steam 1/	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.24	0.02	0.02
Combined Cycle	3.23	3.47	4.21	4.36	4.96	4.96	4.96	4.96	4.96	4.96	4.96	4.96	4.96
Combustion Turbine/ Diesel	2.44	2.44	2.49	2.63	2.63	2.63	2.63	2.63	2.63	2.63	1.72	1.72	1.72
Nuclear Power	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.12	1.12	1.12	1.12	1.12	1.12

**Table 75. Electric Generation Capacity by Electricity Market Module Region and Source (Gigawatts)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Pumped Storage/Other 2/	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	36.09	36.16	36.17	36.26	36.28	36.28	36.29	36.29	36.26	36.27	36.27	36.28	36.41
Total	55.40	55.79	56.59	56.97	57.59	57.59	57.60	57.61	57.58	57.59	56.21	55.99	56.12
Western Electricity Coordinating Council/ Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area													
Coal Steam	15.76	15.67	15.67	15.67	16.07	16.07	16.07	16.07	16.07	16.07	16.07	16.07	17.00
Other Fossil Steam 1/	2.78	2.67	2.67	2.67	2.63	2.63	2.63	2.63	2.63	2.63	2.13	2.13	2.13
Combined Cycle	7.00	12.96	14.84	15.60	15.88	15.88	16.41	16.41	16.41	16.41	16.41	16.41	16.41
Combustion Turbine/ Diesel	5.53	6.10	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16
Nuclear Power	2.78	2.78	2.78	2.73	2.73	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Pumped Storage/Other 2/	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	6.14	6.66	6.68	6.88	6.91	6.91	6.91	6.92	6.92	6.93	6.93	6.94	6.94
Total	40.77	47.61	49.57	50.50	51.16	51.18	51.71	51.72	51.72	51.73	51.23	51.24	52.17
Western Electricity Coordinating Council/ California													
Coal Steam	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	5.31	6.60	7.53
Other Fossil Steam 1/	19.10	17.52	17.52	17.52	17.52	17.52	17.52	17.52	17.52	17.52	17.05	17.05	17.05
Combined Cycle	6.66	9.55	9.79	12.08	12.08	12.62	13.14	13.14	13.14	13.14	13.14	13.14	13.80
Combustion Turbine/ Diesel	6.40	6.97	7.00	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98
Nuclear Power	5.37	5.37	5.37	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36
Pumped Storage/Other 2/	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewable Sources 3/	14.74	14.97	14.94	15.05	15.08	15.08	15.09	15.09	15.18	15.18	15.28	15.44	15.47
Total	60.42	62.52	62.76	65.12	65.16	65.70	66.23	66.24	66.32	66.33	66.82	68.26	69.88

**Table 75. Electric Generation Capacity by Electricity Market Module Region and Source (Gigawatts)**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
<b>East Central Area Reliability Coordination Agreement</b>												
Coal Steam	82.57	82.57	82.57	82.57	82.57	82.57	82.57	82.57	82.57	82.57	82.57	-0.1%
Other Fossil Steam 1/	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	-13.3%
Combined Cycle	12.19	12.19	12.19	12.19	12.51	13.16	14.26	15.80	17.23	18.59	19.34	2.8%
Combustion Turbine/ Diesel	21.35	22.86	24.41	26.19	27.50	28.75	29.34	29.80	30.31	31.21	32.43	2.4%
Nuclear Power	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	0.0%
Pumped Storage/Other 2/	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	1.75	1.75	1.75	1.75	1.81	1.91	1.94	1.94	1.99	2.05	2.05	0.8%
Total	129.19	130.70	132.25	134.03	135.72	137.72	139.45	141.45	143.43	145.76	147.72	0.6%
<b>Electric Reliability Council of Texas</b>												
Coal Steam	15.16	15.16	15.16	15.16	15.16	15.16	15.25	15.78	17.20	18.39	19.28	1.1%
Other Fossil Steam 1/	23.00	23.00	23.00	23.00	23.00	22.78	22.78	22.55	22.55	22.55	22.14	-1.3%
Combined Cycle	28.00	29.31	30.30	31.38	31.86	32.91	33.93	34.21	34.21	34.50	34.78	2.2%
Combustion Turbine/ Diesel	10.68	10.68	10.68	10.68	11.16	11.25	11.30	11.69	11.76	11.85	11.88	4.2%
Nuclear Power	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	0.4%
Pumped Storage/Other 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	2.99	2.99	3.04	3.04	3.05	3.10	3.19	3.20	3.20	3.29	3.39	2.3%
Total	85.75	87.13	88.24	89.39	90.42	91.46	92.78	93.82	95.39	97.15	98.10	1.0%
<b>Mid-Atlantic Area Council</b>												
Coal Steam	20.53	20.53	20.53	20.53	20.63	20.87	21.72	22.63	23.65	24.61	25.53	1.1%
Other Fossil Steam 1/	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	-0.7%
Combined Cycle	13.31	13.31	13.96	14.48	14.62	15.22	15.22	15.22	15.22	15.42	15.42	2.0%
Combustion Turbine/ Diesel	12.06	12.55	12.69	13.02	13.54	13.67	13.67	13.75	13.75	13.75	13.82	1.0%
Nuclear Power	13.42	13.42	13.66	13.66	13.66	13.66	13.66	13.66	13.66	13.66	13.66	0.2%
Pumped Storage/Other 2/	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	0.2%
Total	70.18	70.81	71.99	72.99	73.90	75.02	76.01	77.17	78.37	79.72	80.88	0.9%
<b>Mid-America Interconnected Network</b>												
Coal Steam	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	0.0%
Other Fossil Steam 1/	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	-5.8%
Combined Cycle	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.31	4.47	4.47	4.47	1.8%
Combustion Turbine/ Diesel	16.88	17.59	18.26	19.07	19.87	20.79	21.54	22.24	22.88	23.82	24.64	1.8%
Nuclear Power	14.67	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	0.2%
Pumped Storage/Other 2/	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	1.10	1.10	1.10	1.10	1.10	1.10	1.15	1.21	1.29	1.38	1.45	1.5%
Total	67.71	68.70	69.42	70.28	71.12	72.09	72.94	73.92	74.96	76.17	77.21	0.5%
<b>Mid-Continent Area Power Pool</b>												
Coal Steam	20.37	20.79	20.80	20.80	20.80	20.80	21.15	21.46	21.72	21.98	22.35	0.8%
Other Fossil Steam 1/	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	-0.3%
Combined Cycle	0.93	0.93	0.93	0.93	0.93	0.93	0.93	1.12	1.30	1.30	1.30	2.9%
Combustion Turbine/ Diesel	8.71	9.68	10.54	11.04	11.19	10.97	10.97	11.62	12.30	12.67	12.85	2.5%
Nuclear Power	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	0.0%
Pumped Storage/Other 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.92	4.96	4.98	4.98	0.7%
Total	38.65	40.06	40.96	41.50	41.67	41.49	41.86	43.06	44.27	44.95	45.53	1.2%
<b>Northeast Power Coordinating Council/ New York</b>												
Coal Steam	3.83	3.83	3.83	3.83	3.83	3.83	4.18	4.60	5.11	5.61	5.98	2.0%
Other Fossil Steam 1/	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75	-0.7%

**Table 75. Electric Generation Capacity by Electricity Market Module Region and Source (Gigawatts)**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Combined Cycle	6.44	6.63	6.95	7.33	7.63	8.02	8.02	8.02	8.02	8.02	8.06	2.1%
Combustion Turbine/ Diesel	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.65	4.71	0.0%
Nuclear Power	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	0.0%
Pumped Storage/Other 2/	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Renewable Sources 3/	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	0.4%
Total	37.30	37.49	37.81	38.19	38.49	38.88	39.24	39.67	40.19	40.73	41.21	0.4%
Northeast Power Coordinating Council/ New Engl												
Coal Steam	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	3.42	0.8%
Other Fossil Steam 1/	4.05	4.05	4.05	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	-2.8%
Combined Cycle	10.59	10.78	11.26	11.84	12.31	12.82	13.31	13.69	14.22	14.84	14.84	1.8%
Combustion Turbine/ Diesel	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.97	2.97	2.99	3.01	1.2%
Nuclear Power	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	0.0%
Pumped Storage/Other 2/	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	2.88	3.47	3.50	3.53	3.56	3.61	3.66	3.69	3.74	3.74	3.74	1.4%
Total	29.20	30.00	30.53	31.08	31.62	32.19	32.75	33.35	33.95	34.63	35.23	0.5%
Southeastern Electric Reliability Council/ Florida												
Coal Steam	10.96	11.24	11.52	11.92	11.92	11.92	13.17	14.87	16.26	17.46	18.68	2.2%
Other Fossil Steam 1/	10.76	10.76	10.26	10.26	10.26	10.26	10.26	10.26	10.26	10.26	10.26	-0.4%
Combined Cycle	16.92	17.82	18.62	19.81	20.68	21.82	21.82	21.82	21.82	22.16	22.53	4.2%
Combustion Turbine/ Diesel	14.05	14.05	14.04	14.00	14.19	14.24	14.22	13.97	13.97	13.62	13.54	1.3%
Nuclear Power	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	0.0%
Pumped Storage/Other 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	0.75	0.75	0.83	0.94	1.01	1.15	1.15	1.15	1.15	1.33	1.51	4.7%
Total	57.36	58.57	59.21	60.88	62.02	63.38	64.61	66.08	67.50	68.90	70.63	1.9%
Southeastern Electric Reliability Council/ excludin												
Coal Steam	71.29	71.61	72.10	74.47	76.16	79.96	83.27	87.06	90.15	92.72	94.93	1.3%
Other Fossil Steam 1/	17.56	17.56	17.48	17.48	17.37	17.37	17.37	17.37	17.37	17.37	17.37	-0.4%
Combined Cycle	40.77	42.40	42.90	42.90	43.09	43.09	43.09	43.09	43.29	43.29	43.61	1.5%
Combustion Turbine/ Diesel	33.55	34.96	37.17	38.18	39.52	39.52	39.52	39.52	40.21	42.44	43.96	1.6%
Nuclear Power	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	0.3%
Pumped Storage/Other 2/	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	12.68	12.68	12.68	12.68	12.74	12.77	12.77	12.77	12.86	12.91	13.03	0.3%
Total	217.38	220.73	223.86	227.24	230.41	234.24	237.55	241.34	245.40	250.26	254.42	1.0%
Southwest Power Pool												
Coal Steam	21.11	21.64	21.64	22.18	22.51	23.00	23.00	23.06	23.97	25.04	25.70	0.8%
Other Fossil Steam 1/	8.08	8.08	8.08	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	-2.1%
Combined Cycle	11.62	11.94	12.77	12.77	12.77	12.98	12.98	12.98	12.98	13.23	13.23	1.0%
Combustion Turbine/ Diesel	7.31	7.31	7.28	9.19	9.53	10.13	9.61	10.13	10.13	11.71	12.03	2.6%
Nuclear Power	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	0.1%
Pumped Storage/Other 2/	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	3.18	3.18	3.18	3.18	3.19	3.23	3.24	3.24	3.24	3.31	3.31	0.6%
Total	52.97	53.84	54.64	57.03	57.71	59.04	58.53	59.12	60.03	62.99	63.97	0.6%
Western Electricity Coordinating Council/ Northwe												
Coal Steam	11.59	11.59	11.59	11.59	11.59	11.59	11.59	11.61	12.76	12.76	13.81	0.8%
Other Fossil Steam 1/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-16.1%
Combined Cycle	5.17	6.52	7.86	9.32	10.41	10.58	10.58	10.72	10.72	10.72	10.72	5.3%
Combustion Turbine/ Diesel	1.72	1.72	1.72	1.72	1.91	3.13	4.30	5.33	5.52	6.93	7.10	5.0%
Nuclear Power	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	0.0%

**Table 75. Electric Generation Capacity by Electricity Market Module Region and Source (Gigawatts)**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Pumped Storage/Other 2/	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	36.56	36.70	36.87	37.06	37.36	37.58	37.88	38.18	38.26	38.31	38.55	0.3%
Total	56.50	58.00	59.54	61.21	62.84	64.50	66.03	67.70	69.32	71.00	72.68	1.2%
Western Electricity Coordinating Council/ Rocky M Area and Arizona-New Mexico-Southern Nevada												
Coal Steam	18.01	19.13	20.29	21.53	22.69	23.80	24.82	25.96	27.23	28.53	29.53	2.9%
Other Fossil Steam 1/	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	-1.0%
Combined Cycle	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	1.1%
Combustion Turbine/ Diesel	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.54	0.3%
Nuclear Power	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	0.0%
Pumped Storage/Other 2/	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	6.94	6.95	6.95	6.96	6.96	6.96	6.97	6.97	6.97	7.10	7.17	0.3%
Total	53.18	54.31	55.47	56.71	57.87	59.05	60.12	61.32	62.65	64.15	65.67	1.5%
Western Electricity Coordinating Council/ Californ												
Coal Steam	7.98	8.48	10.28	10.28	12.08	13.91	15.68	17.55	19.46	21.25	23.07	7.8%
Other Fossil Steam 1/	17.05	17.05	17.05	17.05	17.05	17.05	17.05	17.05	17.05	17.05	17.05	-0.1%
Combined Cycle	14.93	16.21	16.21	18.20	18.20	18.20	18.20	18.20	18.20	18.20	18.20	3.0%
Combustion Turbine/ Diesel	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	7.09	7.21	0.2%
Nuclear Power	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	0.0%
Pumped Storage/Other 2/	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	3.69	0.0%
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Renewable Sources 3/	15.50	15.51	15.52	15.53	15.60	15.71	15.76	15.77	15.98	16.33	16.66	0.5%
Total	71.50	73.28	75.09	77.10	78.97	80.95	82.80	84.77	86.98	89.34	91.71	1.8%

**Table 75. Electric Generation Capacity by Electricity Market Module Region and Source (Gigawatts)**

1/ Includes oil-, gas-, and dual-fired capacity.

2/ Other includes methane, propane, and blast furnace gas for utilities; and hydrogen, sulfur, batteries, chemicals, fish oil, and spent sulfite liquor.

3/ Renewable sources include conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, other biomass, solar thermal, photovoltaics, and wind power.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators. Values represent net summer capacity, which is the steady hourly output that generating equipment is expected to supply to system load as demonstrated by tests during summer peak load.

Sources: 2003 utility: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," 2002 (preliminary). Other 2003 and projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 76. Renewable Energy Generation by Fuel East Central Area Reliability Coordination Agreement**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	1.25	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.17	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Wood and Other Biomass 4/	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Total	1.62	1.74	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	3.69	4.16	2.43	2.74	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	1.15	1.15	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Wood and Other Biomass 4/	1.04	1.03	2.41	2.39	2.58	2.69	3.28	4.01	4.94	5.00	5.25	5.49	5.86
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Total	5.87	6.33	6.40	6.69	7.00	7.11	7.70	8.43	9.36	9.41	9.66	9.91	10.27
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.04	0.04	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Wood and Other Biomass 4/	0.01	0.01	0.03	0.03	0.03	0.03	0.04	0.05	0.06	0.06	0.06	0.06	0.07
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	0.07	0.08	0.08	0.08	0.08	0.09	0.10	0.11	0.11	0.11	0.11	0.12
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.13	0.13	0.14	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.17	0.17	0.17
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	0.17	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.22	0.23
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.16	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.07	0.08	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Wood and Other Biomass 4/	1.29	1.22	1.30	1.37	1.39	1.41	1.45	1.48	1.50	1.52	1.54	1.56	1.58
Solar Photovoltaic 5/	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04
Total	1.53	1.57	1.67	1.74	1.76	1.79	1.83	1.87	1.89	1.92	1.94	1.95	1.98
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 76. Renewable Energy Generation by Fuel East Central Area Reliability Coordination Agreement**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03



**Table 76. Renewable Energy Generation by Fuel East Central Area Reliability Coordination Agreement**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.0%
Wood and Other Biomass 4/	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.25	0.30	0.30	2.0%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.08	0.08	0.08	0.08	0.14	0.24	0.27	0.27	0.27	0.27	0.27	6.3%
Total	1.75	1.75	1.75	1.75	1.81	1.91	1.94	1.94	1.99	2.05	2.05	0.8%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	-1.7%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	0.5%
Wood and Other Biomass 4/	6.05	6.02	5.84	6.14	6.20	6.16	6.03	5.94	4.92	5.25	4.84	7.3%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.26	0.26	0.26	0.26	0.46	0.81	0.95	0.95	0.95	0.95	0.95	N/A
Total	10.46	10.44	10.26	10.56	10.82	11.12	11.14	11.05	10.03	10.36	9.95	2.1%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	-1.7%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.5%
Wood and Other Biomass 4/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.05	7.9%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	N/A
Total	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.12	0.11	0.12	0.11	2.2%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%
Wood and Other Biomass 4/	0.17	0.18	0.18	0.19	0.19	0.19	0.20	0.20	0.21	0.21	0.21	2.3%
Solar Photovoltaic 5/	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.06	17.0%
Total	0.23	0.23	0.24	0.25	0.25	0.26	0.27	0.28	0.29	0.30	0.31	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.8%
Wood and Other Biomass 4/	1.61	1.62	1.65	1.69	1.73	1.77	1.81	1.84	1.87	1.90	1.92	2.1%
Solar Photovoltaic 5/	0.04	0.04	0.05	0.06	0.07	0.07	0.09	0.10	0.12	0.14	0.17	16.9%
Total	2.01	2.02	2.06	2.11	2.16	2.20	2.25	2.29	2.35	2.39	2.44	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 76. Renewable Energy Generation by Fuel East Central Area Reliability Coordination Agreement**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.5%

**Table 76. Renewable Energy Generation by Fuel East Central Area Reliability Coordination Agreement**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 77. Renewable Energy Generation by Fuel Electric Reliability Council of Texas**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.05	0.08	0.08	0.09	0.10	0.10	0.11	0.12	0.12	0.12	0.12	0.12	0.12
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Wind	1.23	1.42	1.52	1.67	1.83	1.98	2.13	2.29	2.29	2.29	2.29	2.29	2.29
Total	1.84	2.07	2.16	2.33	2.49	2.65	2.81	2.98	2.98	2.98	2.98	2.98	2.98
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	0.73	0.67	0.64	0.73	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.11	0.07	0.56	0.61	0.66	0.71	0.77	0.82	0.82	0.82	0.82	0.82	0.82
Wood and Other Biomass 4/	0.00	0.00	0.04	0.09	0.03	0.28	0.07	0.13	0.17	0.17	0.17	0.35	0.40
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04
Wind	2.38	2.26	4.39	4.90	5.41	5.93	6.44	6.95	6.95	6.95	6.95	6.95	6.95
Total	3.22	3.00	5.64	6.34	6.89	7.70	8.05	8.68	8.72	8.72	8.73	8.91	8.97
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.02	0.02	0.05	0.05	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Total	0.03	0.03	0.06	0.07	0.07	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.15	0.15	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.18	0.19	0.20	0.21	0.21	0.21	0.22	0.22	0.23	0.23	0.23	0.23	0.24
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 77. Renewable Energy Generation by Fuel Electric Reliability Council of Texas**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 77. Renewable Energy Generation by Fuel Electric Reliability Council of Texas**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	1.8%
Wood and Other Biomass 4/	0.00	0.00	0.05	0.05	0.05	0.10	0.20	0.20	0.20	0.29	0.39	N/A
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	8.4%
Wind	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.2%
Total	2.99	2.99	3.04	3.04	3.05	3.10	3.19	3.20	3.20	3.29	3.39	2.3%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.5%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	12.2%
Wood and Other Biomass 4/	0.40	0.25	0.34	0.39	0.42	0.59	1.08	1.29	1.59	1.84	2.39	N/A
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	0.09	0.09	0.10	N/A
Wind	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	5.2%
Total	8.98	8.83	8.92	8.98	9.01	9.19	9.68	9.90	10.20	10.45	11.01	6.1%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	12.2%
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	N/A
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	5.2%
Total	0.10	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11	6.0%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.8%
Wood and Other Biomass 4/	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.22	0.23	0.23	2.1%
Solar Photovoltaic 5/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	16.9%
Total	0.24	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.28	0.29	0.29	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 77. Renewable Energy Generation by Fuel Electric Reliability Council of Texas**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.5%

**Table 77. Renewable Energy Generation by Fuel Electric Reliability Council of Texas**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.



**Table 78. Renewable Energy Generation by Fuel Mid-Atlantic Area Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.03	0.07	0.07	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Total	1.89	1.92	1.92	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	3.58	5.25	3.92	4.43	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	3.63	3.68	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39
Wood and Other Biomass 4/	0.46	0.43	1.88	2.32	2.77	3.12	3.24	3.29	4.42	4.89	4.69	4.70	4.94
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.06	0.07	0.18	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Total	7.73	9.43	10.37	11.50	12.14	12.49	12.61	12.66	13.79	14.25	14.06	14.07	14.31
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.04	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Wood and Other Biomass 4/	0.00	0.00	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.05	0.05	0.05
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.09	0.11	0.13	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.16	0.16	0.16
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.11
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Total	0.10	0.11	0.11	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.14	0.14	0.14
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.08	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.03	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Wood and Other Biomass 4/	0.61	0.58	0.62	0.65	0.66	0.67	0.68	0.70	0.71	0.72	0.73	0.74	0.75
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Total	0.72	0.74	0.79	0.82	0.83	0.84	0.86	0.88	0.90	0.91	0.92	0.92	0.94
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 78. Renewable Energy Generation by Fuel Mid-Atlantic Area Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

**Table 78. Renewable Energy Generation by Fuel Mid-Atlantic Area Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.0%
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.0%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	3.1%
Total	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	0.2%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	-0.6%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39	0.8%
Wood and Other Biomass 4/	4.94	4.95	4.82	4.92	4.92	4.94	4.93	4.93	4.90	4.87	4.62	11.4%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	7.9%
Total	14.30	14.32	14.19	14.28	14.29	14.31	14.30	14.30	14.27	14.24	13.99	1.8%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	-0.6%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.8%
Wood and Other Biomass 4/	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	12.3%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9%
Total	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	1.8%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%
Wood and Other Biomass 4/	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.13	0.13	2.3%
Solar Photovoltaic 5/	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	17.0%
Total	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.17	0.18	0.18	0.19	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.8%
Wood and Other Biomass 4/	0.76	0.77	0.78	0.80	0.82	0.84	0.85	0.87	0.88	0.90	0.91	2.1%
Solar Photovoltaic 5/	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.07	0.08	16.9%
Total	0.95	0.96	0.97	1.00	1.02	1.04	1.06	1.09	1.11	1.13	1.16	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 78. Renewable Energy Generation by Fuel Mid-Atlantic Area Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	1.5%

**Table 78. Renewable Energy Generation by Fuel Mid-Atlantic Area Council**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 79. Renewable Energy Generation by Fuel Mid-America Interconnected Network**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.34	0.34	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.03	0.09	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Total	0.98	1.04	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	3.34	2.55	1.77	2.00	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	1.20	1.11	2.40	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
Wood and Other Biomass 4/	0.00	0.00	0.02	0.03	0.13	0.29	0.29	0.45	0.47	0.64	0.69	0.91	0.94
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.11	0.22	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Total	4.65	3.87	4.51	4.76	4.94	5.10	5.10	5.27	5.28	5.45	5.50	5.72	5.76
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.04	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.15	0.15	0.16	0.17	0.17	0.17	0.18	0.18	0.19	0.19	0.19	0.19	0.20
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.19	0.20	0.21	0.22	0.22	0.23	0.23	0.24	0.25	0.25	0.25	0.25	0.26
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.15	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.07	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Wood and Other Biomass 4/	1.16	1.10	1.17	1.23	1.25	1.27	1.30	1.33	1.35	1.37	1.39	1.40	1.42
Solar Photovoltaic 5/	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04
Total	1.37	1.41	1.50	1.56	1.58	1.61	1.64	1.68	1.70	1.72	1.74	1.75	1.78
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 79. Renewable Energy Generation by Fuel Mid-America Interconnected Network**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03

**Table 79. Renewable Energy Generation by Fuel Mid-America Interconnected Network**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.1%
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.11	0.19	0.28	0.35	N/A
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	2.1%
Total	1.10	1.10	1.10	1.10	1.10	1.10	1.15	1.21	1.29	1.38	1.45	1.5%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	-0.9%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	3.6%
Wood and Other Biomass 4/	0.82	0.83	0.83	0.90	0.78	0.81	0.85	1.06	1.32	1.69	2.21	41.9%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	1.8%
Total	5.63	5.64	5.64	5.71	5.60	5.62	5.66	5.88	6.13	6.51	7.03	2.7%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-0.9%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	3.6%
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	41.1%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.8%
Total	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	2.6%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%
Wood and Other Biomass 4/	0.20	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.24	0.24	0.24	2.3%
Solar Photovoltaic 5/	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.06	0.07	17.0%
Total	0.26	0.27	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.36	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.8%
Wood and Other Biomass 4/	1.44	1.45	1.49	1.52	1.56	1.59	1.62	1.65	1.68	1.70	1.72	2.1%
Solar Photovoltaic 5/	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.11	0.13	0.15	16.9%
Total	1.80	1.82	1.85	1.89	1.94	1.98	2.02	2.06	2.11	2.15	2.19	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%



**Table 79. Renewable Energy Generation by Fuel Mid-America Interconnected Network**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.5%

**Table 79. Renewable Energy Generation by Fuel Mid-America Interconnected Network**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 80. Renewable Energy Generation by Fuel Mid-Continent Area Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12
Wood and Other Biomass 4/	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.85	1.09	1.12	1.62	1.64	1.65	1.67	1.69	1.71	1.71	1.71	1.71	1.71
Total	4.02	4.26	4.29	4.79	4.81	4.83	4.84	4.86	4.88	4.88	4.88	4.88	4.88
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	10.01	9.71	11.42	12.88	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.95	0.93	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.76
Wood and Other Biomass 4/	0.03	0.04	0.70	0.70	0.70	0.70	0.70	0.75	0.75	0.77	0.78	0.80	0.78
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	1.85	1.99	2.93	4.50	4.55	4.61	4.67	4.73	4.79	4.80	4.80	4.80	4.80
Total	12.83	12.67	15.78	18.81	19.39	19.45	19.51	19.62	19.68	19.71	19.72	19.75	19.75
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.10	0.10	0.12	0.13	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.02	0.02	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Total	0.14	0.13	0.17	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.12	0.12	0.13	0.14	0.14	0.14	0.15	0.15	0.15	0.15	0.16	0.16	0.16
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	0.16	0.16	0.17	0.18	0.18	0.18	0.19	0.20	0.20	0.20	0.21	0.21	0.21
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.09	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Wood and Other Biomass 4/	0.71	0.67	0.71	0.75	0.76	0.77	0.79	0.81	0.82	0.83	0.84	0.85	0.87
Solar Photovoltaic 5/	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
Total	0.84	0.86	0.91	0.95	0.96	0.98	1.00	1.02	1.04	1.05	1.06	1.07	1.08
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 80. Renewable Energy Generation by Fuel Mid-Continent Area Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02

**Table 80. Renewable Energy Generation by Fuel Mid-Continent Area Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.1%
Wood and Other Biomass 4/	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.0%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.74	1.79	1.81	1.81	2.3%
Total	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.92	4.96	4.98	4.98	0.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	1.5%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	-0.9%
Wood and Other Biomass 4/	0.72	0.72	0.72	0.72	0.71	0.71	0.70	0.70	0.70	0.70	0.70	13.7%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.93	5.09	5.15	5.15	4.4%
Total	19.69	19.69	19.69	19.69	19.68	19.68	19.67	19.80	19.96	20.02	20.02	2.1%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	1.5%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-0.9%
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	15.6%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	4.4%
Total	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	2.1%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%
Wood and Other Biomass 4/	0.16	0.16	0.17	0.17	0.18	0.18	0.19	0.19	0.19	0.20	0.20	2.3%
Solar Photovoltaic 5/	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.05	17.0%
Total	0.21	0.22	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.28	0.29	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.8%
Wood and Other Biomass 4/	0.88	0.89	0.90	0.93	0.95	0.97	0.99	1.00	1.02	1.04	1.05	2.1%
Solar Photovoltaic 5/	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.09	16.9%
Total	1.10	1.11	1.13	1.15	1.18	1.21	1.23	1.26	1.28	1.31	1.34	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 80. Renewable Energy Generation by Fuel Mid-Continent Area Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	1.5%

**Table 80. Renewable Energy Generation by Fuel Mid-Continent Area Power Pool**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 81. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New York**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	4.46	4.53	4.60	4.67	4.82	4.82	4.82	4.82	4.82	4.82	4.82	4.82	4.82
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.05	0.05	0.05	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Total	4.80	4.87	4.94	5.16	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31
Electricity Generation (billion kilowatt-hours)													
Conventional Hydropower	24.86	24.74	25.35	25.69	26.39	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	1.85	1.77	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
Wood and Other Biomass 4/	0.23	0.23	1.07	2.47	2.65	2.76	2.75	2.78	1.69	1.04	1.17	1.14	0.91
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.08	0.08	0.12	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
Total	27.02	26.82	28.36	30.53	31.41	31.78	31.76	31.80	30.71	30.05	30.19	30.15	29.92
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.26	0.25	0.26	0.26	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Wood and Other Biomass 4/	0.00	0.00	0.01	0.03	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.01	0.01
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	0.28	0.28	0.30	0.32	0.33	0.33	0.33	0.33	0.32	0.32	0.32	0.32	0.31
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Electricity Generation (billion kilowatt-hours)													
Conventional Hydropower 7/	0.04	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Wood and Other Biomass 4/	0.35	0.33	0.35	0.37	0.38	0.38	0.39	0.40	0.41	0.41	0.42	0.42	0.43
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	0.42	0.43	0.45	0.47	0.48	0.49	0.50	0.51	0.52	0.52	0.53	0.53	0.54
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



**Table 81. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New York**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

**Table 81. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New York**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	4.82	4.82	4.82	4.82	4.82	4.82	4.82	4.82	4.82	4.82	4.82	0.3%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.0%
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.0%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wind	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	6.6%
Total	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	0.4%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	0.3%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	0.1%
Wood and Other Biomass 4/	0.91	0.90	0.89	0.90	0.90	0.90	0.90	0.89	0.88	0.87	0.86	6.2%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	9.3%
Total	29.93	29.92	29.91	29.91	29.91	29.92	29.91	29.91	29.90	29.89	29.88	0.5%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.3%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.1%
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	6.5%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	9.3%
Total	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.5%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	2.3%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	17.0%
Total	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.09	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.8%
Wood and Other Biomass 4/	0.44	0.44	0.45	0.46	0.47	0.48	0.49	0.50	0.51	0.52	0.52	2.1%
Solar Photovoltaic 5/	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.05	16.9%
Total	0.55	0.55	0.56	0.57	0.59	0.60	0.61	0.63	0.64	0.65	0.67	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 81. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New York**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.5%

**Table 81. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New York**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 82. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New England**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.61	0.62	0.64	0.64	0.64	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Wood and Other Biomass 4/	0.42	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total	2.76	2.78	2.79	2.80	2.80	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	5.26	6.14	4.23	4.77	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	4.27	4.07	4.77	4.77	4.77	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
Wood and Other Biomass 4/	2.77	2.76	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.01	0.01	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Total	12.31	12.98	11.42	11.97	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.05	0.06	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Wood and Other Biomass 4/	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.14	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Wood and Other Biomass 4/	0.47	0.47	0.51	0.54	0.55	0.56	0.57	0.59	0.60	0.60	0.61	0.62	0.63
Solar Photovoltaic 5/	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.05	0.05
Total	0.62	0.63	0.67	0.70	0.71	0.73	0.75	0.77	0.79	0.80	0.81	0.82	0.83
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.34	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.15	0.17	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Wood and Other Biomass 4/	2.70	2.56	2.72	2.87	2.90	2.95	3.03	3.10	3.14	3.18	3.23	3.26	3.31
Solar Photovoltaic 5/	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.08	0.08	0.08	0.08	0.08
Total	3.20	3.29	3.48	3.63	3.68	3.74	3.83	3.91	3.96	4.01	4.06	4.09	4.14
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

**Table 82. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New England**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06

**Table 82. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New England**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.2%
Wood and Other Biomass 4/	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.0%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.8%
Wind	0.08	0.67	0.70	0.72	0.76	0.81	0.85	0.89	0.94	0.94	0.94	21.4%
Total	2.88	3.47	3.50	3.53	3.56	3.61	3.66	3.69	3.74	3.74	3.74	1.4%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	-1.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.96	4.96	4.96	4.96	0.9%
Wood and Other Biomass 4/	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	-0.7%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.28	2.48	2.58	2.67	2.80	2.96	3.12	3.24	3.40	3.40	3.40	29.8%
Total	12.59	14.79	14.89	14.98	15.11	15.27	15.43	15.55	15.72	15.72	15.72	0.9%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	-1.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.9%
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	1.5%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	29.8%
Total	0.16	0.18	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19	0.19	1.2%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0%
Wood and Other Biomass 4/	0.64	0.65	0.66	0.68	0.70	0.72	0.73	0.75	0.76	0.77	0.78	2.3%
Solar Photovoltaic 5/	0.05	0.06	0.06	0.07	0.08	0.09	0.11	0.13	0.15	0.18	0.21	17.0%
Total	0.85	0.85	0.88	0.90	0.93	0.96	0.99	1.02	1.06	1.10	1.14	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.8%
Wood and Other Biomass 4/	3.36	3.39	3.46	3.54	3.63	3.70	3.78	3.84	3.91	3.97	4.01	2.1%
Solar Photovoltaic 5/	0.09	0.09	0.11	0.12	0.14	0.16	0.18	0.21	0.25	0.30	0.35	16.9%
Total	4.20	4.23	4.31	4.41	4.51	4.61	4.71	4.80	4.91	5.01	5.11	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%

**Table 82. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New England**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	1.5%



**Table 82. Renewable Energy Generation by Fuel Northeast Power Coordinating Council/New England**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 83. Renewable Energy Generation by Fuel Florida Reliability Coordinating Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.48	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.50	0.51	0.51	0.51
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.07	0.07	0.07	0.07	0.13
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.55	0.55	0.55	0.55	0.55	0.57	0.57	0.57	0.62	0.62	0.62	0.62	0.69
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	0.18	0.26	0.20	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	3.32	3.25	3.18	3.18	3.18	3.32	3.32	3.32	3.32	3.32	3.33	3.33	3.33
Wood and Other Biomass 4/	0.29	0.47	0.35	0.48	0.55	0.62	0.73	0.74	0.96	1.13	1.20	1.22	1.53
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.79	3.99	3.73	3.88	3.96	4.17	4.28	4.30	4.52	4.69	4.76	4.78	5.09
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.05	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.12	0.12	0.13	0.13	0.14	0.14	0.14	0.15	0.15	0.15	0.15	0.16	0.16
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	0.16	0.16	0.17	0.18	0.18	0.18	0.19	0.19	0.20	0.20	0.20	0.20	0.21
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.10	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Wood and Other Biomass 4/	0.83	0.79	0.83	0.88	0.89	0.91	0.93	0.95	0.96	0.98	0.99	1.00	1.01
Solar Photovoltaic 5/	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03
Total	0.98	1.01	1.07	1.11	1.13	1.15	1.17	1.20	1.22	1.23	1.24	1.25	1.27
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 83. Renewable Energy Generation by Fuel Florida Reliability Coordinating Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

**Table 83. Renewable Energy Generation by Fuel Florida Reliability Coordinating Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.2%
Wood and Other Biomass 4/	0.19	0.19	0.28	0.39	0.46	0.60	0.60	0.60	0.60	0.77	0.95	20.8%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.75	0.75	0.83	0.94	1.01	1.15	1.15	1.15	1.15	1.33	1.51	4.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	-0.5%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	0.1%
Wood and Other Biomass 4/	1.91	1.98	2.38	2.99	3.57	4.24	4.60	4.87	5.00	5.47	6.21	12.4%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	5.47	5.54	5.94	6.55	7.13	7.80	8.16	8.43	8.56	9.03	9.78	4.2%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.5%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1%
Wood and Other Biomass 4/	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	12.1%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	3.2%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%
Wood and Other Biomass 4/	0.16	0.16	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.20	2.3%
Solar Photovoltaic 5/	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.05	17.0%
Total	0.21	0.21	0.22	0.23	0.23	0.24	0.25	0.26	0.27	0.28	0.29	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.8%
Wood and Other Biomass 4/	1.03	1.04	1.06	1.09	1.11	1.14	1.16	1.18	1.20	1.22	1.23	2.1%
Solar Photovoltaic 5/	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.11	16.9%
Total	1.29	1.30	1.32	1.35	1.38	1.41	1.44	1.47	1.51	1.54	1.57	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 83. Renewable Energy Generation by Fuel Florida Reliability Coordinating Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	1.5%

**Table 83. Renewable Energy Generation by Fuel Florida Reliability Coordinating Council**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 84. Renewable Energy Generation by Fuel Southeastern Electric Reliability Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.17	0.17	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Wood and Other Biomass 4/	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.18
Total	12.29	12.29	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.49
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	27.86	42.02	29.37	33.14	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	1.18	1.35	1.23	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
Wood and Other Biomass 4/	1.22	1.09	4.36	5.47	5.75	5.78	6.62	7.25	7.49	7.33	7.02	6.96	7.00
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.61
Total	30.27	44.46	35.02	39.91	41.60	41.62	42.46	43.09	43.33	43.17	42.87	42.81	43.40
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.29	0.43	0.30	0.34	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Wood and Other Biomass 4/	0.01	0.01	0.07	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.31	0.46	0.39	0.44	0.46	0.46	0.47	0.47	0.48	0.47	0.47	0.47	0.48
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.57	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.13	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Wood and Other Biomass 4/	2.27	2.27	2.43	2.58	2.62	2.67	2.75	2.82	2.86	2.91	2.95	2.98	3.04
Solar Photovoltaic 5/	0.02	0.03	0.04	0.06	0.08	0.11	0.14	0.17	0.21	0.22	0.22	0.23	0.23
Total	2.99	3.02	3.20	3.36	3.42	3.50	3.61	3.71	3.80	3.85	3.90	3.93	3.99
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	2.13	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.96	1.08	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Wood and Other Biomass 4/	16.87	16.02	17.01	17.92	18.14	18.45	18.93	19.37	19.61	19.89	20.18	20.36	20.68
Solar Photovoltaic 5/	0.05	0.07	0.10	0.13	0.18	0.24	0.30	0.38	0.48	0.49	0.50	0.51	0.52
Total	20.01	20.55	21.78	22.72	23.00	23.37	23.91	24.43	24.77	25.05	25.36	25.54	25.88
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

**Table 84. Renewable Energy Generation by Fuel Southeastern Electric Reliability Council**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Wood and Other Biomass 4/	0.27	0.24	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.31	0.32	0.33	0.33	0.34	0.34	0.35	0.35	0.36	0.36	0.36	0.37



**Table 84. Renewable Energy Generation by Fuel Southeastern Electric Reliability Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77	11.77	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.19	0.19	0.19	0.19	0.19	0.22	0.22	0.22	0.22	0.22	0.22	1.2%
Wood and Other Biomass 4/	0.41	0.41	0.41	0.41	0.46	0.46	0.46	0.46	0.55	0.61	0.71	3.2%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wind	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.34	26.0%
Total	12.68	12.68	12.68	12.68	12.74	12.77	12.77	12.77	12.86	12.91	13.03	0.3%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	-0.9%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	1.24	1.24	1.24	1.24	1.24	1.48	1.48	1.48	1.49	1.49	1.49	0.5%
Wood and Other Biomass 4/	7.19	7.36	7.36	7.43	7.52	6.91	7.08	7.02	7.25	6.70	6.14	8.2%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.16	33.5%
Total	44.07	44.24	44.24	44.31	44.41	44.03	44.20	44.15	44.38	43.83	43.34	-0.1%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	-0.9%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.5%
Wood and Other Biomass 4/	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	10.1%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	33.5%
Total	0.48	0.49	0.49	0.49	0.49	0.48	0.49	0.48	0.49	0.48	0.47	0.1%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.0%
Wood and Other Biomass 4/	3.09	3.12	3.19	3.27	3.36	3.44	3.52	3.58	3.65	3.71	3.76	2.3%
Solar Photovoltaic 5/	0.25	0.26	0.30	0.34	0.39	0.44	0.51	0.60	0.72	0.85	1.00	17.0%
Total	4.06	4.10	4.21	4.34	4.47	4.61	4.75	4.91	5.10	5.29	5.49	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	0.8%
Wood and Other Biomass 4/	21.02	21.17	21.62	22.12	22.68	23.15	23.62	24.02	24.43	24.79	25.10	2.1%
Solar Photovoltaic 5/	0.55	0.58	0.67	0.76	0.85	0.98	1.12	1.33	1.58	1.86	2.17	16.9%
Total	26.25	26.43	26.96	27.55	28.21	28.81	29.42	30.02	30.69	31.33	31.95	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0%

**Table 84. Renewable Energy Generation by Fuel Southeastern Electric Reliability Council**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0%
Wood and Other Biomass 4/	0.31	0.31	0.32	0.32	0.33	0.33	0.34	0.35	0.35	0.36	0.36	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.37	0.37	0.38	0.38	0.39	0.40	0.40	0.41	0.41	0.42	0.42	1.5%

**Table 84. Renewable Energy Generation by Fuel Southeastern Electric Reliability Council**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 85. Renewable Energy Generation by Fuel Southwest Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
Wind	0.20	0.38	0.38	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Total	2.72	2.90	2.90	3.15	3.16	3.16	3.16	3.16	3.16	3.16	3.17	3.17	3.17
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	6.33	4.73	4.34	4.90	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.01	0.06	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Wood and Other Biomass 4/	0.00	0.00	0.27	0.69	0.65	0.84	0.74	0.81	0.77	0.79	0.79	0.78	0.80
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05
Wind	0.68	0.68	1.18	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92
Total	7.02	5.47	5.81	7.54	7.71	7.90	7.81	7.88	7.84	7.87	7.87	7.86	7.90
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.07	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total	0.07	0.06	0.06	0.08	0.08	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Wood and Other Biomass 4/	0.26	0.26	0.28	0.30	0.30	0.31	0.32	0.33	0.33	0.34	0.34	0.35	0.35
Solar Photovoltaic 5/	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03
Total	0.35	0.35	0.37	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.45	0.46	0.46
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.24	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.11	0.12	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Wood and Other Biomass 4/	1.93	1.84	1.95	2.05	2.08	2.12	2.17	2.22	2.25	2.28	2.31	2.33	2.37
Solar Photovoltaic 5/	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.06	0.06	0.06	0.06	0.06
Total	2.29	2.36	2.50	2.61	2.64	2.68	2.74	2.80	2.84	2.87	2.91	2.93	2.97
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 85. Renewable Energy Generation by Fuel Southwest Power Pool**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

**Table 85. Renewable Energy Generation by Fuel Southwest Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.8%
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.11	0.11	N/A
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.05	19.2%
Wind	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	2.4%
Total	3.18	3.18	3.18	3.18	3.19	3.23	3.24	3.24	3.24	3.31	3.31	0.6%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	0.4%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	-1.6%
Wood and Other Biomass 4/	0.80	0.74	0.46	0.39	0.38	0.44	0.26	0.52	0.70	1.03	0.69	N/A
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.06	0.06	0.07	0.07	0.08	0.09	0.09	0.10	0.10	0.11	0.12	N/A
Wind	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	4.8%
Total	7.92	7.86	7.60	7.53	7.52	7.59	7.42	7.68	7.87	8.21	7.87	1.7%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.4%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.6%
Wood and Other Biomass 4/	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	N/A
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	4.8%
Total	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.08	1.6%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.0%
Wood and Other Biomass 4/	0.36	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.42	0.43	0.44	2.3%
Solar Photovoltaic 5/	0.03	0.03	0.04	0.04	0.04	0.05	0.06	0.07	0.08	0.10	0.12	17.0%
Total	0.47	0.48	0.49	0.50	0.52	0.54	0.55	0.57	0.59	0.61	0.64	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.8%
Wood and Other Biomass 4/	2.41	2.43	2.48	2.54	2.60	2.65	2.71	2.75	2.80	2.84	2.88	2.1%
Solar Photovoltaic 5/	0.06	0.07	0.08	0.09	0.10	0.11	0.13	0.15	0.18	0.21	0.25	16.9%
Total	3.01	3.03	3.09	3.16	3.23	3.30	3.37	3.44	3.52	3.59	3.66	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 85. Renewable Energy Generation by Fuel Southwest Power Pool**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003- 2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	1.5%

**Table 85. Renewable Energy Generation by Fuel Southwest Power Pool**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.



**Table 86. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Northwest Power Pool Area**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	35.23	35.23	35.23	35.23	35.23	35.23	35.23	35.23	35.20	35.20	35.20	35.20	35.20
Geothermal 2/	0.19	0.19	0.19	0.20	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.35
Municipal Solid Waste 3/	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Wood and Other Biomass 4/	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
Solar Photovoltaic 5/	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.04	0.04
Wind	0.40	0.48	0.48	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
Total	36.09	36.16	36.17	36.26	36.28	36.28	36.29	36.29	36.26	36.27	36.27	36.28	36.41
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	130.14	120.04	127.78	144.14	150.24	150.24	150.24	150.24	150.08	150.00	150.00	150.00	150.00
Geothermal 2/	1.32	1.27	1.60	1.63	1.69	1.72	1.73	1.73	1.73	1.73	1.73	1.73	2.77
Municipal Solid Waste 3/	0.32	0.30	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Wood and Other Biomass 4/	0.81	0.68	1.10	1.22	1.29	1.19	0.90	0.90	0.91	0.97	1.00	0.99	0.99
Solar Thermal	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03
Solar Photovoltaic 5/	0.00	0.00	0.01	0.02	0.02	0.03	0.03	0.04	0.05	0.07	0.08	0.09	0.10
Wind	0.69	0.84	1.61	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88
Total	133.28	123.13	132.80	149.59	155.83	155.76	155.50	155.51	155.36	155.36	155.40	155.41	156.46
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	1.34	1.23	1.31	1.48	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
Geothermal 2/	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.07
Municipal Solid Waste 3/	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total	1.38	1.28	1.39	1.57	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.66
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Wood and Other Biomass 4/	0.29	0.29	0.31	0.33	0.33	0.34	0.35	0.36	0.36	0.37	0.38	0.38	0.39
Solar Photovoltaic 5/	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03
Total	0.38	0.38	0.41	0.43	0.44	0.44	0.46	0.47	0.48	0.49	0.50	0.50	0.51
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.18	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.08	0.09	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Wood and Other Biomass 4/	1.41	1.34	1.42	1.50	1.52	1.54	1.58	1.62	1.64	1.66	1.69	1.70	1.73
Solar Photovoltaic 5/	0.00	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.04
Total	1.67	1.72	1.82	1.90	1.92	1.96	2.00	2.04	2.07	2.10	2.12	2.14	2.17
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 86. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Northwest Power Pool Area**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

**Table 86. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Northwest Power Pool Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	35.20	35.20	35.20	35.20	35.20	35.20	35.20	35.20	35.20	35.20	35.20	0.0%
Geothermal 2/	0.47	0.60	0.72	0.81	0.97	1.09	1.24	1.36	1.43	1.48	1.57	10.1%
Municipal Solid Waste 3/	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	1.2%
Wood and Other Biomass 4/	0.17	0.17	0.17	0.21	0.25	0.25	0.29	0.35	0.35	0.35	0.41	4.1%
Solar Thermal	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	14.5%
Solar Photovoltaic 5/	0.05	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.09	0.09	19.0%
Wind	0.55	0.55	0.60	0.65	0.74	0.83	0.93	1.05	1.05	1.05	1.14	4.1%
Total	36.56	36.70	36.87	37.06	37.36	37.58	37.88	38.18	38.26	38.31	38.55	0.3%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	1.0%
Geothermal 2/	3.80	4.88	5.93	6.77	8.06	9.14	10.38	11.44	12.05	12.50	13.25	11.2%
Municipal Solid Waste 3/	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.89	0.89	0.89	0.89	5.2%
Wood and Other Biomass 4/	0.99	0.97	0.99	1.08	1.32	1.44	1.69	1.98	2.12	2.20	2.47	6.1%
Solar Thermal	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	N/A
Solar Photovoltaic 5/	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.21	N/A
Wind	1.88	1.88	2.06	2.24	2.59	2.92	3.33	3.79	3.79	3.79	4.11	7.5%
Total	157.71	158.77	160.04	161.16	163.06	164.61	166.52	168.34	169.11	169.66	171.02	1.5%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.0%
Geothermal 2/	0.11	0.14	0.17	0.20	0.24	0.28	0.32	0.36	0.38	0.40	0.42	13.4%
Municipal Solid Waste 3/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	5.2%
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	7.3%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.04	7.5%
Total	1.70	1.73	1.77	1.80	1.85	1.89	1.94	1.98	2.00	2.02	2.05	2.2%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.0%
Wood and Other Biomass 4/	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.46	0.47	0.48	2.3%
Solar Photovoltaic 5/	0.03	0.03	0.04	0.04	0.05	0.06	0.06	0.08	0.09	0.11	0.13	17.0%
Total	0.52	0.52	0.54	0.55	0.57	0.59	0.60	0.62	0.65	0.67	0.70	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.8%
Wood and Other Biomass 4/	1.76	1.77	1.81	1.85	1.90	1.94	1.98	2.01	2.04	2.07	2.10	2.1%
Solar Photovoltaic 5/	0.05	0.05	0.06	0.06	0.07	0.08	0.09	0.11	0.13	0.16	0.18	16.9%
Total	2.20	2.21	2.26	2.31	2.36	2.41	2.46	2.51	2.57	2.62	2.67	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 86. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Northwest Power Pool Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003- 2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	1.5%

**Table 86. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Northwest Power Pool Area**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam)

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a

**Table 87. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40
Geothermal 2/	0.32	0.32	0.32	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Municipal Solid Waste 3/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Wood and Other Biomass 4/	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Thermal	0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06
Solar Photovoltaic 5/	0.01	0.01	0.02	0.02	0.04	0.04	0.05	0.05	0.06	0.06	0.06	0.07	0.07
Wind	0.39	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	6.14	6.66	6.68	6.88	6.91	6.91	6.91	6.92	6.92	6.93	6.93	6.94	6.94
Electricity Generation (billion kilowatt-hours)													
Conventional Hydropower	13.12	12.05	12.73	14.34	14.94	14.94	14.94	14.94	14.94	14.94	14.94	14.94	14.94
Geothermal 2/	2.46	2.39	2.66	3.05	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18
Municipal Solid Waste 3/	0.12	0.09	0.22	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Wood and Other Biomass 4/	0.00	0.00	0.04	0.05	0.06	0.17	0.26	0.27	0.30	0.28	0.23	0.22	0.22
Solar Thermal	0.00	0.00	0.00	0.12	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18
Solar Photovoltaic 5/	0.00	0.00	0.04	0.04	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.14
Wind	0.92	1.14	2.99	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31
Total	16.62	15.68	18.68	21.14	21.95	22.07	22.17	22.20	22.24	22.23	22.19	22.20	22.21
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.13	0.12	0.13	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Geothermal 2/	0.05	0.05	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Municipal Solid Waste 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.01	0.01	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Total	0.20	0.19	0.22	0.26	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Generation (billion kilowatt-hours)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy Consumption													

**Table 87. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

(quadrillion Btu)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 87. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	0.0%
Geothermal 2/	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.43	0.48	1.9%
Municipal Solid Waste 3/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.3%
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.07	0.07	15.4%
Solar Thermal	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	N/A
Solar Photovoltaic 5/	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	10.0%
Wind	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.02	1.04	0.7%
Total	6.94	6.95	6.95	6.96	6.96	6.96	6.97	6.97	6.97	7.10	7.17	0.3%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	14.94	14.94	14.94	14.94	14.94	14.94	14.94	14.94	14.94	14.94	14.94	1.0%
Geothermal 2/	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.59	3.99	2.4%
Municipal Solid Waste 3/	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	4.2%
Wood and Other Biomass 4/	0.22	0.28	0.22	0.28	0.14	0.14	0.14	0.06	0.06	0.30	0.38	N/A
Solar Thermal	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	N/A
Solar Photovoltaic 5/	0.15	0.16	0.17	0.17	0.18	0.19	0.19	0.20	0.21	0.22	0.22	N/A
Wind	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.37	3.45	5.2%
Total	22.22	22.29	22.24	22.31	22.18	22.19	22.20	22.13	22.14	22.87	23.43	1.8%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.0%
Geothermal 2/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.09	0.10	3.0%
Municipal Solid Waste 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.2%
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	5.2%
Total	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.28	0.30	2.1%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	#VALUE!
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.8%
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.1%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.9%
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	2.0%
Energy Consumption												



**Table 87. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
(quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.5%

**Table 87. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 88. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/California**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	10.14	10.16	10.16	10.16	10.16	10.16	10.16	10.16	10.16	10.16	10.16	10.16	10.16
Geothermal 2/	1.67	1.67	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.68	1.76	1.78
Municipal Solid Waste 3/	0.33	0.35	0.37	0.37	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48	0.48
Wood and Other Biomass 4/	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.43	0.43
Solar Thermal	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40
Solar Photovoltaic 5/	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06
Wind	1.81	2.00	2.00	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.13	2.16	2.16
Total	14.74	14.97	14.94	15.05	15.08	15.08	15.09	15.09	15.18	15.18	15.28	15.44	15.47
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	30.09	35.22	32.43	36.57	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10
Geothermal 2/	10.64	9.31	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.82	8.44	8.66
Municipal Solid Waste 3/	2.03	2.11	2.59	2.61	2.81	2.81	2.81	2.81	3.43	3.44	3.45	3.46	3.46
Wood and Other Biomass 4/	2.91	2.66	2.35	2.35	2.35	2.35	2.35	2.35	2.36	2.36	2.36	2.55	2.62
Solar Thermal	0.55	0.53	0.59	0.59	0.60	0.60	0.61	0.61	0.62	0.62	0.62	0.63	0.63
Solar Photovoltaic 5/	0.00	0.00	0.05	0.05	0.06	0.07	0.08	0.08	0.09	0.10	0.11	0.12	0.14
Wind	3.57	3.45	5.07	5.43	5.43	5.43	5.43	5.43	5.43	5.43	5.50	5.60	5.60
Total	49.80	53.27	50.28	54.80	56.55	56.56	56.57	56.59	57.23	57.25	57.97	58.90	59.20
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.31	0.36	0.33	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Geothermal 2/	0.22	0.20	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.18	0.20	0.20
Municipal Solid Waste 3/	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05
Wood and Other Biomass 4/	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Solar Thermal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.04	0.04	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Total	0.63	0.65	0.63	0.67	0.69	0.69	0.69	0.69	0.70	0.70	0.72	0.74	0.75
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wood and Other Biomass 4/	0.15	0.15	0.16	0.17	0.18	0.18	0.18	0.19	0.19	0.20	0.20	0.20	0.20
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Total	0.20	0.20	0.21	0.23	0.23	0.24	0.24	0.25	0.26	0.26	0.26	0.26	0.27
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	0.13	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.06	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Wood and Other Biomass 4/	1.03	0.98	1.04	1.10	1.11	1.13	1.16	1.18	1.20	1.22	1.23	1.24	1.26
Solar Photovoltaic 5/	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03
Total	1.22	1.26	1.33	1.39	1.41	1.43	1.46	1.49	1.51	1.53	1.55	1.56	1.58
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Table 88. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/California**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood and Other Biomass 4/	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

**Table 88. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/California**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	10.16	10.16	10.16	10.16	10.16	10.16	10.16	10.16	10.16	10.16	10.16	0.0%
Geothermal 2/	1.81	1.81	1.81	1.81	1.88	1.98	2.03	2.03	2.23	2.40	2.57	2.0%
Municipal Solid Waste 3/	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	1.5%
Wood and Other Biomass 4/	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.53	0.58	1.8%
Solar Thermal	0.40	0.40	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.42	0.42	0.3%
Solar Photovoltaic 5/	0.06	0.07	0.08	0.08	0.09	0.09	0.10	0.11	0.11	0.12	0.12	9.0%
Wind	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.23	2.33	0.7%
Total	15.50	15.51	15.52	15.53	15.60	15.71	15.76	15.77	15.98	16.33	16.66	0.5%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10	0.4%
Geothermal 2/	8.87	8.87	8.87	8.87	9.42	10.25	10.67	10.68	12.35	13.81	15.25	2.3%
Municipal Solid Waste 3/	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.47	3.49	2.3%
Wood and Other Biomass 4/	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	3.08	3.45	1.2%
Solar Thermal	0.64	0.64	0.65	0.66	0.66	0.67	0.67	0.68	0.68	0.69	0.69	1.2%
Solar Photovoltaic 5/	0.15	0.17	0.19	0.20	0.22	0.23	0.25	0.26	0.28	0.30	0.31	25.8%
Wind	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.86	6.18	2.7%
Total	59.50	59.52	59.55	59.57	60.14	60.99	61.43	61.46	63.15	65.31	67.48	1.1%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.4%
Geothermal 2/	0.21	0.21	0.21	0.21	0.23	0.25	0.27	0.27	0.32	0.36	0.41	3.4%
Municipal Solid Waste 3/	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	2.3%
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	2.8%
Solar Thermal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.2%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.8%
Wind	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	2.7%
Total	0.76	0.76	0.76	0.76	0.77	0.80	0.81	0.81	0.87	0.92	0.97	1.8%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0%
Wood and Other Biomass 4/	0.21	0.21	0.21	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.25	2.3%
Solar Photovoltaic 5/	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.06	0.07	17.0%
Total	0.27	0.28	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.36	0.37	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.8%
Wood and Other Biomass 4/	1.28	1.29	1.32	1.35	1.39	1.41	1.44	1.47	1.49	1.52	1.53	2.1%
Solar Photovoltaic 5/	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.10	0.11	0.13	16.9%
Total	1.60	1.62	1.65	1.68	1.72	1.76	1.80	1.83	1.88	1.91	1.95	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%

**Table 88. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/California**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Wood and Other Biomass 4/	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	1.5%

**Table 88. Renewable Energy Generation by Fuel Western Electricity Coordinating Council/California**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.

**Table 89. Renewable Energy Generation by Fuel United States**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	77.80	77.93	78.00	78.07	78.21	78.21	78.21	78.21	78.18	78.18	78.18	78.18	78.18
Geothermal 2/	2.17	2.18	2.12	2.19	2.21	2.21	2.21	2.21	2.21	2.21	2.28	2.36	2.51
Municipal Solid Waste 3/	3.26	3.34	3.41	3.41	3.45	3.47	3.48	3.49	3.57	3.57	3.57	3.57	3.58
Wood and Other Biomass 4/	1.77	1.77	1.78	1.78	1.78	1.78	1.78	1.78	1.83	1.83	1.83	1.88	1.94
Solar Thermal	0.39	0.39	0.39	0.44	0.44	0.44	0.45	0.45	0.45	0.46	0.46	0.46	0.47
Solar Photovoltaic 5/	0.03	0.04	0.05	0.07	0.10	0.11	0.12	0.13	0.15	0.16	0.18	0.19	0.21
Wind	5.01	6.56	6.77	8.18	8.35	8.53	8.70	8.87	8.88	8.88	8.90	8.93	9.08
Total	90.42	92.21	92.52	94.14	94.55	94.75	94.95	95.14	95.27	95.29	95.41	95.58	95.96
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	260.67	269.29	258.38	288.35	300.11	300.42	300.47	300.52	300.39	300.37	300.41	300.46	300.50
Geothermal 2/	14.49	13.15	11.65	12.07	12.26	12.29	12.32	12.32	12.33	12.33	12.96	13.58	14.83
Municipal Solid Waste 3/	20.46	20.28	24.23	24.34	24.61	24.81	24.88	24.94	25.58	25.60	25.62	25.63	25.66
Wood and Other Biomass 4/	9.74	9.40	16.95	20.64	21.89	23.15	24.30	26.12	27.61	27.73	27.71	28.49	29.37
Solar Thermal	0.55	0.53	0.60	0.72	0.76	0.77	0.78	0.79	0.80	0.81	0.82	0.83	0.84
Solar Photovoltaic 5/	0.00	0.00	0.12	0.15	0.20	0.22	0.25	0.28	0.32	0.36	0.39	0.43	0.48
Wind	10.35	10.73	19.16	23.55	24.11	24.68	25.25	25.83	25.89	25.90	25.97	26.07	26.62
Total	316.27	323.38	331.09	369.82	383.94	386.35	388.25	390.80	392.90	393.09	393.88	395.48	398.31
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	2.68	2.77	2.66	2.96	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09
Geothermal 2/	0.30	0.28	0.25	0.26	0.27	0.27	0.27	0.27	0.27	0.27	0.29	0.31	0.35
Municipal Solid Waste 3/	0.28	0.28	0.33	0.33	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35
Wood and Other Biomass 4/	0.10	0.09	0.25	0.29	0.30	0.32	0.32	0.34	0.36	0.36	0.36	0.37	0.38
Solar Thermal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind	0.11	0.11	0.20	0.24	0.25	0.25	0.26	0.27	0.27	0.27	0.27	0.27	0.27
Total	3.47	3.53	3.69	4.10	4.25	4.28	4.29	4.32	4.34	4.35	4.37	4.40	4.45
End-Use Generators 6/													
Generating Capacity (gigawatts)													
Conventional Hydropower 7/	1.02	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.22	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Wood and Other Biomass 4/	4.08	4.08	4.37	4.64	4.70	4.80	4.94	5.07	5.14	5.22	5.31	5.36	5.45
Solar Photovoltaic 5/	0.04	0.06	0.08	0.10	0.14	0.19	0.24	0.31	0.39	0.39	0.40	0.41	0.42
Total	5.37	5.43	5.74	6.04	6.14	6.28	6.48	6.67	6.82	6.91	7.00	7.06	7.17
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 7/	3.67	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	1.65	1.86	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24
Wood and Other Biomass 4/	29.04	27.59	29.29	30.85	31.24	31.77	32.60	33.35	33.76	34.24	34.75	35.05	35.61
Solar Photovoltaic 5/	0.09	0.12	0.16	0.22	0.30	0.41	0.52	0.66	0.83	0.84	0.86	0.88	0.89
Total	34.45	35.39	37.51	39.12	39.60	40.23	41.18	42.07	42.64	43.14	43.67	43.98	44.56
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 7/	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06



**Table 89. Renewable Energy Generation by Fuel United States**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Solid Waste	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Wood and Other Biomass 4/	0.46	0.42	0.44	0.46	0.47	0.47	0.48	0.49	0.50	0.51	0.51	0.52	0.52
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.54	0.53	0.55	0.57	0.57	0.58	0.59	0.60	0.61	0.61	0.62	0.62	0.63

**Table 89. Renewable Energy Generation by Fuel United States**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Electric Power Sector 1/												
Generating Capacity (gigawatts)												
Conventional Hydropower	78.18	78.18	78.18	78.18	78.18	78.18	78.18	78.18	78.18	78.18	78.18	0.0%
Geothermal 2/	2.66	2.78	2.91	3.00	3.22	3.45	3.64	3.76	4.03	4.31	4.62	3.5%
Municipal Solid Waste 3/	3.63	3.63	3.63	3.63	3.63	3.66	3.66	3.66	3.66	3.66	3.67	0.4%
Wood and Other Biomass 4/	2.06	2.06	2.19	2.35	2.51	2.75	2.94	3.06	3.27	3.95	4.50	4.3%
Solar Thermal	0.47	0.47	0.48	0.48	0.49	0.49	0.50	0.50	0.50	0.51	0.51	1.3%
Solar Photovoltaic 5/	0.23	0.25	0.26	0.28	0.30	0.32	0.33	0.35	0.37	0.39	0.40	10.9%
Wind	9.29	9.88	9.95	10.03	10.21	10.45	10.64	10.83	10.92	11.04	11.25	2.5%
Total	96.50	97.24	97.60	97.94	98.53	99.29	99.88	100.34	100.94	102.03	103.13	0.5%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower	300.55	300.60	300.65	300.70	300.75	300.81	300.85	300.91	300.97	301.03	301.09	0.5%
Geothermal 2/	16.09	17.17	18.23	19.07	20.91	22.83	24.50	25.57	27.85	30.18	32.78	4.2%
Municipal Solid Waste 3/	26.07	26.08	26.09	26.10	26.11	26.36	26.37	26.38	26.41	26.44	26.49	1.2%
Wood and Other Biomass 4/	30.01	30.06	29.92	31.19	31.93	32.35	33.32	34.33	34.51	36.38	37.35	6.5%
Solar Thermal	0.86	0.87	0.88	0.89	0.91	0.92	0.94	0.95	0.96	0.98	0.99	2.9%
Solar Photovoltaic 5/	0.52	0.56	0.61	0.65	0.70	0.74	0.78	0.83	0.87	0.92	0.96	30.0%
Wind	27.34	29.55	29.82	30.09	30.77	31.61	32.32	33.03	33.36	33.74	34.52	5.5%
Total	401.44	404.88	406.20	408.71	412.08	415.61	419.09	422.01	424.93	429.68	434.19	1.3%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.10	0.5%
Geothermal 2/	0.39	0.42	0.46	0.49	0.55	0.61	0.66	0.70	0.77	0.84	0.92	5.6%
Municipal Solid Waste 3/	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	1.2%
Wood and Other Biomass 4/	0.38	0.38	0.38	0.39	0.40	0.40	0.41	0.42	0.42	0.43	0.43	7.3%
Solar Thermal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.9%
Solar Photovoltaic 5/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	30.0%
Wind	0.28	0.30	0.31	0.31	0.32	0.32	0.33	0.34	0.34	0.35	0.35	5.5%
Total	4.51	4.57	4.61	4.65	4.72	4.80	4.88	4.93	5.00	5.09	5.19	1.8%
End-Use Generators 6/												
Generating Capacity (gigawatts)												
Conventional Hydropower 7/	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.0%
Wood and Other Biomass 4/	5.55	5.60	5.73	5.88	6.04	6.18	6.32	6.44	6.56	6.67	6.75	2.3%
Solar Photovoltaic 5/	0.44	0.47	0.54	0.62	0.69	0.80	0.91	1.08	1.30	1.53	1.80	17.0%
Total	7.30	7.37	7.57	7.79	8.03	8.27	8.53	8.82	9.15	9.50	9.85	2.7%
Electricity Generation (billion kilowatthours)												
Conventional Hydropower 7/	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24	0.8%
Wood and Other Biomass 4/	36.19	36.44	37.22	38.08	39.04	39.86	40.67	41.35	42.07	42.69	43.21	2.1%
Solar Photovoltaic 5/	0.95	1.01	1.15	1.31	1.47	1.68	1.93	2.28	2.72	3.20	3.74	16.9%
Total	45.20	45.50	46.43	47.44	48.56	49.60	50.66	51.69	52.84	53.94	55.00	2.0%
Energy Consumption (quadrillion Btu)												
Conventional Hydropower 7/	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.0%

**Table 89. Renewable Energy Generation by Fuel United States**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0%
Wood and Other Biomass 4/	0.53	0.53	0.54	0.55	0.57	0.58	0.59	0.60	0.60	0.61	0.62	1.8%
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.64	0.64	0.65	0.66	0.67	0.68	0.69	0.70	0.71	0.72	0.73	1.5%

**Table 89. Renewable Energy Generation by Fuel United States**

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments 1989-2002). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

7/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 generation: EIA, Annual Energy Review 2003, DOE/EIA-0384(2003) (Washington, DC, September 2004). Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.