

Table 60. Electric Power Projections for EMM Region  
East Central Area Reliability Coordination Agreement

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	84.34	84.34	84.33	84.17	83.59	82.17	81.85	81.85	81.32	81.32	81.32	81.32	81.32
Other Fossil Steam 2/	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.81	3.81	3.81	3.81	3.81
Combined Cycle	4.24	8.72	11.97	12.95	12.95	12.95	12.95	12.95	12.91	12.91	13.96	14.60	15.67
Combustion Turbine/Diesel	13.84	19.59	21.22	21.22	21.14	21.14	21.11	21.08	18.97	19.21	19.83	19.93	20.20
Nuclear Power	7.68	7.69	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72
Pumped Storage/Other 3/	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36
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/	1.72	1.73	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.92	1.95	2.01
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 Capacity	119.01	129.25	134.27	135.09	134.43	133.01	132.67	132.63	129.94	130.18	131.92	132.70	134.09
<b>Cumulative Planned Additions 6/</b>													
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	3.25	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23
Combustion Turbine/Diesel	0.00	0.00	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94
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	0.07	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	5.26	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24
<b>Cumulative Unplanned Additions 6/</b>													
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	1.06	1.70	2.77
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.86	0.96	1.23
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	0.07	0.11	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 Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	1.99	2.76	4.16
Cumulative Total Additions	0.00	0.00	5.26	6.24	6.24	6.24	6.24	6.24	6.24	6.48	8.22	9.00	10.40
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.01	0.17	0.75	2.17	2.48	2.48	3.01	3.01	3.01	3.01	3.01
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02
Combined Cycle	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
Combustion Turbine/Diesel	0.00	0.00	0.31	0.31	0.39	0.39	0.42	0.45	2.56	2.56	2.56	2.56	2.56
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	0.32	0.48	1.14	2.56	2.90	2.93	5.63	5.63	5.63	5.63	5.63

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	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.89	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Petroleum	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
Natural Gas	0.16	0.16	0.16	0.16	0.17	0.18	0.18	0.19	0.19	0.20	0.21	0.21	0.22
Other Gaseous Fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
Renewable Sources 4/	0.11	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.18
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
Total	1.26	1.29	1.30	1.31	1.32	1.33	1.34	1.35	1.36	1.38	1.39	1.40	1.42
Other End Use Generators	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
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	158.95	169.00	172.72	176.58	178.82	181.14	184.04	187.65	190.27	193.27	195.90	198.86	200.68
Commercial/Other	149.12	150.48	152.21	158.18	162.62	166.55	169.94	172.88	175.45	177.90	180.28	182.51	184.86
Industrial	194.63	199.02	200.85	206.31	211.85	216.40	220.87	224.42	227.66	231.31	235.41	239.28	243.30
Transportation	3.06	3.07	3.22	3.30	3.38	3.44	3.49	3.54	3.59	3.65	3.70	3.76	3.82
Total Sales	505.77	521.57	529.01	544.39	556.67	567.53	578.34	588.49	596.97	606.13	615.30	624.41	632.66
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.07	0.01	9.67	10.81	9.34	9.49	9.34	8.72	9.95	10.10	10.64	9.91	9.75
Gross International Exports	2.18	0.93	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Gross Interregional Electricity Imports	6.01	9.62	8.72	10.58	7.56	8.18	8.12	7.70	9.30	8.86	8.86	8.93	7.99
Gross Interregional Electricity Exports	44.38	57.62	65.80	67.30	62.69	61.47	63.80	67.32	69.24	67.27	70.62	71.62	71.35
Purchases from Combined Heat and Power 8	1.39	1.54	1.62	1.79	1.97	2.13	2.26	2.38	2.54	2.73	2.91	3.09	3.27
Electric Power Sector Generation for Customers	556.54	568.31	610.84	625.25	637.70	646.74	660.34	675.27	682.77	690.34	702.32	713.07	722.09
Total Net Energy for Load	517.46	520.92	565.01	581.09	593.83	605.03	616.21	626.72	635.28	644.72	654.07	663.34	671.70
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	483.11	491.98	517.24	517.65	531.82	540.02	555.29	562.39	574.58	578.66	582.43	585.62	587.51
Petroleum	1.91	2.18	0.89	0.87	0.66	0.66	0.61	0.67	0.56	0.54	0.62	0.66	0.69
Natural Gas	15.83	21.55	40.92	54.97	52.76	53.50	51.58	59.36	53.72	56.52	64.25	71.58	78.53
Nuclear	55.35	55.55	55.23	55.91	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13
Pumped Storage/Other 3/	-1.63	-1.48	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38
Renewable Sources 4/	5.92	5.41	7.45	6.94	7.48	7.61	7.93	7.93	8.18	8.88	9.29	9.48	9.63
Total Generation	560.49	575.19	619.36	633.96	646.48	655.54	669.17	684.10	690.79	698.36	710.35	721.09	730.11
Sales to Customers	556.54	568.31	610.84	625.25	637.70	646.74	660.34	675.27	682.77	690.34	702.32	713.07	722.09
Generation for Own Use	3.95	6.88	8.52	8.71	8.78	8.80	8.83	8.83	8.02	8.02	8.02	8.02	8.02
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
<b>Combined Heat and Power</b>													
Coal	4.67	4.61	4.56	4.56	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57
Petroleum	0.25	0.23	0.24	0.24	0.38	0.41	0.43	0.46	0.50	0.54	0.58	0.60	0.63
Natural Gas	1.45	1.48	1.47	1.51	1.57	1.64	1.69	1.75	1.83	1.91	1.99	2.06	2.12
Other Gaseous Fuels	0.17	0.22	0.27	0.27	0.36	0.38	0.38	0.39	0.41	0.42	0.43	0.45	0.46
Renewable Sources 4/	4.30	4.49	4.59	4.84	5.09	5.25	5.37	5.47	5.62	5.80	5.99	6.20	6.41
Other	0.84	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Total	11.68	12.14	12.24	12.53	13.07	13.36	13.55	13.76	14.04	14.36	14.68	14.99	15.30
Other End Use Generators	0.49	0.63	0.63	0.64	0.65	0.66	0.68	0.69	0.71	0.74	0.74	0.74	0.75

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	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	1.39	1.54	1.62	1.79	1.97	2.13	2.26	2.38	2.54	2.73	2.91	3.09	3.27
Generation for Own Use	10.78	11.23	11.26	11.38	11.75	11.89	11.97	12.07	12.21	12.37	12.50	12.64	12.78
Total Electricity Generation	572.66	587.96	632.23	647.13	660.20	669.56	683.40	698.56	705.55	713.46	725.76	736.82	746.16
End-Use Prices (2002 cents per kilowatthour)													
Residential	7.5	7.4	7.4	7.2	7.0	7.3	7.1	7.0	6.9	6.9	7.0	7.1	7.2
Commercial	7.0	6.8	6.7	6.6	6.4	6.2	6.1	6.0	6.0	6.1	6.2	6.4	6.5
Industrial	4.3	4.3	4.5	4.4	4.4	4.3	4.2	4.3	4.3	4.3	4.3	4.5	4.5
Transportation	6.1	5.9	6.4	6.2	6.1	5.8	5.7	5.6	5.6	5.6	5.7	5.8	5.9
All Sectors Average	6.1	6.0	6.1	6.0	5.8	5.8	5.7	5.6	5.7	5.7	5.7	5.9	6.0
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.0	3.9	4.0	3.9	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.8	3.9
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	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Fuel Consumption (quadrillion Btu) 9/													
Coal	4.98	5.07	5.28	5.27	5.41	5.49	5.65	5.73	5.87	5.92	5.96	6.00	6.03
Natural Gas	0.17	0.22	0.41	0.53	0.51	0.52	0.50	0.56	0.46	0.48	0.54	0.60	0.64
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	5.17	5.31	5.70	5.81	5.93	6.02	6.16	6.30	6.33	6.41	6.51	6.61	6.68
Emissions (million tons) 10/													
Total Carbon	149.65	154.19	155.45	156.99	160.48	162.90	167.04	170.26	172.56	174.41	176.61	178.75	180.23
Carbon Dioxide	548.71	565.38	569.98	575.61	588.42	597.29	612.48	624.29	632.72	639.49	647.57	655.40	660.86
Sulfur Dioxide	3.36	3.22	3.22	3.33	3.24	3.08	3.18	3.24	3.09	3.11	3.15	2.97	2.87
Nitrogen Oxide	1.19	1.10	0.86	0.67	0.68	0.68	0.70	0.72	0.73	0.73	0.73	0.73	0.73

Table 60. Electric Power Projections for EMM Region  
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	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	-0.2%
Other Fossil Steam 2/	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	0.0%
Combined Cycle	17.12	18.36	19.28	20.80	22.42	24.16	25.71	27.66	29.13	31.03	32.03	33.97	6.1%
Combustion Turbine/Diesel	20.20	20.47	20.47	20.53	20.73	21.13	21.62	22.11	22.77	23.39	24.02	24.69	1.0%
Nuclear Power	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	0.0%
Pumped Storage/Other 3/	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	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	0.00	N/A
Renewable Sources 4/	2.01	2.06	2.15	2.20	2.30	2.39	2.42	2.42	2.42	2.42	2.42	2.42	1.5%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	N/A
Total Capacity	135.54	137.11	138.12	139.74	141.67	143.88	145.96	148.40	150.57	153.09	154.72	157.33	0.9%
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	N/A
Combustion Turbine/Diesel	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	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	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	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	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	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	0.00	N/A
Total Planned Additions	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	N/A
<b>Cumulative Unplanned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	4.21	5.46	6.37	7.89	9.52	11.25	12.80	14.75	16.23	18.13	19.12	21.07	N/A
Combustion Turbine/Diesel	1.23	1.50	1.50	1.56	1.76	2.15	2.65	3.14	3.80	4.41	5.05	5.72	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	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	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	0.00	N/A
Renewable Sources 4/	0.16	0.21	0.31	0.35	0.46	0.55	0.57	0.57	0.57	0.57	0.57	0.57	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	N/A
Total Unplanned Additions	5.60	7.17	8.18	9.80	11.74	13.95	16.03	18.46	20.64	23.15	24.78	27.40	N/A
Cumulative Total Additions	11.84	13.41	14.42	16.04	17.98	20.19	22.27	24.70	26.87	29.39	31.02	33.64	N/A
<b>Cumulative Retirements 7/</b>													
Coal Steam	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	N/A
Other Fossil Steam 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	N/A
Combined Cycle	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	N/A
Combustion Turbine/Diesel	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	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	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	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	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	0.00	N/A
Total	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	N/A

Table 60. Electric Power Projections for EMM Region  
East Central Area Reliability Coordination Agreement

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.0%
Petroleum	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	3.8%
Natural Gas	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.28	0.28	0.29	0.30	0.31	3.0%
Other Gaseous Fuels	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	1.8%
Renewable Sources 4/	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.21	0.22	0.22	0.23	0.23	3.0%
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	N/A
Total	1.43	1.44	1.45	1.46	1.48	1.49	1.50	1.52	1.53	1.54	1.56	1.57	0.8%
Other End Use Generators	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	3.1%
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	203.17	205.74	208.67	210.67	213.32	216.24	219.59	221.57	224.34	227.27	230.75	232.95	1.4%
Commercial/Other	187.29	189.76	192.09	194.74	197.58	200.66	203.70	206.85	210.12	213.69	217.46	221.52	1.7%
Industrial	246.87	250.61	254.78	259.44	263.98	267.45	271.45	274.95	279.37	284.04	288.65	294.04	1.7%
Transportation	3.88	3.94	3.99	4.05	4.12	4.19	4.26	4.32	4.39	4.46	4.54	4.61	1.8%
Total Sales	641.22	650.05	659.54	668.90	679.01	688.53	698.99	707.71	718.22	729.46	741.39	753.11	1.6%
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	8.89	7.49	5.76	4.18	2.32	1.57	1.38	0.99	0.50	0.22	0.01	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	0.04	-12.5%
Gross Interregional Electricity Imports	8.22	8.05	6.94	6.46	5.76	5.07	4.86	4.73	5.48	5.76	4.75	5.23	-2.6%
Gross Interregional Electricity Exports	71.54	72.32	69.91	69.85	68.61	69.12	67.64	62.52	55.05	52.83	49.20	49.26	-0.7%
Purchases from Combined Heat and Power 8	3.43	3.56	3.68	3.82	3.98	4.13	4.28	4.39	4.51	4.63	4.76	4.89	5.1%
Electric Power Sector Generation for Customers	731.35	742.51	752.86	764.63	776.46	788.33	798.17	802.68	805.93	815.46	825.55	837.40	1.7%
Total Net Energy for Load	680.31	689.25	699.29	709.19	719.87	729.95	741.01	750.23	761.32	773.21	785.83	798.22	1.9%
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	588.71	590.84	592.89	594.05	594.09	594.30	594.50	594.40	593.98	594.33	595.17	595.81	0.8%
Petroleum	0.81	0.93	0.89	0.91	0.92	0.90	1.01	1.10	1.17	1.14	1.18	1.18	-2.6%
Natural Gas	86.43	95.12	103.09	113.50	125.19	136.71	146.21	151.06	154.78	163.98	173.19	184.50	9.8%
Nuclear	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	0.0%
Pumped Storage/Other 3/	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	2.1%
Renewable Sources 4/	9.67	9.89	10.25	10.43	10.53	10.68	10.73	10.39	10.26	10.28	10.27	10.17	2.8%
Total Generation	739.38	750.54	760.88	772.65	784.49	796.36	806.20	810.71	813.95	823.48	833.58	845.43	1.7%
Sales to Customers	731.35	742.51	752.86	764.63	776.46	788.33	798.17	802.68	805.93	815.46	825.55	837.40	1.7%
Generation for Own Use	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	0.7%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	N/A
<b>Combined Heat and Power</b>													
Coal	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.58	4.58	0.0%
Petroleum	0.65	0.66	0.66	0.67	0.71	0.74	0.78	0.78	0.78	0.79	0.79	0.79	5.6%
Natural Gas	2.19	2.25	2.32	2.40	2.49	2.58	2.68	2.76	2.86	2.95	3.06	3.17	3.4%
Other Gaseous Fuels	0.47	0.48	0.49	0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	4.3%
Renewable Sources 4/	6.60	6.75	6.90	7.06	7.21	7.34	7.46	7.59	7.72	7.86	7.99	8.14	2.6%
Other	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	0.0%
Total	15.59	15.82	16.06	16.32	16.61	16.87	17.15	17.37	17.61	17.85	18.11	18.38	1.8%
Other End Use Generators	0.75	0.75	0.75	0.76	0.77	0.78	0.80	0.83	0.87	0.90	0.94	0.98	1.9%

Table 60. Electric Power Projections for EMM Region  
East Central Area Reliability Coordination Agreement

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	3.43	3.56	3.68	3.82	3.98	4.13	4.28	4.39	4.51	4.63	4.76	4.89	5.1%
Generation for Own Use	12.91	13.02	13.14	13.26	13.40	13.53	13.67	13.81	13.96	14.12	14.29	14.47	1.1%
Total Electricity Generation	755.71	767.11	777.70	789.73	801.87	814.01	824.15	828.91	832.44	842.25	852.64	864.80	1.7%
End-Use Prices (2002 cents per kilowatthour)													
Residential	7.2	7.3	7.4	7.4	7.4	7.3	7.3	7.3	7.3	7.2	7.3	7.3	0.0%
Commercial	6.6	6.7	6.9	6.9	6.9	6.8	6.9	6.9	6.8	6.8	6.9	6.9	0.0%
Industrial	4.6	4.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.8	4.9	4.9	0.6%
Transportation	5.9	6.0	6.1	6.1	6.1	6.0	6.0	6.0	6.0	5.9	6.0	6.0	0.0%
All Sectors Average	6.0	6.1	6.2	6.3	6.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0.2%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.0	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.2	4.2	0.4%
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	0.6%
Distribution	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	-0.5%
Fuel Consumption (quadrillion Btu) 9/													
Coal	6.04	6.07	6.09	6.11	6.11	6.11	6.11	6.11	6.10	6.11	6.12	6.13	0.8%
Natural Gas	0.69	0.75	0.80	0.87	0.95	1.02	1.08	1.11	1.12	1.18	1.25	1.32	8.2%
Oil	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-2.4%
Total	6.74	6.83	6.91	6.99	7.07	7.14	7.21	7.23	7.24	7.30	7.38	7.46	1.5%
Emissions (million tons) 10/													
Total Carbon	181.49	183.18	185.04	186.44	187.63	189.02	190.18	190.48	190.74	191.78	193.15	194.61	1.0%
Carbon Dioxide	665.48	671.65	678.48	683.62	687.97	693.07	697.31	698.42	699.38	703.20	708.20	713.55	1.0%
Sulfur Dioxide	2.82	2.74	2.62	2.67	2.70	2.67	2.64	2.68	2.69	2.71	2.71	2.74	-0.7%
Nitrogen Oxide	0.73	0.74	0.74	0.75	0.74	0.74	0.74	0.73	0.73	0.73	0.73	0.73	-1.8%

Table 60. Electric Power Projections for EMM 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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 61. Electric Power Projections for EMM Region  
Electric Reliability Council of Texas

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b> (gigawatts)													
Coal Steam	15.24	15.24	15.24	15.24	15.24	15.24	15.24	15.24	15.59	15.59	15.59	15.59	15.59
Other Fossil Steam 2/	30.08	30.01	29.72	29.48	28.95	27.99	25.73	24.59	21.33	20.90	20.81	19.77	19.67
Combined Cycle	11.15	16.05	19.10	19.78	19.78	19.78	19.78	19.78	21.09	22.38	23.02	23.65	24.83
Combustion Turbine/Diesel	6.02	6.58	6.16	6.16	6.14	6.14	5.79	5.79	6.20	7.24	7.60	8.27	8.55
Nuclear Power	4.83	4.83	4.87	4.87	4.87	4.87	4.87	4.87	4.87	4.95	4.95	4.95	4.95
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/	1.52	1.81	2.06	2.08	2.08	2.08	2.08	2.09	2.12	2.18	2.20	2.21	2.21
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.15	0.23	0.31	0.38	0.45
Total Capacity	68.84	74.52	77.14	77.60	77.06	76.11	73.49	72.43	71.36	73.46	74.47	74.81	76.23
<b>Cumulative Planned Additions 6/</b>													
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	3.05	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73
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	0.25	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.28	0.28	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	3.29	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.01	4.01
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.35	0.35	0.35	0.35
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	1.31	2.60	3.24	3.87	5.05
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	1.46	1.82	2.49	2.77
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	0.04	0.09	0.12	0.12	0.12
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.15	0.23	0.31	0.38	0.45
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	2.27	4.73	5.83	7.20	8.73
Cumulative Total Additions	0.00	0.00	3.29	4.00	4.00	4.00	4.00	4.08	6.28	8.73	9.84	11.21	12.74
<b>Cumulative Retirements 7/</b>													
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	0.25	0.78	1.73	4.00	5.13	8.39	8.82	8.92	9.96	10.06
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	0.01	0.01	0.37	0.37	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	0.00	0.25	0.79	1.74	4.36	5.50	8.77	9.20	9.30	10.34	10.44



Table 61. Electric Power Projections for EMM Region  
Electric Reliability Council of Texas

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	5.14	5.21	5.26	5.38	5.59	5.79	5.94	6.12	6.34	6.57	6.78	6.99	7.16
Other Gaseous Fuels	0.00	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
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
Total	5.47	5.55	5.60	5.72	5.93	6.13	6.28	6.46	6.68	6.90	7.12	7.32	7.50
Other End Use Generators	0.00	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>Electricity Demand (billion kilowatthours)</b>													
Residential	104.01	107.43	108.93	110.32	111.93	113.84	115.54	117.60	119.25	121.67	123.85	125.94	127.38
Commercial/Other	86.58	86.28	86.11	89.23	92.71	95.96	98.97	101.73	104.34	107.15	109.82	111.82	113.73
Industrial	76.96	78.83	76.37	78.41	79.61	81.82	83.64	84.81	85.59	86.84	88.36	89.76	91.44
Transportation	1.37	1.39	1.41	1.45	1.49	1.53	1.56	1.60	1.63	1.67	1.71	1.75	1.79
Total Sales	268.92	273.93	272.81	279.40	285.75	293.15	299.71	305.74	310.81	317.33	323.73	329.27	334.32
<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	0.03	0.39	0.42	0.45	0.49	0.53	0.57	0.62	0.67	0.67	0.67	0.67
Gross Interregional Electricity Imports	4.20	4.94	6.75	6.58	6.57	6.57	6.57	6.60	5.39	4.60	4.23	3.34	2.89
Gross Interregional Electricity Exports	1.92	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.45	1.29	1.13	0.97
Purchases from Combined Heat and Power 8	6.65	6.84	7.05	7.51	7.48	8.20	8.81	9.46	10.24	11.04	11.78	12.48	13.09
Electric Power Sector Generation for Custom	266.32	268.19	277.63	284.51	291.07	298.00	304.19	309.81	315.36	322.04	328.07	333.71	338.53
Total Net Energy for Load	275.25	278.34	289.45	296.57	303.06	310.68	317.43	323.70	328.77	335.56	342.12	347.72	352.87
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	102.26	107.49	104.66	104.86	107.97	110.60	112.77	112.88	115.43	115.43	115.40	115.38	115.35
Petroleum	2.53	1.48	1.19	0.63	0.80	0.84	0.81	0.91	0.42	0.05	0.39	0.63	0.68
Natural Gas	125.73	126.10	146.37	146.95	149.76	153.85	157.74	163.33	166.32	176.78	177.83	183.07	187.68
Nuclear	38.16	35.62	30.55	36.64	36.95	37.10	37.25	37.40	37.54	33.93	38.46	38.61	38.76
Pumped Storage/Other 3/	0.01	0.41	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/	2.11	2.67	5.54	6.13	6.28	6.30	6.31	6.00	6.34	6.53	6.68	6.71	6.75
Total Generation	270.81	273.77	288.32	295.20	301.76	308.69	314.88	320.50	326.05	332.73	338.76	344.40	349.22
Sales to Customers	266.32	268.19	277.63	284.51	291.07	298.00	304.19	309.81	315.36	322.04	328.07	333.71	338.53
Generation for Own Use	4.49	5.58	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.69
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.10	0.13	0.16	0.20
<b>Combined Heat and Power</b>													
Coal	2.58	2.55	2.52	2.52	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53
Petroleum	0.10	0.09	0.10	0.10	0.15	0.16	0.17	0.18	0.20	0.21	0.23	0.24	0.25
Natural Gas	29.69	30.36	30.13	30.98	32.17	33.64	34.73	36.01	37.61	39.26	40.80	42.29	43.58
Other Gaseous Fuels	0.07	0.09	0.11	0.11	0.14	0.15	0.15	0.15	0.16	0.16	0.17	0.17	0.18
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	0.56	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Total	33.00	33.83	33.59	34.44	35.73	37.22	38.32	39.62	41.23	42.91	44.47	45.97	47.28
Other End Use Generators	0.00	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 61. Electric Power Projections for EMM Region  
Electric Reliability Council of Texas

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	6.65	6.84	7.05	7.51	7.48	8.20	8.81	9.46	10.24	11.04	11.78	12.48	13.09
Generation for Own Use	26.35	26.99	26.54	26.94	28.25	29.02	29.51	30.16	30.99	31.87	32.69	33.49	34.19
Total Electricity Generation	303.81	307.60	321.91	329.64	337.48	345.91	353.20	360.16	367.35	375.74	383.37	390.53	396.69
End-Use Prices (2002 cents per kilowatthour)													
Residential	9.1	8.2	8.1	7.9	7.7	7.7	8.0	8.1	8.2	8.0	8.1	8.4	8.5
Commercial	8.1	7.2	7.7	7.4	7.3	7.2	7.2	7.4	7.5	7.3	7.5	7.9	7.8
Industrial	5.5	4.7	4.9	4.7	4.7	4.7	4.8	5.0	5.1	5.0	5.1	5.4	5.4
Transportation	7.2	7.1	7.1	6.8	6.7	6.6	6.5	6.7	6.8	6.7	6.9	7.2	7.3
All Sectors Average	7.7	6.8	7.1	6.8	6.7	6.7	6.8	7.0	7.1	6.9	7.0	7.4	7.4
Prices by Service Category (2002 cents per kilowatthour)													
Generation	5.1	4.2	4.5	4.3	4.2	4.2	4.4	4.5	4.6	4.5	4.6	5.0	5.0
Transmission	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Distribution	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.7	1.7
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.10	1.16	1.10	1.10	1.14	1.17	1.19	1.19	1.21	1.21	1.21	1.21	1.21
Natural Gas	1.24	1.12	1.21	1.21	1.23	1.27	1.31	1.36	1.37	1.43	1.43	1.46	1.48
Oil	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01
Total	2.37	2.30	2.32	2.32	2.38	2.45	2.51	2.56	2.58	2.65	2.65	2.68	2.70
Emissions (million tons) 10/													
Total Carbon	53.14	52.37	51.40	51.28	52.69	54.12	55.36	56.26	56.81	57.81	57.84	58.41	58.71
Carbon Dioxide	194.84	192.01	188.45	188.03	193.20	198.46	203.00	206.28	208.32	211.96	212.08	214.15	215.26
Sulfur Dioxide	0.33	0.27	0.25	0.27	0.25	0.25	0.25	0.29	0.25	0.24	0.24	0.24	0.24
Nitrogen Oxide	0.26	0.24	0.19	0.19	0.19	0.20	0.20	0.21	0.20	0.20	0.20	0.20	0.20

Table 61. Electric Power Projections for EMM Region  
Electric Reliability Council of Texas

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	15.59	15.59	15.59	15.59	15.59	15.59	15.59	15.59	15.59	16.65	17.20	18.19	0.8%
Other Fossil Steam 2/	19.67	19.51	19.51	19.51	19.11	18.97	18.75	18.17	17.93	17.70	17.57	16.77	-2.5%
Combined Cycle	25.68	26.10	26.53	27.74	27.74	28.46	29.17	30.29	31.10	31.34	31.50	31.97	3.0%
Combustion Turbine/Diesel	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.54	8.54	1.1%
Nuclear Power	4.95	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	0.3%
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	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	0.00	N/A
Renewable Sources 4/	2.21	2.21	2.21	2.22	2.22	2.25	2.28	2.31	2.31	2.32	2.32	2.36	1.2%
Distributed Generation 5/	0.52	0.59	0.65	0.71	0.76	0.81	0.86	0.90	0.95	1.00	1.04	1.09	N/A
Total Capacity	77.16	77.73	78.22	79.49	79.15	79.81	80.38	81.00	81.62	82.74	83.35	84.10	0.5%
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	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	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	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	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	0.00	N/A
Renewable Sources 4/	0.28	0.28	0.28	0.29	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	0.00	N/A
Total Planned Additions	4.01	4.01	4.01	4.02	4.02	4.02	4.02	4.02	4.03	4.03	4.03	4.03	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	1.41	1.96	2.94	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	0.00	N/A
Combined Cycle	5.90	6.32	6.75	7.96	7.96	8.68	9.39	10.51	11.32	11.56	11.72	12.19	N/A
Combustion Turbine/Diesel	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	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	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	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	0.00	N/A
Renewable Sources 4/	0.12	0.12	0.12	0.12	0.12	0.14	0.18	0.20	0.20	0.20	0.20	0.25	N/A
Distributed Generation 5/	0.52	0.59	0.65	0.71	0.76	0.81	0.86	0.90	0.95	1.00	1.04	1.09	N/A
Total Unplanned Additions	9.66	10.14	10.63	11.89	11.95	12.75	13.54	14.73	15.59	16.93	17.68	19.23	N/A
Cumulative Total Additions	13.67	14.15	14.64	15.91	15.97	16.77	17.56	18.76	19.62	20.96	21.71	23.26	N/A
<b>Cumulative Retirements 7/</b>													
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	N/A
Other Fossil Steam 3/	10.06	10.22	10.22	10.22	10.61	10.76	10.98	11.55	11.79	12.02	12.15	12.95	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	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	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	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	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	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	0.00	N/A
Total	10.44	10.60	10.60	10.60	10.99	11.13	11.35	11.93	12.17	12.40	12.54	13.33	N/A

Table 61. Electric Power Projections for EMM Region  
Electric Reliability Council of Texas

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.0%
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Natural Gas	7.35	7.53	7.74	7.95	8.21	8.47	8.75	9.00	9.27	9.55	9.86	10.19	3.0%
Other Gaseous Fuels	0.00	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	0.00	N/A
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	N/A
Total	7.68	7.87	8.08	8.29	8.54	8.80	9.09	9.34	9.61	9.89	10.19	10.52	2.8%
Other End Use Generators	0.00	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>Electricity Demand (billion kilowatthours)</b>													
Residential	129.28	131.13	133.26	135.12	137.11	139.32	141.62	143.04	145.09	147.41	150.00	151.76	1.5%
Commercial/Other	115.46	116.80	117.82	119.13	120.29	121.57	122.71	123.95	125.22	126.67	128.07	129.58	1.8%
Industrial	92.79	94.19	95.51	96.75	97.10	97.67	98.49	99.64	101.12	102.84	104.43	106.30	1.3%
Transportation	1.82	1.86	1.91	1.95	1.99	2.04	2.08	2.13	2.17	2.22	2.27	2.32	2.2%
Total Sales	339.35	343.99	348.50	352.94	356.49	360.61	364.90	368.77	373.60	379.15	384.76	389.97	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	0.00	N/A
Gross International Exports	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	13.9%
Gross Interregional Electricity Imports	2.92	2.76	2.57	2.25	2.18	2.17	3.37	3.55	3.40	3.53	3.04	3.20	-1.9%
Gross Interregional Electricity Exports	0.81	0.65	0.49	0.39	0.23	0.10	0.01	0.01	0.00	0.00	0.01	0.01	-20.1%
Purchases from Combined Heat and Power 8	13.72	14.32	15.01	15.70	16.56	17.44	18.37	19.16	19.99	20.85	21.79	22.78	5.4%
Electric Power Sector Generation for Custom	342.41	346.43	350.48	354.61	357.36	360.66	362.93	365.98	370.33	375.17	380.59	384.87	1.6%
Total Net Energy for Load	357.56	362.19	366.89	371.50	375.20	379.50	383.99	388.01	393.05	398.87	404.75	410.17	1.7%
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	115.35	115.39	115.31	115.34	115.34	115.34	115.39	115.40	115.33	123.22	127.30	134.75	1.0%
Petroleum	1.07	2.44	2.15	0.89	0.67	0.65	0.73	1.00	0.81	0.65	0.70	0.71	-3.2%
Natural Gas	191.01	191.71	195.84	201.22	204.02	207.12	209.15	211.71	216.16	213.25	214.53	211.27	2.3%
Nuclear	38.91	40.95	41.11	41.27	41.43	41.54	41.54	41.54	41.54	41.54	41.54	41.54	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	0.00	N/A
Renewable Sources 4/	6.76	6.63	6.75	6.58	6.59	6.70	6.82	7.02	7.17	7.21	7.21	7.30	4.5%
Total Generation	353.10	357.12	361.17	365.30	368.05	371.35	373.62	376.67	381.02	385.86	391.28	395.56	1.6%
Sales to Customers	342.41	346.43	350.48	354.61	357.36	360.66	362.93	365.98	370.33	375.17	380.59	384.87	1.6%
Generation for Own Use	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.69	2.9%
Distributed Generation 5/	0.23	0.26	0.28	0.31	0.33	0.36	0.38	0.40	0.42	0.44	0.45	0.48	N/A
<b>Combined Heat and Power</b>													
Coal	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	0.0%
Petroleum	0.25	0.26	0.26	0.26	0.28	0.29	0.31	0.31	0.31	0.31	0.31	0.31	5.6%
Natural Gas	44.91	46.24	47.73	49.27	51.08	52.95	54.96	56.78	58.70	60.67	62.85	65.17	3.4%
Other Gaseous Fuels	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.22	0.23	0.23	4.3%
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	0.00	N/A
Other	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.0%
Total	48.62	49.96	51.46	53.01	54.83	56.72	58.75	60.57	62.50	64.48	66.66	68.98	3.1%
Other End Use Generators	0.00	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 61. Electric Power Projections for EMM Region  
Electric Reliability Council of Texas

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	13.72	14.32	15.01	15.70	16.56	17.44	18.37	19.16	19.99	20.85	21.79	22.78	5.4%
Generation for Own Use	34.90	35.64	36.45	37.30	38.27	39.29	40.38	41.42	42.51	43.63	44.87	46.20	2.4%
Total Electricity Generation	401.95	407.34	412.91	418.61	423.22	428.43	432.75	437.64	443.94	450.77	458.40	465.02	1.8%
End-Use Prices (2002 cents per kilowatthour)													
Residential	8.5	8.7	8.8	8.6	8.8	8.8	9.0	9.1	9.1	9.0	9.3	9.4	0.6%
Commercial	8.0	8.2	8.4	8.1	8.5	8.6	8.8	9.0	9.1	9.0	9.3	9.5	1.2%
Industrial	5.5	5.8	5.9	5.7	5.9	5.9	6.1	6.3	6.3	6.2	6.4	6.5	1.4%
Transportation	7.3	7.5	7.6	7.4	7.7	7.7	7.8	8.0	8.0	7.9	8.1	8.2	0.6%
All Sectors Average	7.5	7.7	7.8	7.6	7.9	7.9	8.1	8.3	8.3	8.3	8.5	8.6	1.1%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	5.1	5.4	5.5	5.3	5.6	5.7	5.8	6.1	6.1	6.0	6.3	6.4	1.9%
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	0.6%
Distribution	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	-1.1%
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.28	1.31	1.38	0.7%
Natural Gas	1.50	1.49	1.52	1.55	1.58	1.59	1.60	1.60	1.63	1.60	1.61	1.57	1.5%
Oil	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-3.8%
Total	2.72	2.73	2.75	2.77	2.79	2.81	2.82	2.82	2.85	2.88	2.93	2.96	1.1%
Emissions (million tons) 10/													
Total Carbon	59.01	59.29	59.68	59.86	60.23	60.47	60.59	60.70	61.06	62.46	63.62	64.85	0.9%
Carbon Dioxide	216.39	217.39	218.83	219.49	220.84	221.71	222.16	222.57	223.89	229.00	233.26	237.77	0.9%
Sulfur Dioxide	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.23	0.23	0.23	-0.8%
Nitrogen Oxide	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	-0.7%

Table 61. Electric Power Projections for EMM 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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 62. Electric Power Projections for EMM Region  
Mid-Atlantic Area Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b> (gigawatts)													
Coal Steam	20.20	20.09	19.89	20.42	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37
Other Fossil Steam 2/	8.36	8.36	8.36	8.36	8.36	8.36	8.36	8.36	8.36	8.33	8.33	8.33	8.33
Combined Cycle	5.80	9.37	12.97	13.70	13.70	13.70	13.70	13.70	13.70	13.97	14.30	14.30	14.57
Combustion Turbine/Diesel	9.93	11.18	11.77	11.91	11.91	11.91	11.91	11.91	11.78	12.76	13.67	14.14	14.91
Nuclear Power	13.02	13.04	13.14	13.30	13.30	13.41	13.41	13.41	13.43	13.43	13.43	13.43	13.43
Pumped Storage/Other 3/	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
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/	1.91	1.92	1.95	1.95	1.96	1.96	1.97	1.98	1.98	2.01	2.01	2.01	2.01
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.16	0.23	0.30	0.37
Total Capacity	60.53	65.27	69.39	70.96	70.91	71.02	71.03	71.04	71.01	72.33	73.64	74.18	75.29
<b>Cumulative Planned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	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	3.60	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32
Combustion Turbine/Diesel	0.00	0.00	0.59	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	0.04	0.04	0.04	0.04	0.06	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	4.22	5.62	5.62	5.63	5.64	5.65	5.65	5.65	5.65	5.65	5.65
<b>Cumulative Unplanned Additions 6/</b>													
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	0.27	0.60	0.60	0.87
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	1.52	2.75	3.22	3.99
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	0.02	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	0.08	0.16	0.23	0.30	0.37
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	1.96	3.60	4.14	5.25
Cumulative Total Additions	0.00	0.00	4.22	5.62	5.62	5.63	5.64	5.65	5.87	7.61	9.26	9.79	10.90
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.20	0.20	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03
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	0.27	0.67	0.99	0.99	0.99
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	0.20	0.20	0.24	0.25	0.25	0.25	0.52	0.94	1.27	1.27	1.27

Table 62. Electric Power Projections for EMM Region  
Mid-Atlantic Area Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</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	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
Natural Gas	0.53	0.54	0.54	0.55	0.57	0.60	0.61	0.63	0.65	0.68	0.70	0.72	0.74
Other Gaseous Fuels	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
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	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Total	0.79	0.81	0.81	0.83	0.85	0.88	0.89	0.91	0.94	0.96	0.99	1.01	1.03
Other End Use Generators	0.00	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>Electricity Demand (billion kilowatthours)</b>													
Residential	84.66	92.71	94.24	95.63	96.86	98.35	99.95	101.73	102.61	103.65	104.48	105.52	106.02
Commercial/Other	110.66	115.24	115.75	119.99	124.27	128.23	131.82	135.36	138.63	142.12	145.42	148.32	150.99
Industrial	48.35	49.59	49.02	50.30	51.37	52.28	53.17	53.83	54.56	55.35	56.23	57.07	58.01
Transportation	1.83	1.90	1.96	2.01	2.05	2.09	2.12	2.15	2.18	2.21	2.25	2.28	2.32
Total Sales	245.51	259.44	260.96	267.93	274.54	280.94	287.06	293.07	297.98	303.33	308.39	313.19	317.35
<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	15.85	30.61	34.69	33.00	32.81	32.89	34.28	33.83	33.02	32.11	31.61	31.94	31.54
Gross Interregional Electricity Exports	15.88	17.96	16.31	16.33	14.83	16.22	19.08	18.77	19.68	15.68	13.81	14.34	13.42
Purchases from Combined Heat and Power 8	1.10	1.20	1.26	1.35	1.46	1.64	1.78	1.94	2.13	2.34	2.54	2.70	2.85
Electric Power Sector Generation for Custom	250.43	256.97	259.95	268.99	274.41	282.17	289.86	295.92	302.41	304.56	308.16	313.32	316.85
Total Net Energy for Load	251.50	270.82	279.59	287.01	293.85	300.47	306.85	312.92	317.88	323.33	328.51	333.62	337.82
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	114.38	117.14	124.32	126.69	131.21	137.06	142.45	144.24	145.66	146.56	147.29	147.43	147.76
Petroleum	9.09	6.13	6.06	3.79	3.77	3.82	3.93	3.99	4.17	1.65	1.83	2.55	2.98
Natural Gas	19.26	25.33	20.15	25.38	25.28	26.24	28.22	32.28	36.92	40.63	43.10	47.39	50.12
Nuclear	104.68	105.49	104.98	107.67	108.19	109.11	109.16	109.21	109.37	109.37	109.37	109.37	109.37
Pumped Storage/Other 3/	-0.32	-0.30	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60
Renewable Sources 4/	6.57	7.46	10.33	11.37	11.93	11.95	12.16	12.26	12.35	12.30	12.40	12.42	12.45
Total Generation	253.66	261.26	265.26	274.30	279.77	287.58	295.32	301.38	307.87	309.92	313.40	318.56	322.08
Sales to Customers	250.43	256.97	259.95	268.99	274.41	282.17	289.86	295.92	302.41	304.56	308.16	313.32	316.85
Generation for Own Use	3.23	4.29	5.31	5.31	5.36	5.41	5.46	5.46	5.46	5.36	5.24	5.24	5.24
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.10	0.13	0.16
<b>Combined Heat and Power</b>													
Coal	0.85	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Petroleum	0.58	0.52	0.56	0.56	0.88	0.95	1.01	1.08	1.17	1.26	1.35	1.40	1.46
Natural Gas	3.26	3.34	3.31	3.40	3.53	3.70	3.82	3.96	4.13	4.31	4.48	4.65	4.79
Other Gaseous Fuels	0.40	0.51	0.62	0.62	0.84	0.89	0.89	0.91	0.94	0.98	1.01	1.04	1.07
Renewable Sources 4/	1.19	1.25	1.28	1.34	1.41	1.46	1.49	1.52	1.56	1.61	1.66	1.72	1.78
Other	0.27	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Total	6.55	6.82	6.96	7.12	7.85	8.18	8.39	8.65	8.99	9.35	9.70	10.00	10.28
Other End Use Generators	0.14	0.17	0.18	0.18	0.18	0.18	0.19	0.19	0.20	0.21	0.21	0.21	0.21



Table 62. Electric Power Projections for EMM Region  
Mid-Atlantic Area Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	1.10	1.20	1.26	1.35	1.46	1.64	1.78	1.94	2.13	2.34	2.54	2.70	2.85
Generation for Own Use	5.59	5.79	5.88	5.95	6.57	6.72	6.80	6.91	7.06	7.21	7.36	7.50	7.63
Total Electricity Generation	260.35	268.25	272.39	281.60	287.80	295.94	303.90	310.23	317.09	319.54	323.40	328.89	332.73
End-Use Prices (2002 cents per kilowatthour)													
Residential	9.4	9.5	8.7	8.1	8.1	7.6	7.4	7.3	7.6	7.7	8.0	8.3	8.4
Commercial	8.2	7.9	7.4	6.7	6.3	6.0	5.8	5.8	6.1	6.2	6.4	6.8	7.0
Industrial	6.7	6.2	6.3	5.9	5.6	5.5	5.4	5.5	5.5	5.3	5.3	5.5	5.6
Transportation	7.7	7.2	7.5	7.0	6.3	6.0	5.9	5.9	6.1	6.2	6.5	6.7	6.9
All Sectors Average	8.3	8.1	7.7	7.1	6.8	6.5	6.3	6.3	6.5	6.6	6.7	7.0	7.2
Prices by Service Category (2002 cents per kilowatthour)													
Generation	5.5	5.3	4.9	4.2	4.0	3.7	3.5	3.5	3.7	3.7	3.9	4.2	4.4
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	2.3
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.18	1.25	1.26	1.28	1.32	1.38	1.44	1.46	1.48	1.49	1.50	1.50	1.50
Natural Gas	0.19	0.24	0.21	0.25	0.25	0.26	0.27	0.30	0.32	0.35	0.36	0.39	0.41
Oil	0.11	0.07	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.03
Total	1.48	1.57	1.53	1.57	1.61	1.68	1.75	1.80	1.84	1.85	1.87	1.91	1.94
Emissions (million tons) 10/													
Total Carbon	39.98	40.46	39.84	40.58	41.76	43.60	45.48	46.59	47.33	47.52	48.02	48.76	49.27
Carbon Dioxide	146.61	148.35	146.10	148.78	153.14	159.86	166.77	170.82	173.53	174.23	176.08	178.79	180.66
Sulfur Dioxide	1.20	1.29	1.33	1.41	1.21	1.17	1.24	1.35	1.35	1.28	1.24	1.18	1.17
Nitrogen Oxide	0.26	0.24	0.23	0.20	0.21	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23

Table 62. Electric Power Projections for EMM Region  
Mid-Atlantic Area Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	20.37	20.37	20.37	20.37	21.06	21.36	21.90	22.57	22.87	23.13	23.67	24.37	0.8%
Other Fossil Steam 2/	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	0.0%
Combined Cycle	14.57	14.94	14.98	15.47	15.47	15.92	16.07	16.31	16.95	17.54	17.54	17.54	2.8%
Combustion Turbine/Diesel	15.64	15.93	15.93	16.02	16.02	16.02	16.02	16.09	16.21	16.47	16.47	16.47	1.7%
Nuclear Power	13.43	13.43	13.43	13.67	13.67	13.67	13.67	13.67	13.67	13.67	13.67	13.67	0.2%
Pumped Storage/Other 3/	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	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	0.00	N/A
Renewable Sources 4/	2.01	2.01	2.01	2.01	2.01	2.05	2.10	2.15	2.19	2.22	2.22	2.22	0.6%
Distributed Generation 5/	0.57	0.76	0.93	1.09	1.24	1.39	1.54	1.69	1.85	2.02	2.18	2.33	N/A
Total Capacity	76.22	77.07	77.28	78.25	79.10	80.03	80.92	82.11	83.38	84.69	85.38	86.23	1.2%
<b>Cumulative Planned Additions 6/</b>													
Coal Steam	0.52	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	0.00	N/A
Combined Cycle	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	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	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	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	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	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	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	0.00	N/A
Total Planned Additions	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.69	0.99	1.53	2.20	2.50	2.77	3.30	4.00	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	0.00	N/A
Combined Cycle	0.87	1.24	1.28	1.77	1.77	2.22	2.37	2.61	3.25	3.84	3.84	3.84	N/A
Combustion Turbine/Diesel	4.71	5.01	5.01	5.10	5.10	5.10	5.10	5.17	5.29	5.55	5.55	5.55	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	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	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	0.00	N/A
Renewable Sources 4/	0.02	0.02	0.02	0.02	0.02	0.06	0.11	0.17	0.20	0.23	0.23	0.23	N/A
Distributed Generation 5/	0.57	0.76	0.93	1.09	1.24	1.39	1.54	1.69	1.85	2.02	2.18	2.33	N/A
Total Unplanned Additions	6.18	7.03	7.24	7.97	8.82	9.75	10.64	11.84	13.10	14.41	15.10	15.95	N/A
Cumulative Total Additions	11.83	12.68	12.89	13.62	14.47	15.40	16.29	17.49	18.75	20.06	20.75	21.60	N/A
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	N/A
Other Fossil Steam 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	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	0.00	N/A
Combustion Turbine/Diesel	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	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	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	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	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	0.00	N/A
Total	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	N/A

Table 62. Electric Power Projections for EMM Region  
Mid-Atlantic Area Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/ Capacity</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	0.0%
Petroleum	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	3.8%
Natural Gas	0.76	0.77	0.80	0.82	0.84	0.87	0.90	0.93	0.95	0.98	1.01	1.05	3.0%
Other Gaseous Fuels	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	1.8%
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	3.0%
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	N/A
Total	1.05	1.07	1.09	1.12	1.14	1.17	1.20	1.23	1.26	1.29	1.32	1.35	2.3%
Other End Use Generators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.1%
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	106.94	107.97	109.19	109.98	111.10	112.31	113.73	114.41	115.53	116.79	118.33	119.19	1.1%
Commercial/Other	153.39	155.62	157.65	159.86	162.17	164.72	167.26	169.81	171.90	174.19	176.55	178.92	1.9%
Industrial	58.80	59.57	60.35	61.27	62.16	62.78	63.49	64.06	64.90	65.71	66.57	67.62	1.4%
Transportation	2.36	2.39	2.43	2.46	2.51	2.55	2.59	2.63	2.68	2.72	2.77	2.81	1.7%
Total Sales	321.48	325.56	329.63	333.58	337.94	342.36	347.06	350.91	355.00	359.40	364.21	368.54	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	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	0.00	N/A
Gross Interregional Electricity Imports	33.18	31.13	29.82	28.89	28.50	30.03	29.03	27.70	29.80	30.56	28.35	27.62	-0.4%
Gross Interregional Electricity Exports	11.89	10.69	9.16	9.09	9.15	9.90	10.08	10.29	10.80	10.25	8.49	7.56	-3.7%
Purchases from Combined Heat and Power 8	3.00	3.11	3.22	3.34	3.54	3.73	3.94	4.04	4.16	4.27	4.40	4.53	6.0%
Electric Power Sector Generation for Custom	317.73	322.51	326.40	331.25	336.04	339.68	345.56	350.97	353.54	356.70	362.04	366.22	1.6%
Total Net Energy for Load	342.03	346.05	350.29	354.40	358.93	363.54	368.45	372.43	376.70	381.28	386.29	390.81	1.6%
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	148.02	148.26	148.59	149.00	154.01	156.31	160.46	165.28	167.43	169.48	173.64	178.64	1.9%
Petroleum	3.61	4.47	4.15	4.09	4.19	3.62	4.00	4.11	3.88	3.38	3.57	3.22	-2.8%
Natural Gas	50.10	53.77	57.65	60.17	59.88	61.77	62.96	63.15	63.63	65.17	66.13	65.75	4.2%
Nuclear	109.37	109.37	109.37	111.38	111.38	111.38	111.38	111.38	111.38	111.38	111.38	111.38	0.2%
Pumped Storage/Other 3/	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	3.1%
Renewable Sources 4/	12.47	12.48	12.47	12.45	12.42	12.44	12.59	12.89	13.06	13.13	13.16	13.07	2.5%
Total Generation	322.97	327.75	331.64	336.49	341.27	344.91	350.80	356.20	358.78	361.94	367.27	371.46	1.5%
Sales to Customers	317.73	322.51	326.40	331.25	336.04	339.68	345.56	350.97	353.54	356.70	362.04	366.22	1.6%
Generation for Own Use	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	0.9%
Distributed Generation 5/	0.25	0.33	0.41	0.48	0.54	0.61	0.67	0.74	0.81	0.88	0.95	1.02	N/A
<b>Combined Heat and Power</b>													
Coal	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.0%
Petroleum	1.51	1.53	1.55	1.57	1.65	1.73	1.82	1.82	1.83	1.83	1.84	1.84	5.6%
Natural Gas	4.93	5.08	5.24	5.41	5.61	5.82	6.04	6.24	6.45	6.67	6.91	7.16	3.4%
Other Gaseous Fuels	1.09	1.12	1.15	1.18	1.21	1.24	1.27	1.29	1.31	1.33	1.35	1.37	4.3%
Renewable Sources 4/	1.83	1.87	1.92	1.96	2.00	2.04	2.07	2.11	2.14	2.18	2.22	2.26	2.6%
Other	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.0%
Total	10.56	10.79	11.05	11.31	11.66	12.01	12.38	12.64	12.91	13.20	13.50	13.82	3.1%
Other End Use Generators	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.23	0.24	0.25	0.26	0.27	1.9%

Table 62. Electric Power Projections for EMM Region  
Mid-Atlantic Area Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	3.00	3.11	3.22	3.34	3.54	3.73	3.94	4.04	4.16	4.27	4.40	4.53	6.0%
Generation for Own Use	7.77	7.90	8.03	8.18	8.34	8.50	8.67	8.83	9.00	9.17	9.36	9.56	2.2%
Total Electricity Generation	333.98	339.08	343.30	348.48	353.69	357.75	364.08	369.82	372.74	376.27	381.98	386.57	1.6%
End-Use Prices (2002 cents per kilowatthour)													
Residential	8.6	8.6	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.6	8.7	8.7	-0.4%
Commercial	7.1	7.3	7.4	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.5	7.5	-0.2%
Industrial	5.8	6.0	6.1	6.1	6.1	6.1	6.1	6.2	6.1	6.0	6.1	6.1	0.0%
Transportation	7.0	7.1	7.2	7.2	7.2	7.1	7.1	7.2	7.1	7.0	7.1	7.1	-0.1%
All Sectors Average	7.4	7.5	7.6	7.6	7.6	7.6	7.6	7.7	7.6	7.5	7.6	7.7	-0.3%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.6	4.7	4.9	4.9	4.9	4.9	4.9	5.0	4.9	4.8	4.9	5.0	-0.3%
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	0.0%
Distribution	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-0.3%
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.51	1.51	1.51	1.52	1.56	1.58	1.61	1.64	1.66	1.67	1.70	1.74	1.5%
Natural Gas	0.41	0.44	0.47	0.49	0.49	0.50	0.51	0.51	0.50	0.51	0.52	0.52	3.3%
Oil	0.03	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.03	0.03	0.03	-3.7%
Total	1.95	1.99	2.02	2.04	2.09	2.11	2.15	2.19	2.20	2.22	2.26	2.29	1.7%
Emissions (million tons) 10/													
Total Carbon	49.49	50.15	50.74	51.13	52.36	52.89	53.97	54.93	55.28	55.74	56.75	57.66	1.6%
Carbon Dioxide	181.45	183.89	186.03	187.47	191.97	193.92	197.90	201.40	202.70	204.40	208.10	211.42	1.6%
Sulfur Dioxide	1.16	1.15	1.18	1.18	1.19	1.19	1.20	1.21	1.21	1.21	1.22	1.21	-0.3%
Nitrogen Oxide	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.21	-0.5%

Table 62. Electric Power Projections for EMM 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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 63. Electric Power Projections for EMM Region  
Mid-America Interconnected Network

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b> (gigawatts)													
Coal Steam	29.55	29.55	29.55	29.55	29.23	29.76	29.67	29.67	29.54	29.54	29.54	29.54	29.54
Other Fossil Steam 2/	3.99	4.00	4.00	4.00	4.00	4.00	4.00	4.00	2.28	0.05	0.03	0.03	0.03
Combined Cycle	1.90	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Combustion Turbine/Diesel	11.98	15.49	15.61	15.61	15.48	15.48	15.48	15.48	15.21	15.21	15.21	15.00	15.00
Nuclear Power	13.67	14.07	14.08	14.08	14.08	14.14	14.14	14.26	14.26	14.26	14.34	14.34	14.34
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/	1.04	1.06	1.12	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
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 Capacity	62.58	68.87	69.06	69.07	68.61	69.19	69.11	69.22	67.10	64.87	64.93	64.72	64.72
<b>Cumulative Planned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
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	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	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/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	0.07	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	0.22	0.22	0.22	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
<b>Cumulative Unplanned Additions 6/</b>													
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	0.22	0.22	0.22	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.32	0.32	0.41	0.41	0.54	0.54	0.54	0.54	0.54
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	3.95	3.97	3.97	3.97
Combined Cycle	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
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.14	0.14	0.14	0.14	0.40	0.40	0.41	0.62	0.62
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	0.46	0.46	0.54	0.54	2.67	4.90	4.92	5.13	5.13

Table 63. Electric Power Projections for EMM Region  
Mid-America Interconnected Network

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.72	0.74	0.74	0.74	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.18	0.18	0.18	0.19	0.20	0.20	0.21	0.21	0.22	0.23	0.24	0.24	0.25
Other Gaseous Fuels	0.00	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/	0.18	0.19	0.19	0.21	0.22	0.23	0.23	0.24	0.25	0.26	0.27	0.28	0.29
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	1.09	1.11	1.12	1.13	1.15	1.17	1.18	1.19	1.20	1.22	1.24	1.26	1.27
Other End Use Generators	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.07
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	75.33	76.04	76.70	78.56	79.52	80.52	81.78	83.35	84.49	85.79	86.95	88.27	89.08
Commercial/Other	90.72	86.60	86.34	89.57	91.89	93.93	95.60	96.89	97.91	98.80	99.73	100.65	101.71
Industrial	74.63	72.78	72.29	74.26	76.32	78.00	79.63	80.93	82.11	83.44	84.90	86.28	87.67
Transportation	1.50	1.42	1.47	1.50	1.54	1.56	1.58	1.61	1.63	1.65	1.68	1.70	1.73
Total Sales	242.18	236.84	236.79	243.89	249.27	254.01	258.60	262.77	266.14	269.69	273.25	276.90	280.19
<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	9.22	6.95	5.40	5.00	4.39	4.17	4.19	3.96	2.51	1.96	1.74	1.36	1.15
Gross Interregional Electricity Exports	46.87	61.14	58.63	58.11	55.45	57.92	61.36	64.87	65.86	65.34	67.08	66.97	66.64
Purchases from Combined Heat and Power 8	0.78	0.84	0.87	0.94	0.99	1.07	1.12	1.18	1.25	1.33	1.41	1.49	1.56
Electric Power Sector Generation for Custom	272.99	283.76	305.16	312.44	315.92	323.40	331.50	339.29	345.05	348.65	354.15	358.03	361.14
Total Net Energy for Load	236.12	230.40	252.80	260.26	265.85	270.71	275.45	279.57	282.96	286.61	290.23	293.91	297.21
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	150.20	156.17	163.28	165.53	168.56	175.12	182.53	187.92	193.35	196.42	199.93	203.47	205.42
Petroleum	2.19	0.86	0.61	0.48	0.43	0.43	0.45	0.47	0.41	0.42	0.43	0.49	0.54
Natural Gas	5.90	13.38	27.79	31.31	31.09	31.42	32.00	33.33	33.54	34.02	35.65	35.89	37.01
Nuclear	112.25	111.70	111.52	112.70	113.18	113.74	113.81	114.82	114.89	114.89	115.23	115.23	115.23
Pumped Storage/Other 3/	-0.27	-0.14	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18
Renewable Sources 4/	3.99	3.94	4.88	5.33	5.58	5.61	5.64	5.65	5.70	5.73	5.75	5.78	5.78
Total Generation	274.27	285.90	307.89	315.17	318.65	326.13	334.24	342.03	347.72	351.30	356.81	360.69	363.80
Sales to Customers	272.99	283.76	305.16	312.44	315.92	323.40	331.50	339.29	345.05	348.65	354.15	358.03	361.14
Generation for Own Use	1.27	2.15	2.74	2.74	2.74	2.74	2.74	2.74	2.67	2.66	2.66	2.66	2.66
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>Combined Heat and Power</b>													
Coal	3.37	3.33	3.29	3.29	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
Petroleum	0.10	0.09	0.09	0.09	0.15	0.16	0.17	0.18	0.20	0.21	0.23	0.24	0.24
Natural Gas	1.34	1.37	1.36	1.40	1.45	1.52	1.57	1.62	1.69	1.77	1.84	1.91	1.96
Other Gaseous Fuels	0.07	0.09	0.10	0.10	0.14	0.15	0.15	0.15	0.16	0.16	0.17	0.17	0.18
Renewable Sources 4/	1.24	1.29	1.32	1.39	1.46	1.51	1.54	1.58	1.62	1.67	1.72	1.78	1.84
Other	0.35	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
Total	6.46	6.62	6.63	6.74	6.96	7.09	7.18	7.29	7.42	7.57	7.72	7.85	7.99
Other End Use Generators	0.14	0.18	0.18	0.18	0.19	0.19	0.19	0.20	0.21	0.21	0.21	0.21	0.21

Table 63. Electric Power Projections for EMM Region  
Mid-America Interconnected Network

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	0.78	0.84	0.87	0.94	0.99	1.07	1.12	1.18	1.25	1.33	1.41	1.49	1.56
Generation for Own Use	5.82	5.96	5.93	5.98	6.15	6.22	6.26	6.31	6.37	6.45	6.51	6.58	6.64
Total Electricity Generation	280.86	292.71	314.70	322.09	325.80	333.41	341.61	349.51	355.34	359.09	364.74	368.75	372.00
End-Use Prices (2002 cents per kilowatthour)													
Residential	8.4	8.1	8.3	8.3	8.2	8.1	7.9	7.9	7.8	7.9	7.9	8.0	8.0
Commercial	6.9	7.0	6.7	6.6	6.4	6.3	6.1	6.1	6.1	6.1	6.2	6.3	6.4
Industrial	4.6	4.6	4.6	4.4	4.3	4.3	4.2	4.2	4.2	4.1	4.1	4.1	4.2
Transportation	6.2	5.9	6.7	6.5	6.3	6.2	6.1	6.1	6.1	6.2	6.2	6.3	6.3
All Sectors Average	6.5	6.6	6.6	6.5	6.3	6.2	6.1	6.1	6.1	6.1	6.1	6.2	6.2
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.0	4.0	4.0	3.9	3.7	3.6	3.5	3.5	3.4	3.4	3.4	3.5	3.6
Transmission	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6
Distribution	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.64	1.68	1.77	1.80	1.83	1.89	1.97	2.03	2.09	2.13	2.18	2.23	2.25
Natural Gas	0.07	0.11	0.30	0.33	0.33	0.33	0.34	0.35	0.34	0.35	0.36	0.36	0.36
Oil	0.02	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01
Total	1.74	1.80	2.08	2.14	2.17	2.23	2.31	2.39	2.44	2.48	2.55	2.59	2.63
Emissions (million tons) 10/													
Total Carbon	54.58	56.10	55.67	57.04	57.85	59.57	61.94	63.96	65.62	66.84	68.46	69.78	70.73
Carbon Dioxide	200.13	205.71	204.14	209.15	212.13	218.43	227.12	234.52	240.60	245.09	251.03	255.86	259.34
Sulfur Dioxide	0.90	0.81	0.80	0.81	0.81	0.83	0.86	0.87	0.88	0.88	0.88	0.88	0.86
Nitrogen Oxide	0.35	0.33	0.33	0.28	0.29	0.30	0.31	0.32	0.33	0.33	0.34	0.35	0.35



Table 63. Electric Power Projections for EMM Region  
Mid-America Interconnected Network

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b> (gigawatts)													
Coal Steam	29.54	29.54	29.54	29.54	29.05	29.05	29.05	28.47	28.47	28.47	28.47	28.77	-0.1%
Other Fossil Steam 2/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	-18.9%
Combined Cycle	4.25	4.25	4.25	4.25	4.36	4.55	4.71	5.23	5.29	5.57	5.89	6.47	1.8%
Combustion Turbine/Diesel	15.00	15.00	15.17	15.73	16.71	17.30	17.76	18.72	19.45	20.16	20.45	20.63	1.3%
Nuclear Power	14.34	14.34	14.58	14.58	14.58	14.58	14.58	14.58	14.58	14.58	14.58	14.58	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	0.44	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	0.00	N/A
Renewable Sources 4/	1.13	1.13	1.13	1.13	1.22	1.22	1.22	1.24	1.24	1.24	1.24	1.30	0.9%
Distributed Generation 5/	0.04	0.08	0.19	0.30	0.42	0.54	0.67	0.80	0.93	1.08	1.21	1.36	N/A
Total Capacity	64.76	64.79	65.32	66.00	66.81	67.72	68.45	69.51	70.44	71.57	72.31	73.57	0.3%
<b>Cumulative Planned Additions 6/</b>													
Coal Steam	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	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	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	0.00	N/A
Combustion Turbine/Diesel	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	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	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	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	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	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	0.00	N/A
Total Planned Additions	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.28	0.28	0.28	0.47	0.47	0.47	0.47	0.77	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	0.00	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.11	0.31	0.46	0.98	1.05	1.32	1.64	2.22	N/A
Combustion Turbine/Diesel	0.00	0.00	0.17	0.74	1.72	2.31	2.77	3.72	4.46	5.17	5.45	5.63	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	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	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	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.09	0.09	0.09	0.12	0.12	0.12	0.12	0.17	N/A
Distributed Generation 5/	0.04	0.08	0.19	0.30	0.42	0.54	0.67	0.80	0.93	1.08	1.21	1.36	N/A
Total Unplanned Additions	0.04	0.08	0.36	1.04	2.62	3.53	4.26	6.09	7.02	8.15	8.89	10.15	N/A
Cumulative Total Additions	0.79	0.83	1.11	1.79	3.37	4.28	5.01	6.84	7.77	8.90	9.64	10.90	N/A
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.54	0.54	0.54	0.54	1.31	1.31	1.31	2.08	2.08	2.08	2.08	2.08	N/A
Other Fossil Steam 3/	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	N/A
Combined Cycle	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	N/A
Combustion Turbine/Diesel	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	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	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	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	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	0.00	N/A
Total	5.13	5.13	5.13	5.13	5.90	5.90	5.90	6.67	6.67	6.67	6.67	6.67	N/A

Table 63. Electric Power Projections for EMM Region  
Mid-America Interconnected Network

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.0%
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Natural Gas	0.26	0.26	0.27	0.28	0.29	0.30	0.31	0.31	0.32	0.33	0.34	0.36	3.0%
Other Gaseous Fuels	0.00	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/	0.30	0.30	0.31	0.32	0.33	0.33	0.34	0.35	0.35	0.36	0.37	0.38	3.0%
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	1.29	1.30	1.32	1.34	1.35	1.37	1.38	1.40	1.42	1.43	1.45	1.47	1.2%
Other End Use Generators	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.10	3.1%
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	90.18	91.32	92.62	93.50	94.67	95.96	97.44	98.31	99.52	100.81	102.35	103.33	1.3%
Commercial/Other	102.85	104.07	105.21	106.49	107.87	109.37	110.88	112.47	114.21	116.16	118.22	120.41	1.4%
Industrial	88.95	90.28	91.79	93.47	95.10	96.34	97.78	99.05	100.65	102.33	103.98	105.90	1.6%
Transportation	1.75	1.78	1.80	1.83	1.86	1.88	1.91	1.94	1.97	2.00	2.03	2.06	1.6%
Total Sales	283.74	287.45	291.43	295.28	299.49	303.55	308.01	311.77	316.36	321.30	326.57	331.71	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	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	0.00	N/A
Gross Interregional Electricity Imports	1.06	0.79	0.60	0.42	0.26	0.39	0.50	0.80	1.20	1.47	1.31	1.58	-6.2%
Gross Interregional Electricity Exports	66.17	64.36	64.30	63.00	58.28	54.82	51.55	46.25	40.69	36.78	33.88	34.09	-2.5%
Purchases from Combined Heat and Power 8	1.63	1.68	1.74	1.80	1.88	1.95	2.03	2.08	2.14	2.20	2.27	2.33	4.5%
Electric Power Sector Generation for Custom	363.65	365.76	369.97	372.80	372.57	373.13	374.32	372.59	371.36	372.27	375.29	380.50	1.3%
Total Net Energy for Load	300.17	303.87	308.01	312.03	316.43	320.65	325.30	329.22	334.01	339.16	344.99	350.32	1.8%
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	207.67	209.42	210.23	210.78	208.16	207.78	207.83	204.06	203.30	202.74	203.02	205.28	1.2%
Petroleum	0.56	0.58	0.64	0.78	0.73	0.63	0.74	1.25	1.16	1.12	1.44	1.41	2.2%
Natural Gas	37.24	37.57	39.00	41.13	43.34	44.31	45.32	46.81	46.39	47.86	50.29	53.21	6.2%
Nuclear	115.23	115.23	117.16	117.16	117.16	117.16	117.16	117.16	117.16	117.16	117.16	117.16	0.2%
Pumped Storage/Other 3/	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	1.1%
Renewable Sources 4/	5.78	5.79	5.79	5.79	6.02	6.08	6.12	6.15	6.19	6.23	6.23	6.29	2.1%
Total Generation	366.31	368.41	372.63	375.46	375.23	375.78	376.98	375.25	374.02	374.92	377.94	383.16	1.3%
Sales to Customers	363.65	365.76	369.97	372.80	372.57	373.13	374.32	372.59	371.36	372.27	375.29	380.50	1.3%
Generation for Own Use	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	0.9%
Distributed Generation 5/	0.02	0.03	0.08	0.13	0.18	0.24	0.29	0.35	0.41	0.47	0.53	0.60	N/A
<b>Combined Heat and Power</b>													
Coal	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	0.0%
Petroleum	0.25	0.26	0.26	0.26	0.28	0.29	0.30	0.31	0.31	0.31	0.31	0.31	5.6%
Natural Gas	2.02	2.08	2.15	2.22	2.30	2.39	2.48	2.56	2.65	2.73	2.83	2.94	3.4%
Other Gaseous Fuels	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.22	0.23	0.23	4.3%
Renewable Sources 4/	1.90	1.94	1.98	2.03	2.08	2.11	2.15	2.18	2.22	2.26	2.30	2.34	2.6%
Other	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.0%
Total	8.12	8.23	8.35	8.47	8.61	8.75	8.90	9.02	9.15	9.28	9.42	9.58	1.6%
Other End Use Generators	0.22	0.22	0.22	0.22	0.22	0.22	0.23	0.24	0.25	0.26	0.27	0.28	1.9%

Table 63. Electric Power Projections for EMM Region  
Mid-America Interconnected Network

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	1.63	1.68	1.74	1.80	1.88	1.95	2.03	2.08	2.14	2.20	2.27	2.33	4.5%
Generation for Own Use	6.70	6.76	6.82	6.89	6.96	7.03	7.10	7.18	7.26	7.34	7.43	7.52	1.0%
Total Electricity Generation	374.65	376.89	381.27	384.28	384.25	385.00	386.40	384.86	383.83	384.94	388.17	393.61	1.3%
End-Use Prices (2002 cents per kilowatthour)													
Residential	8.1	8.1	8.0	8.0	8.0	8.0	8.0	8.1	8.1	8.0	8.1	8.1	0.0%
Commercial	6.4	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.6	6.5	6.6	6.6	-0.2%
Industrial	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.5	4.4	4.4	4.5	4.5	-0.1%
Transportation	6.4	6.4	6.4	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	0.3%
All Sectors Average	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.4	6.3	6.4	6.4	-0.1%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9	-0.1%
Transmission	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.8%
Distribution	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	-0.7%
Fuel Consumption (quadrillion Btu) 9/													
Coal	2.29	2.31	2.32	2.33	2.26	2.26	2.26	2.19	2.18	2.18	2.18	2.20	1.2%
Natural Gas	0.37	0.37	0.38	0.40	0.42	0.43	0.43	0.44	0.44	0.45	0.47	0.48	6.5%
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	5.9%
Total	2.66	2.69	2.71	2.74	2.69	2.70	2.71	2.64	2.63	2.64	2.66	2.70	1.8%
Emissions (million tons) 10/													
Total Carbon	71.70	72.46	72.97	73.51	71.99	71.99	72.17	70.30	69.99	70.03	70.47	71.33	1.0%
Carbon Dioxide	262.90	265.70	267.57	269.54	263.95	263.95	264.63	257.76	256.64	256.76	258.38	261.53	1.0%
Sulfur Dioxide	0.85	0.81	0.81	0.80	0.77	0.82	0.82	0.78	0.78	0.79	0.79	0.79	-0.1%
Nitrogen Oxide	0.36	0.36	0.36	0.37	0.35	0.35	0.35	0.33	0.33	0.32	0.33	0.33	0.0%

Table 63. Electric Power Projections for EMM 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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 64. Electric Power Projections for EMM Region  
Mid-Continent Area Power Pool

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/ (gigawatts)</b>													
Coal Steam	18.67	18.67	18.67	18.67	18.67	18.64	18.64	18.64	18.63	18.63	18.63	18.63	18.63
Other Fossil Steam 2/	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
Combined Cycle	0.61	0.76	0.76	0.76	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Combustion Turbine/Diesel	6.17	6.66	7.40	7.49	7.49	7.49	7.56	8.20	8.74	9.24	9.65	9.82	10.17
Nuclear Power	3.32	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34
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/	4.07	4.32	4.64	4.66	4.69	4.87	5.25	5.29	5.33	5.47	5.47	5.47	5.47
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.04	0.05	0.06	0.08	0.09	0.12
Total Capacity	33.39	34.30	35.37	35.47	35.73	35.88	36.35	37.04	37.63	38.28	38.70	38.88	39.26
<b>Cumulative Planned Additions 6/</b>													
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	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Combustion Turbine/Diesel	0.00	0.00	0.75	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
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	0.33	0.34	0.37	0.55	0.94	0.95	0.97	1.09	1.09	1.09	1.09
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	1.08	1.13	1.38	1.56	1.94	1.96	1.97	2.09	2.09	2.09	2.09
<b>Cumulative Unplanned Additions 6/</b>													
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	0.04	0.04	0.04	0.12	0.76	1.36	1.86	2.27	2.44	2.80
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	0.02	0.04	0.06	0.06	0.06	0.06
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.04	0.05	0.06	0.08	0.09	0.12
Total Unplanned Additions	0.00	0.00	0.00	0.04	0.06	0.06	0.14	0.82	1.45	1.99	2.41	2.59	2.97
Cumulative Total Additions	0.00	0.00	1.08	1.18	1.43	1.61	2.08	2.78	3.43	4.08	4.50	4.68	5.06
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.07	0.07	0.07	0.07	0.07
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	0.03	0.03	0.03	0.10	0.10	0.10	0.10	0.10

Table 64. Electric Power Projections for EMM Region  
Mid-Continent Area Power Pool

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07
Other Gaseous Fuels	0.00	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/	0.13	0.13	0.14	0.14	0.15	0.16	0.16	0.17	0.17	0.18	0.19	0.19	0.20
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	0.72	0.74	0.74	0.75	0.76	0.77	0.77	0.78	0.78	0.79	0.80	0.81	0.82
Other End Use Generators	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	50.43	57.12	55.72	56.51	57.03	57.78	58.67	59.69	60.36	61.18	62.04	63.08	63.70
Commercial/Other	37.38	40.40	39.37	40.72	41.93	43.04	44.01	44.84	45.57	46.27	47.06	47.88	48.74
Industrial	53.87	59.90	56.77	58.31	59.94	61.25	62.53	63.54	64.48	65.53	66.68	67.75	68.83
Transportation	0.89	0.96	0.95	0.97	1.00	1.01	1.03	1.05	1.06	1.08	1.10	1.11	1.13
Total Sales	142.57	158.37	152.80	156.52	159.90	163.08	166.24	169.12	171.47	174.06	176.87	179.82	182.41
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	10.39	8.00	11.61	11.68	11.00	7.82	7.53	7.44	8.04	8.43	8.96	8.99	9.00
Gross International Exports	1.54	3.34	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	5.24	7.02	4.56	3.73	4.42	4.71	5.49	7.96	7.25	7.69	9.14	9.64	11.13
Gross Interregional Electricity Exports	19.46	12.63	16.29	16.17	17.63	16.61	18.98	19.85	17.98	17.28	16.80	15.27	14.53
Purchases from Combined Heat and Power 8	0.53	0.58	0.60	0.66	0.71	0.75	0.79	0.82	0.86	0.91	0.97	1.02	1.07
Electric Power Sector Generation for Custom	160.22	171.66	165.67	170.20	175.16	180.28	185.45	186.78	187.38	188.51	189.06	189.98	190.32
Total Net Energy for Load	155.38	171.29	166.16	170.10	173.66	176.96	180.27	183.15	185.55	188.26	191.33	194.35	196.98
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	122.49	128.67	120.47	122.23	126.90	131.37	135.23	135.78	136.35	136.61	136.70	136.67	136.74
Petroleum	0.82	0.75	0.27	0.28	0.31	0.31	0.32	0.34	0.25	0.25	0.27	0.38	0.60
Natural Gas	1.99	2.12	1.09	1.36	1.40	1.44	1.50	1.83	1.80	2.25	2.58	3.42	3.47
Nuclear	24.37	28.38	26.93	27.28	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39
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/	10.87	12.97	17.38	19.51	19.63	20.25	21.49	21.94	22.07	22.48	22.59	22.59	22.59
Total Generation	160.53	172.89	166.12	170.66	175.63	180.77	185.94	187.27	187.85	188.98	189.54	190.45	190.80
Sales to Customers	160.22	171.66	165.67	170.20	175.16	180.28	185.45	186.78	187.38	188.51	189.06	189.98	190.32
Generation for Own Use	0.31	1.23	0.45	0.46	0.46	0.48	0.49	0.49	0.47	0.47	0.47	0.47	0.47
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.03	0.04	0.05
<b>Combined Heat and Power</b>													
Coal	3.00	2.96	2.93	2.93	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94
Petroleum	0.04	0.04	0.04	0.04	0.06	0.07	0.07	0.08	0.08	0.09	0.10	0.10	0.11
Natural Gas	0.44	0.45	0.44	0.46	0.47	0.50	0.51	0.53	0.55	0.58	0.60	0.62	0.64
Other Gaseous Fuels	0.03	0.04	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.08	0.08
Renewable Sources 4/	1.31	1.37	1.40	1.47	1.55	1.60	1.63	1.67	1.71	1.77	1.82	1.89	1.95
Other	0.12	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Total	4.93	5.01	5.01	5.10	5.24	5.32	5.37	5.43	5.51	5.60	5.69	5.78	5.87
Other End Use Generators	0.15	0.19	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.23

Table 64. Electric Power Projections for EMM Region  
Mid-Continent Area Power Pool

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	0.53	0.58	0.60	0.66	0.71	0.75	0.79	0.82	0.86	0.91	0.97	1.02	1.07
Generation for Own Use	4.55	4.62	4.60	4.64	4.73	4.77	4.79	4.82	4.86	4.91	4.95	4.99	5.03
<b>Total Electricity Generation</b>	<b>165.62</b>	<b>178.08</b>	<b>171.33</b>	<b>175.96</b>	<b>181.06</b>	<b>186.29</b>	<b>191.53</b>	<b>192.93</b>	<b>193.60</b>	<b>194.83</b>	<b>195.48</b>	<b>196.49</b>	<b>196.94</b>
<b>End-Use Prices</b> (2002 cents per kilowatthour)													
Residential	7.6	7.5	7.0	7.0	7.0	6.9	6.7	6.8	6.8	6.9	6.7	6.7	6.8
Commercial	6.1	6.0	5.5	5.4	5.4	5.3	5.2	5.2	5.3	5.4	5.2	5.2	5.3
Industrial	4.3	4.1	3.8	3.8	3.8	3.7	3.7	3.7	3.7	3.8	3.7	3.7	3.7
Transportation	5.6	5.5	5.6	5.5	5.5	5.4	5.3	5.3	5.4	5.4	5.3	5.3	5.3
All Sectors Average	6.0	5.9	5.4	5.4	5.4	5.3	5.2	5.2	5.2	5.3	5.2	5.1	5.2
<b>Prices by Service Category</b> (2002 cents per kilowatthour)													
Generation	3.3	3.2	2.8	2.8	2.8	2.7	2.6	2.6	2.7	2.7	2.6	2.6	2.6
Transmission	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9
Distribution	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7
<b>Fuel Consumption (quadrillion Btu) 9/</b>													
Coal	1.33	1.36	1.29	1.31	1.36	1.41	1.45	1.46	1.47	1.47	1.47	1.47	1.47
Natural Gas	0.02	0.03	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
Oil	0.00	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	1.36	1.39	1.30	1.33	1.38	1.43	1.47	1.48	1.49	1.50	1.50	1.51	1.51
<b>Emissions (million tons) 10/</b>													
Total Carbon	36.53	37.73	37.50	38.13	39.61	41.05	42.34	42.58	42.76	42.93	43.03	43.15	43.24
Carbon Dioxide	133.94	138.34	137.49	139.80	145.25	150.52	155.25	156.11	156.80	157.41	157.79	158.22	158.55
Sulfur Dioxide	0.35	0.34	0.35	0.36	0.37	0.38	0.40	0.40	0.40	0.40	0.39	0.37	0.37
Nitrogen Oxide	0.31	0.28	0.26	0.26	0.27	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29

Table 64. Electric Power Projections for EMM Region  
Mid-Continent Area Power Pool

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	18.63	18.63	18.66	18.94	19.57	20.68	21.58	22.47	22.99	23.64	23.91	23.91	1.1%
Other Fossil Steam 2/	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.43	-1.2%
Combined Cycle	0.97	0.97	0.97	0.97	0.97	0.97	1.18	1.18	1.18	1.18	1.18	1.18	1.9%
Combustion Turbine/Diesel	10.72	11.35	11.76	12.01	12.01	11.60	10.99	10.95	12.02	12.02	12.02	12.02	2.6%
Nuclear Power	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	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	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	0.00	N/A
Renewable Sources 4/	5.50	5.54	5.59	5.59	5.59	5.59	5.61	5.61	5.61	5.61	5.61	5.61	1.1%
Distributed Generation 5/	0.14	0.17	0.20	0.23	0.26	0.29	0.38	0.48	0.53	0.56	0.59	0.59	N/A
<b>Total Capacity</b>	<b>39.87</b>	<b>40.57</b>	<b>41.08</b>	<b>41.64</b>	<b>42.29</b>	<b>43.03</b>	<b>43.64</b>	<b>44.59</b>	<b>46.23</b>	<b>46.91</b>	<b>47.22</b>	<b>47.08</b>	<b>1.4%</b>
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	N/A
Combustion Turbine/Diesel	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	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	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	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	0.00	N/A
Renewable Sources 4/	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	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	0.00	N/A
<b>Total Planned Additions</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>	<b>N/A</b>
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.02	0.30	0.93	2.05	2.95	3.83	4.36	5.01	5.28	5.28	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	0.00	N/A
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.21	0.21	0.21	0.21	N/A
Combustion Turbine/Diesel	3.34	4.08	4.49	4.75	4.75	4.75	5.45	6.47	7.54	7.54	7.54	7.54	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	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	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	0.00	N/A
Renewable Sources 4/	0.10	0.14	0.18	0.18	0.18	0.18	0.21	0.21	0.21	0.21	0.21	0.21	N/A
Distributed Generation 5/	0.14	0.17	0.20	0.23	0.26	0.29	0.38	0.48	0.53	0.56	0.59	0.59	N/A
<b>Total Unplanned Additions</b>	<b>3.58</b>	<b>4.40</b>	<b>4.90</b>	<b>5.46</b>	<b>6.12</b>	<b>7.27</b>	<b>9.19</b>	<b>11.20</b>	<b>12.84</b>	<b>13.52</b>	<b>13.82</b>	<b>13.82</b>	<b>N/A</b>
<b>Cumulative Total Additions</b>	<b>5.67</b>	<b>6.49</b>	<b>6.99</b>	<b>7.55</b>	<b>8.21</b>	<b>9.36</b>	<b>11.28</b>	<b>13.29</b>	<b>14.93</b>	<b>15.61</b>	<b>15.91</b>	<b>15.91</b>	<b>N/A</b>
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	N/A
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	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	0.00	N/A
Combustion Turbine/Diesel	0.07	0.18	0.18	0.18	0.18	0.59	1.90	2.96	2.96	2.96	2.96	2.96	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	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	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	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	0.00	N/A
<b>Total</b>	<b>0.10</b>	<b>0.22</b>	<b>0.22</b>	<b>0.22</b>	<b>0.22</b>	<b>0.62</b>	<b>1.94</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.13</b>	<b>N/A</b>



Table 64. Electric Power Projections for EMM Region  
Mid-Continent Area Power Pool

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.0%
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Natural Gas	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	3.0%
Other Gaseous Fuels	0.00	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	0.21	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.27	3.0%
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.83	0.84	0.85	0.85	0.86	0.87	0.88	0.88	0.89	0.90	0.91	0.92	0.9%
Other End Use Generators	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.07	3.1%
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	64.47	65.26	66.19	66.79	67.57	68.41	69.39	69.91	70.65	71.46	72.51	73.20	1.1%
Commercial/Other	49.58	50.48	51.37	52.30	53.26	54.21	55.08	55.87	56.64	57.39	58.08	58.73	1.6%
Industrial	69.84	70.87	72.06	73.37	74.66	75.62	76.75	77.74	79.00	80.31	81.59	83.10	1.4%
Transportation	1.15	1.17	1.19	1.21	1.23	1.25	1.27	1.29	1.31	1.33	1.35	1.38	1.6%
Total Sales	185.03	187.78	190.80	193.67	196.71	199.49	202.50	204.81	207.60	210.49	213.55	216.40	1.4%
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	8.78	8.71	8.51	7.92	7.54	6.82	6.18	5.68	5.51	5.18	4.91	4.69	-2.3%
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	N/A
Gross Interregional Electricity Imports	11.31	12.16	13.34	13.13	11.10	8.38	6.10	4.88	5.16	5.17	5.12	6.10	-0.6%
Gross Interregional Electricity Exports	12.56	11.58	10.32	8.87	7.98	9.69	11.14	13.12	13.76	14.40	13.78	12.34	-0.1%
Purchases from Combined Heat and Power 8	1.11	1.15	1.19	1.23	1.27	1.31	1.35	1.39	1.42	1.46	1.49	1.53	4.3%
Electric Power Sector Generation for Custom	191.12	192.13	193.08	195.44	200.17	208.25	215.77	221.86	225.33	229.34	232.27	233.09	1.3%
Total Net Energy for Load	199.78	202.57	205.80	208.85	212.10	215.08	218.26	220.70	223.66	226.75	230.01	233.08	1.3%
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	136.85	136.88	137.10	139.12	143.82	152.08	158.61	165.08	168.88	173.54	175.54	175.53	1.4%
Petroleum	0.80	1.03	1.13	1.13	0.86	0.63	0.65	0.96	1.07	0.86	1.12	1.14	1.8%
Natural Gas	3.85	4.43	4.91	5.25	5.56	5.61	6.52	5.85	5.41	4.95	5.63	6.50	5.0%
Nuclear	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	-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	0.00	N/A
Renewable Sources 4/	22.71	22.86	23.02	23.02	23.02	23.02	23.07	23.06	23.06	23.06	23.06	23.04	2.5%
Total Generation	191.60	192.60	193.55	195.92	200.65	208.72	216.24	222.34	225.81	229.81	232.74	233.60	1.3%
Sales to Customers	191.12	192.13	193.08	195.44	200.17	208.25	215.77	221.86	225.33	229.34	232.27	233.09	1.3%
Generation for Own Use	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.51	-3.8%
Distributed Generation 5/	0.06	0.08	0.09	0.10	0.11	0.13	0.17	0.21	0.23	0.25	0.26	0.26	N/A
<b>Combined Heat and Power</b>													
Coal	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	0.0%
Petroleum	0.11	0.11	0.11	0.11	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	5.6%
Natural Gas	0.66	0.68	0.70	0.73	0.75	0.78	0.81	0.84	0.87	0.89	0.93	0.96	3.4%
Other Gaseous Fuels	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	4.3%
Renewable Sources 4/	2.01	2.05	2.10	2.15	2.20	2.23	2.27	2.31	2.35	2.39	2.43	2.48	2.6%
Other	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.0%
Total	5.95	6.02	6.09	6.17	6.25	6.32	6.40	6.46	6.53	6.61	6.68	6.77	1.3%
Other End Use Generators	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.25	0.26	0.27	0.29	0.30	1.9%

Table 64. Electric Power Projections for EMM Region  
Mid-Continent Area Power Pool

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	1.11	1.15	1.19	1.23	1.27	1.31	1.35	1.39	1.42	1.46	1.49	1.53	4.3%
Generation for Own Use	5.07	5.10	5.13	5.17	5.21	5.25	5.29	5.33	5.38	5.42	5.47	5.53	0.8%
Total Electricity Generation	197.84	198.93	199.96	202.41	207.24	215.41	223.05	229.26	232.84	236.94	239.97	240.92	1.3%
End-Use Prices (2002 cents per kilowatthour)													
Residential	6.8	6.8	6.8	6.8	6.9	6.9	7.0	7.1	7.2	7.2	7.2	7.2	-0.2%
Commercial	5.3	5.3	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.7	5.7	5.6	-0.3%
Industrial	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9	-0.2%
Transportation	5.4	5.4	5.3	5.4	5.4	5.4	5.4	5.5	5.6	5.6	5.6	5.6	0.0%
All Sectors Average	5.2	5.2	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.5	5.5	5.5	-0.3%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	2.7	2.7	2.7	2.8	2.8	2.8	2.9	3.0	3.0	3.1	3.1	3.1	-0.1%
Transmission	0.9	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	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	-1.1%
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.47	1.47	1.48	1.49	1.53	1.60	1.66	1.72	1.75	1.79	1.80	1.80	1.2%
Natural Gas	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.04	0.05	0.06	3.6%
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	7.4%
Total	1.52	1.53	1.53	1.55	1.59	1.66	1.72	1.78	1.81	1.84	1.86	1.87	1.3%
Emissions (million tons) 10/													
Total Carbon	43.38	43.53	43.68	44.22	45.38	47.39	49.08	50.64	51.53	52.58	53.21	53.32	1.5%
Carbon Dioxide	159.06	159.61	160.17	162.16	166.40	173.77	179.97	185.68	188.95	192.78	195.09	195.51	1.5%
Sulfur Dioxide	0.37	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.3%
Nitrogen Oxide	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.4%

Table 64. Electric Power Projections for EMM 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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 65. Electric Power Projections for EMM Region  
 Northeast Power Coordinating Council / New York

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	3.74	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
Other Fossil Steam 2/	12.44	12.44	12.44	12.44	12.44	12.44	12.44	12.44	11.33	10.43	10.43	10.43	10.13
Combined Cycle	3.94	3.94	5.19	5.19	5.19	5.19	5.19	5.19	5.19	6.07	6.44	6.45	6.98
Combustion Turbine/Diesel	4.09	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.52	4.52	4.52	4.52	4.52
Nuclear Power	5.05	5.05	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07
Pumped Storage/Other 3/	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28
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/	4.67	4.82	4.89	4.97	5.04	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.18
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>Total Capacity</b>	<b>35.21</b>	<b>35.98</b>	<b>37.33</b>	<b>37.40</b>	<b>37.48</b>	<b>37.62</b>	<b>37.62</b>	<b>37.62</b>	<b>36.33</b>	<b>36.30</b>	<b>36.68</b>	<b>36.68</b>	<b>36.92</b>
<b>Cumulative Planned Additions 6/</b>													
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	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
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
<b>Total Planned Additions</b>	<b>0.00</b>	<b>0.00</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>
<b>Cumulative Unplanned Additions 6/</b>													
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	0.88	1.26	1.26	1.79
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
<b>Total Unplanned Additions</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.88</b>	<b>1.26</b>	<b>1.26</b>	<b>1.79</b>
<b>Cumulative Total Additions</b>	<b>0.00</b>	<b>0.00</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>1.26</b>	<b>2.13</b>	<b>2.51</b>	<b>2.51</b>	<b>3.05</b>
<b>Cumulative Retirements 7/</b>													
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	1.11	2.01	2.01	2.01	2.31
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	0.00	0.00	0.00	0.00	0.18	0.18	0.18	0.18	0.18
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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.29</b>	<b>2.19</b>	<b>2.19</b>	<b>2.19</b>	<b>2.49</b>

Table 65. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New York

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	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
Petroleum	0.21	0.21	0.21	0.21	0.26	0.29	0.29	0.31	0.33	0.35	0.38	0.39	0.40
Natural Gas	0.24	0.24	0.25	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34
Other Gaseous Fuels	0.35	0.39	0.39	0.39	0.45	0.47	0.47	0.47	0.48	0.49	0.50	0.51	0.52
Renewable Sources 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
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
Total	0.99	1.04	1.04	1.04	1.16	1.22	1.23	1.26	1.30	1.34	1.39	1.42	1.45
Other End Use Generators	0.00	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>Electricity Demand (billion kilowatthours)</b>													
Residential	46.68	48.93	47.82	48.43	48.95	49.63	50.32	51.05	51.25	51.49	51.60	51.82	51.80
Commercial/Other	70.38	70.69	67.96	70.49	73.13	75.53	77.48	79.23	80.55	82.01	83.34	84.53	85.69
Industrial	24.48	24.18	22.97	23.56	24.04	24.46	24.86	25.14	25.48	25.84	26.23	26.60	27.02
Transportation	1.28	1.29	1.27	1.30	1.33	1.35	1.36	1.38	1.40	1.42	1.43	1.45	1.47
Total Sales	142.82	145.08	140.02	143.78	147.45	150.96	154.02	156.80	158.68	160.75	162.62	164.40	165.98
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	11.85	13.90	16.24	15.70	18.25	18.34	18.34	19.13	19.38	19.72	19.84	19.25	18.28
Gross International Exports	4.08	2.95	1.49	1.50	1.51	1.52	1.53	1.54	1.56	1.57	1.56	1.56	1.56
Gross Interregional Electricity Imports	13.35	16.91	12.83	13.86	13.37	14.64	16.73	17.25	17.68	13.61	11.72	11.99	10.74
Gross Interregional Electricity Exports	8.49	8.32	7.38	12.22	12.34	12.32	13.15	12.13	11.53	11.52	10.96	9.58	9.30
Purchases from Combined Heat and Power 8	0.63	0.70	0.74	0.82	0.92	1.03	1.11	1.21	1.32	1.45	1.57	1.68	1.78
Electric Power Sector Generation for Custom	140.06	138.39	129.24	137.49	139.40	141.55	143.40	143.86	144.38	150.12	153.10	153.74	157.12
Total Net Energy for Load	153.33	158.63	150.19	154.16	158.09	161.73	164.91	167.77	169.67	171.81	173.71	175.51	177.06
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	22.59	24.76	23.56	23.22	23.78	24.96	26.16	26.24	26.29	26.18	26.23	26.05	26.23
Petroleum	16.29	11.60	9.78	8.15	11.06	10.29	10.35	10.74	10.37	10.36	10.84	11.21	11.34
Natural Gas	37.58	37.01	36.37	40.96	38.39	39.33	39.69	39.67	40.36	46.07	48.53	48.86	52.09
Nuclear	40.39	39.62	34.95	39.77	40.00	40.07	40.14	40.21	40.28	40.35	40.42	40.43	40.43
Pumped Storage/Other 3/	-0.93	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92
Renewable Sources 4/	25.20	27.38	27.79	28.61	29.40	30.12	30.29	30.23	30.24	30.31	30.24	30.35	30.19
Total Generation	141.12	139.45	131.53	139.80	141.70	143.86	145.71	146.17	146.61	152.35	155.34	155.98	159.36
Sales to Customers	140.06	138.39	129.24	137.49	139.40	141.55	143.40	143.86	144.38	150.12	153.10	153.74	157.12
Generation for Own Use	1.05	1.07	2.29	2.30	2.31	2.31	2.31	2.31	2.23	2.23	2.23	2.23	2.23
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>Combined Heat and Power</b>													
Coal	0.80	0.79	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Petroleum	0.34	0.31	0.33	0.33	0.51	0.56	0.59	0.63	0.69	0.74	0.79	0.82	0.85
Natural Gas	1.20	1.22	1.22	1.25	1.30	1.36	1.40	1.45	1.52	1.58	1.65	1.71	1.76
Other Gaseous Fuels	0.23	0.30	0.37	0.37	0.49	0.52	0.52	0.53	0.55	0.57	0.59	0.61	0.63
Renewable Sources 4/	1.66	1.73	1.77	1.87	1.96	2.02	2.07	2.11	2.16	2.23	2.31	2.39	2.47
Other	0.06	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Total	4.29	4.43	4.54	4.67	5.13	5.32	5.44	5.59	5.78	5.99	6.20	6.39	6.57
Other End Use Generators	0.19	0.24	0.24	0.25	0.25	0.25	0.26	0.27	0.28	0.28	0.29	0.29	0.29

Table 65. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New York

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	0.63	0.70	0.74	0.82	0.92	1.03	1.11	1.21	1.32	1.45	1.57	1.68	1.78
Generation for Own Use	3.84	3.97	4.04	4.10	4.46	4.55	4.59	4.65	4.74	4.83	4.91	5.00	5.08
<b>Total Electricity Generation</b>	<b>145.59</b>	<b>144.13</b>	<b>136.32</b>	<b>144.72</b>	<b>147.08</b>	<b>149.44</b>	<b>151.42</b>	<b>152.03</b>	<b>152.67</b>	<b>158.63</b>	<b>161.83</b>	<b>162.65</b>	<b>166.21</b>
<b>End-Use Prices</b> (2002 cents per kilowatthour)													
Residential	14.2	13.5	13.7	12.9	12.3	11.8	11.4	11.3	11.6	11.7	11.9	12.3	12.4
Commercial	13.1	12.4	10.5	9.8	9.2	8.8	8.4	8.3	8.6	8.7	8.8	9.2	9.4
Industrial	5.6	5.2	5.3	4.9	4.7	4.6	4.6	4.8	5.0	5.0	5.1	5.4	5.6
Transportation	10.9	9.7	10.3	9.5	8.9	8.6	8.3	8.3	8.5	8.6	8.8	9.1	9.3
All Sectors Average	11.7	11.3	10.7	10.0	9.5	9.1	8.8	8.7	9.0	9.0	9.2	9.5	9.7
<b>Prices by Service Category</b> (2002 cents per kilowatthour)													
Generation	7.0	6.4	5.8	5.1	4.5	4.2	3.9	3.8	4.0	4.1	4.3	4.6	4.8
Transmission	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Distribution	3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
<b>Fuel Consumption (quadrillion Btu) 9/</b>													
Coal	0.24	0.26	0.24	0.24	0.24	0.25	0.27	0.27	0.27	0.27	0.27	0.26	0.27
Natural Gas	0.36	0.37	0.35	0.39	0.36	0.37	0.37	0.37	0.37	0.41	0.42	0.42	0.44
Oil	0.18	0.13	0.11	0.09	0.12	0.11	0.11	0.12	0.11	0.11	0.12	0.12	0.12
Total	0.78	0.76	0.69	0.71	0.72	0.73	0.75	0.75	0.75	0.79	0.81	0.81	0.83
<b>Emissions (million tons) 10/</b>													
Total Carbon	16.11	14.85	14.72	14.82	15.27	15.57	15.98	16.10	16.06	16.62	16.99	17.06	17.46
Carbon Dioxide	59.07	54.46	53.97	54.32	55.98	57.09	58.60	59.02	58.89	60.96	62.30	62.55	64.02
Sulfur Dioxide	0.30	0.30	0.29	0.28	0.27	0.27	0.28	0.30	0.30	0.29	0.29	0.29	0.29
Nitrogen Oxide	0.07	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07

Table 65. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New York

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	4.32	4.80	5.62	6.29	2.3%
Other Fossil Steam 2/	10.13	10.00	10.00	10.00	10.00	10.00	10.00	9.45	8.93	8.93	8.55	7.73	-2.1%
Combined Cycle	7.38	7.79	8.06	8.31	8.50	8.76	8.78	9.32	9.32	9.32	9.32	9.32	3.8%
Combustion Turbine/Diesel	4.52	4.52	4.52	4.52	4.52	4.24	4.24	4.24	4.24	4.24	4.24	3.96	-0.7%
Nuclear Power	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	0.0%
Pumped Storage/Other 3/	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	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	0.00	N/A
Renewable Sources 4/	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.21	5.21	5.21	5.21	5.21	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	0.00	N/A
Total Capacity	37.32	37.60	37.86	38.12	38.30	38.29	38.31	38.32	38.38	38.86	39.30	38.86	0.3%
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	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	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	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	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	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	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	0.00	N/A
Total Planned Additions	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	1.05	1.87	2.54	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	0.00	N/A
Combined Cycle	2.19	2.60	2.87	3.12	3.31	3.57	3.59	4.13	4.13	4.13	4.13	4.13	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	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	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	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	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	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	0.00	N/A
Total Unplanned Additions	2.19	2.60	2.87	3.12	3.31	3.57	3.59	4.16	4.73	5.21	6.03	6.70	N/A
Cumulative Total Additions	3.45	3.86	4.13	4.38	4.56	4.83	4.85	5.42	5.99	6.47	7.28	7.96	N/A
<b>Cumulative Retirements 7/</b>													
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	N/A
Other Fossil Steam 3/	2.31	2.44	2.44	2.44	2.44	2.44	2.44	3.00	3.51	3.51	3.89	4.72	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	0.00	N/A
Combustion Turbine/Diesel	0.18	0.18	0.18	0.18	0.18	0.46	0.46	0.46	0.46	0.46	0.46	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	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	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	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	0.00	N/A
Total	2.49	2.62	2.62	2.62	2.62	2.90	2.90	3.46	3.97	3.97	4.35	5.46	N/A

Table 65. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New York

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.0%
Petroleum	0.42	0.42	0.43	0.43	0.45	0.47	0.50	0.50	0.50	0.50	0.50	0.50	3.8%
Natural Gas	0.34	0.35	0.36	0.37	0.38	0.40	0.41	0.42	0.43	0.45	0.46	0.48	3.0%
Other Gaseous Fuels	0.52	0.53	0.54	0.55	0.55	0.56	0.57	0.57	0.58	0.59	0.59	0.60	1.8%
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	0.02	3.0%
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	N/A
Total	1.48	1.50	1.52	1.55	1.59	1.63	1.67	1.69	1.71	1.73	1.75	1.77	2.4%
Other End Use Generators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	3.1%
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	52.01	52.31	52.69	52.87	53.22	53.62	54.11	54.24	54.59	55.03	55.58	55.80	0.6%
Commercial/Other	86.67	87.42	87.84	88.07	88.12	88.32	88.73	89.45	90.03	90.85	91.54	91.82	1.1%
Industrial	27.37	27.71	28.05	28.44	28.82	29.07	29.37	29.60	29.96	30.29	30.65	31.10	1.1%
Transportation	1.49	1.51	1.53	1.55	1.57	1.60	1.62	1.64	1.66	1.69	1.71	1.74	1.3%
Total Sales	167.55	168.95	170.11	170.93	171.73	172.61	173.82	174.93	176.25	177.85	179.49	180.46	1.0%
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	17.24	18.21	17.76	17.52	16.63	14.76	12.67	9.85	7.43	5.97	5.02	4.68	-4.6%
Gross International Exports	1.56	1.56	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	-2.8%
Gross Interregional Electricity Imports	10.54	7.96	6.75	6.49	6.62	7.61	8.38	9.09	10.32	10.56	9.12	6.97	-3.8%
Gross Interregional Electricity Exports	8.83	8.97	8.71	8.79	8.81	8.73	7.46	7.07	7.55	7.53	8.47	9.22	0.4%
Purchases from Combined Heat and Power 8	1.88	1.94	2.02	2.09	2.21	2.31	2.43	2.49	2.55	2.62	2.69	2.76	6.1%
Electric Power Sector Generation for Custom	159.46	162.52	165.07	166.46	167.98	169.60	170.82	173.65	176.67	179.52	184.52	188.70	1.4%
Total Net Energy for Load	178.72	180.11	181.34	182.22	183.07	184.00	185.29	186.47	187.88	189.58	191.32	192.35	0.8%
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	26.22	26.28	26.31	26.30	26.30	26.31	26.31	26.34	30.66	34.17	40.20	45.23	2.7%
Petroleum	11.79	12.74	11.69	11.92	11.95	11.53	12.03	11.61	11.31	11.27	10.84	10.75	-0.3%
Natural Gas	53.97	56.04	59.61	60.77	62.27	64.29	65.02	68.12	67.09	66.44	65.86	65.10	2.5%
Nuclear	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	0.1%
Pumped Storage/Other 3/	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	0.0%
Renewable Sources 4/	30.19	30.19	30.20	30.20	30.19	30.19	30.19	30.31	30.35	30.37	30.36	30.35	0.4%
Total Generation	161.69	164.76	167.31	168.70	170.21	171.83	173.06	175.89	178.90	181.75	186.75	190.94	1.4%
Sales to Customers	159.46	162.52	165.07	166.46	167.98	169.60	170.82	173.65	176.67	179.52	184.52	188.70	1.4%
Generation for Own Use	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	3.3%
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	0.00	N/A
<b>Combined Heat and Power</b>													
Coal	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.0%
Petroleum	0.88	0.90	0.91	0.92	0.97	1.02	1.07	1.07	1.07	1.07	1.08	1.08	5.6%
Natural Gas	1.81	1.86	1.93	1.99	2.06	2.14	2.22	2.29	2.37	2.45	2.53	2.63	3.4%
Other Gaseous Fuels	0.64	0.66	0.68	0.69	0.71	0.73	0.74	0.76	0.77	0.78	0.79	0.80	4.3%
Renewable Sources 4/	2.54	2.60	2.66	2.72	2.78	2.83	2.87	2.92	2.97	3.03	3.08	3.14	2.6%
Other	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.0%
Total	6.74	6.88	7.03	7.18	7.38	7.57	7.76	7.90	8.04	8.19	8.35	8.51	2.9%
Other End Use Generators	0.29	0.29	0.29	0.29	0.30	0.30	0.31	0.32	0.33	0.35	0.36	0.38	1.9%



Table 65. Electric Power Projections for EMM Region  
 Northeast Power Coordinating Council / New York

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	1.88	1.94	2.02	2.09	2.21	2.31	2.43	2.49	2.55	2.62	2.69	2.76	6.1%
Generation for Own Use	5.16	5.23	5.30	5.38	5.47	5.55	5.65	5.73	5.82	5.92	6.02	6.13	1.9%
<b>Total Electricity Generation</b>	<b>168.72</b>	<b>171.93</b>	<b>174.63</b>	<b>176.17</b>	<b>177.89</b>	<b>179.70</b>	<b>181.13</b>	<b>184.11</b>	<b>187.28</b>	<b>190.29</b>	<b>195.46</b>	<b>199.82</b>	<b>1.4%</b>
<b>End-Use Prices</b> (2002 cents per kilowatthour)													
Residential	12.5	12.5	12.6	12.6	12.6	12.6	12.7	12.8	12.8	12.7	12.7	12.8	-0.2%
Commercial	9.5	9.6	9.7	9.7	9.7	9.7	9.8	10.0	10.1	10.0	10.0	10.3	-0.8%
Industrial	5.7	5.8	5.8	5.8	5.8	5.8	5.9	6.0	6.0	6.0	6.0	6.1	0.7%
Transportation	9.3	9.3	9.4	9.3	9.3	9.3	9.4	9.4	9.4	9.3	9.3	9.4	-0.1%
All Sectors Average	9.8	9.9	10.0	9.9	9.9	9.9	10.0	10.2	10.2	10.1	10.2	10.3	-0.4%
<b>Prices by Service Category</b> (2002 cents per kilowatthour)													
Generation	4.9	5.0	5.0	5.0	5.0	5.0	5.1	5.3	5.3	5.2	5.3	5.4	-0.7%
Transmission	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	-0.1%
Distribution	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	0.1%
<b>Fuel Consumption (quadrillion Btu) 9/</b>													
Coal	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.30	0.33	0.38	0.42	2.1%
Natural Gas	0.45	0.47	0.49	0.50	0.51	0.52	0.53	0.54	0.53	0.53	0.52	0.52	1.4%
Oil	0.13	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	-0.4%
Total	0.85	0.87	0.89	0.89	0.90	0.91	0.92	0.94	0.96	0.99	1.02	1.05	1.4%
<b>Emissions (million tons) 10/</b>													
Total Carbon	17.73	18.09	18.31	18.46	18.64	18.76	18.96	19.13	19.94	20.70	21.74	22.72	1.9%
Carbon Dioxide	64.99	66.34	67.14	67.68	68.34	68.77	69.53	70.14	73.12	75.90	79.71	83.31	1.9%
Sulfur Dioxide	0.29	0.29	0.29	0.29	0.29	0.29	0.30	0.29	0.30	0.30	0.30	0.30	0.1%
Nitrogen Oxide	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.6%

Table 65. Electric Power Projections for EMM 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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 66. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New England

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b> (gigawatts)													
Coal Steam	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.93	2.93	2.93	2.93	2.93
Other Fossil Steam 2/	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	6.75	6.75	6.75	6.75	6.75
Combined Cycle	6.95	9.70	9.91	9.91	9.91	9.91	9.91	9.91	9.91	9.76	10.21	10.32	10.51
Combustion Turbine/Diesel	1.96	2.98	2.99	2.99	2.99	2.99	2.99	2.99	2.73	2.73	2.73	2.73	2.73
Nuclear Power	4.35	4.34	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/	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.05
Renewable Sources 4/	2.80	2.80	2.83	2.89	2.91	2.92	2.95	3.01	3.07	3.10	3.20	3.20	3.22
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	28.53	32.30	32.56	32.63	32.64	32.65	32.70	32.78	31.51	31.39	31.94	32.04	32.25
<b>Cumulative Planned Additions 6/</b>													
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	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Combustion Turbine/Diesel	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
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	0.02	0.03	0.05	0.05	0.05	0.05	0.05
Renewable Sources 4/	0.00	0.00	0.03	0.10	0.11	0.12	0.15	0.21	0.28	0.28	0.28	0.28	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	0.25	0.31	0.32	0.33	0.38	0.46	0.54	0.54	0.54	0.54	0.54
<b>Cumulative Unplanned Additions 6/</b>													
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	0.01	0.46	0.56	0.75
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	0.02	0.12	0.12	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	0.00	0.00	0.00	0.00	0.03	0.58	0.68	0.89
Cumulative Total Additions	0.00	0.00	0.25	0.31	0.32	0.33	0.38	0.46	0.54	0.57	1.12	1.22	1.43
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	1.07	1.07
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.15
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	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	1.34	1.50	1.50	1.50	1.50

Table 66. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New England

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
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	0.62	0.61	0.61	0.61	0.74	0.84	0.84	0.89	0.96	1.02	1.09	1.13	1.17
Natural Gas	0.43	0.43	0.44	0.45	0.46	0.48	0.49	0.51	0.53	0.55	0.56	0.58	0.60
Other Gaseous Fuels	1.01	1.14	1.14	1.14	1.31	1.35	1.35	1.37	1.39	1.42	1.44	1.46	1.49
Renewable Sources 4/	0.47	0.49	0.50	0.53	0.56	0.59	0.60	0.62	0.64	0.66	0.69	0.71	0.74
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
Total	2.54	2.69	2.70	2.74	3.10	3.28	3.30	3.40	3.53	3.67	3.80	3.91	4.01
Other End Use Generators	0.12	0.13	0.13	0.13	0.13	0.14	0.14	0.15	0.16	0.17	0.17	0.17	0.17
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	42.60	42.63	46.00	46.53	47.30	48.17	48.92	49.68	50.03	50.45	50.80	51.28	51.51
Commercial/Other	52.82	50.97	53.82	55.02	57.04	58.90	60.52	61.97	63.21	64.36	65.48	66.53	67.57
Industrial	23.44	22.61	23.27	23.88	24.49	24.92	25.29	25.60	25.91	26.30	26.71	27.09	27.51
Transportation	1.07	1.05	1.13	1.16	1.19	1.21	1.23	1.24	1.26	1.28	1.30	1.32	1.34
Total Sales	119.93	117.26	124.22	126.59	130.03	133.20	135.96	138.49	140.41	142.40	144.30	146.21	147.93
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	9.37	6.18	7.72	6.65	8.60	8.12	7.63	7.10	6.56	7.37	6.68	6.08	5.82
Gross International Exports	0.08	0.19	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	6.74	6.77	5.85	10.62	10.74	10.72	11.53	10.53	9.94	10.07	9.62	8.39	8.22
Gross Interregional Electricity Exports	1.02	0.94	0.09	0.04	0.05	0.04	0.04	0.23	0.11	0.10	0.23	0.30	0.32
Purchases from Combined Heat and Power 8	1.80	2.12	2.28	2.59	3.07	3.52	3.84	4.19	4.64	5.14	5.64	6.04	6.45
Electric Power Sector Generation for Custom	106.63	109.46	119.14	117.50	118.76	122.10	124.37	128.28	130.80	131.45	134.18	137.63	139.39
Total Net Energy for Load	123.44	123.41	134.90	137.32	141.12	144.42	147.34	149.87	151.83	153.94	155.90	157.84	159.56
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	18.64	18.26	20.42	20.25	20.77	21.22	21.66	21.63	21.63	21.63	21.63	21.63	21.63
Petroleum	14.96	9.34	36.61	8.44	14.41	13.14	14.72	17.02	18.15	18.41	19.27	21.12	25.03
Natural Gas	32.30	41.39	22.22	47.74	42.17	46.25	46.34	47.69	48.59	48.74	50.14	51.74	49.51
Nuclear	33.44	33.94	33.58	33.99	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16
Pumped Storage/Other 3/	-0.71	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85
Renewable Sources 4/	11.74	11.64	11.85	12.63	12.79	12.88	13.05	13.33	13.65	13.91	14.26	14.26	14.34
Total Generation	110.37	113.72	123.84	122.20	123.46	126.81	129.07	132.98	135.34	135.99	138.61	142.06	143.82
Sales to Customers	106.63	109.46	119.14	117.50	118.76	122.10	124.37	128.28	130.80	131.45	134.18	137.63	139.39
Generation for Own Use	3.74	4.26	4.70	4.70	4.70	4.70	4.70	4.70	4.54	4.54	4.43	4.43	4.43
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>Combined Heat and Power</b>													
Coal	0.32	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Petroleum	1.68	1.52	1.63	1.63	2.54	2.76	2.93	3.12	3.39	3.65	3.92	4.07	4.22
Natural Gas	1.06	1.08	1.07	1.10	1.15	1.20	1.24	1.28	1.34	1.40	1.45	1.51	1.55
Other Gaseous Fuels	1.15	1.49	1.80	1.80	2.43	2.57	2.57	2.64	2.73	2.83	2.92	3.00	3.09
Renewable Sources 4/	8.28	8.65	8.84	9.33	9.79	10.12	10.34	10.54	10.82	11.17	11.54	11.93	12.34
Other	0.39	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Total	12.88	13.58	14.19	14.70	16.74	17.48	17.90	18.42	19.11	19.88	20.66	21.34	22.03
Other End Use Generators	0.94	1.21	1.22	1.23	1.25	1.27	1.30	1.34	1.38	1.42	1.43	1.43	1.44

Table 66. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New England

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	1.80	2.12	2.28	2.59	3.07	3.52	3.84	4.19	4.64	5.14	5.64	6.04	6.45
Generation for Own Use	12.02	12.67	13.13	13.34	14.91	15.23	15.36	15.57	15.85	16.17	16.45	16.74	17.02
Total Electricity Generation	124.20	128.51	139.25	138.13	141.45	145.56	148.28	152.73	155.82	157.30	160.71	164.83	167.29
End-Use Prices (2002 cents per kilowatthour)													
Residential	12.1	11.2	11.5	10.9	10.3	10.0	9.9	9.9	10.1	10.2	10.4	10.6	10.8
Commercial	10.6	9.8	9.7	8.9	8.3	7.9	7.7	7.6	7.7	7.8	7.9	8.1	8.2
Industrial	9.1	8.5	8.2	7.8	7.3	7.1	6.9	6.8	6.7	6.5	6.3	6.4	6.5
Transportation	10.2	9.6	10.0	9.4	8.8	8.6	8.5	8.5	8.6	8.7	8.8	9.0	9.1
All Sectors Average	10.9	10.1	10.1	9.4	8.8	8.5	8.3	8.3	8.4	8.4	8.5	8.7	8.8
Prices by Service Category (2002 cents per kilowatthour)													
Generation	6.7	5.9	5.9	5.2	4.7	4.4	4.3	4.2	4.3	4.3	4.4	4.6	4.7
Transmission	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
Distribution	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Fuel Consumption (quadrillion Btu) 9/													
Coal	0.19	0.19	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Natural Gas	0.28	0.33	0.19	0.38	0.34	0.37	0.37	0.38	0.38	0.38	0.38	0.40	0.38
Oil	0.16	0.10	0.37	0.08	0.15	0.13	0.15	0.17	0.18	0.18	0.19	0.21	0.24
Total	0.63	0.63	0.76	0.67	0.69	0.72	0.74	0.77	0.78	0.78	0.80	0.83	0.84
Emissions (million tons) 10/													
Total Carbon	14.97	14.22	17.39	13.75	14.67	14.98	15.49	16.16	16.41	16.49	16.77	17.35	17.84
Carbon Dioxide	54.90	52.13	63.76	50.42	53.81	54.93	56.79	59.24	60.18	60.46	61.48	63.62	65.41
Sulfur Dioxide	0.21	0.18	0.30	0.15	0.18	0.15	0.16	0.17	0.18	0.18	0.18	0.18	0.19
Nitrogen Oxide	0.05	0.05	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05

Table 66. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New England

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	3.51	0.8%
Other Fossil Steam 2/	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	-0.6%
Combined Cycle	10.73	10.99	11.20	11.48	11.85	12.26	12.62	12.98	13.39	13.87	14.14	14.14	1.6%
Combustion Turbine/Diesel	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	-0.4%
Nuclear Power	4.36	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/	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	N/A
Fuel Cells	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Renewable Sources 4/	3.22	3.26	3.30	3.39	3.55	3.74	3.74	3.87	4.02	4.23	4.82	4.82	2.4%
Distributed Generation 5/	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.08	0.08	N/A
Total Capacity	32.49	32.80	33.06	33.44	33.96	34.58	34.95	35.44	36.00	36.72	37.57	38.15	0.7%
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	N/A
Combustion Turbine/Diesel	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	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	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	0.00	N/A
Fuel Cells	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Renewable Sources 4/	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	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	0.00	N/A
Total Planned Additions	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	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	0.00	N/A
Combined Cycle	0.98	1.23	1.44	1.72	2.09	2.51	2.86	3.22	3.63	4.12	4.38	4.38	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	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	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	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	0.00	N/A
Renewable Sources 4/	0.14	0.19	0.23	0.32	0.48	0.67	0.67	0.80	0.94	1.16	1.75	1.75	N/A
Distributed Generation 5/	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.08	0.08	N/A
Total Unplanned Additions	1.13	1.44	1.70	2.08	2.61	3.23	3.59	4.08	4.65	5.36	6.21	6.79	N/A
Cumulative Total Additions	1.67	1.98	2.24	2.62	3.14	3.77	4.13	4.62	5.18	5.90	6.75	7.33	N/A
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.02	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/	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	N/A
Combined Cycle	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	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	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	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	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	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	0.00	N/A
Total	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	N/A

Table 66. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New England

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/ Capacity</b>													
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	0.0%
Petroleum	1.20	1.22	1.23	1.25	1.31	1.37	1.43	1.43	1.44	1.44	1.45	1.45	3.8%
Natural Gas	0.61	0.63	0.64	0.66	0.68	0.70	0.73	0.75	0.77	0.79	0.82	0.85	3.0%
Other Gaseous Fuels	1.51	1.53	1.55	1.57	1.60	1.62	1.64	1.66	1.67	1.69	1.70	1.72	1.8%
Renewable Sources 4/	0.77	0.79	0.81	0.83	0.85	0.87	0.89	0.90	0.92	0.94	0.96	0.98	3.0%
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	N/A
Total	4.11	4.18	4.26	4.33	4.46	4.58	4.70	4.76	4.82	4.88	4.95	5.01	2.7%
Other End Use Generators	0.17	0.17	0.17	0.17	0.18	0.18	0.19	0.20	0.21	0.22	0.24	0.25	3.1%
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	51.93	52.45	53.07	53.44	53.97	54.56	55.34	55.73	56.31	56.93	57.71	58.20	1.4%
Commercial/Other	68.59	69.65	70.63	71.67	72.76	73.93	75.15	76.35	77.55	78.81	80.09	81.36	2.1%
Industrial	27.86	28.21	28.57	29.00	29.40	29.65	29.96	30.19	30.54	30.92	31.28	31.74	1.5%
Transportation	1.36	1.38	1.41	1.43	1.45	1.48	1.50	1.52	1.55	1.57	1.60	1.63	1.9%
Total Sales	149.74	151.69	153.68	155.53	157.58	159.61	161.95	163.80	165.96	168.24	170.69	172.93	1.7%
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	5.55	7.48	6.79	6.08	5.37	4.84	8.70	8.06	7.51	6.95	6.39	5.78	-0.3%
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	N/A
Gross Interregional Electricity Imports	7.91	7.94	7.75	7.80	7.91	7.90	7.00	6.65	7.24	7.18	7.82	7.50	0.4%
Gross Interregional Electricity Exports	0.28	0.31	0.22	0.22	0.16	0.44	0.38	0.67	0.49	0.56	1.10	0.92	-0.1%
Purchases from Combined Heat and Power 8	6.83	7.07	7.31	7.57	8.01	8.41	8.81	8.98	9.16	9.36	9.54	9.75	6.9%
Electric Power Sector Generation for Custom	141.33	141.12	143.78	146.44	148.73	151.30	150.29	153.37	155.26	158.18	161.06	163.99	1.8%
Total Net Energy for Load	161.33	163.30	165.41	167.67	169.85	172.01	174.43	176.39	178.68	181.10	183.71	186.10	1.8%
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	21.63	21.63	21.63	21.63	21.61	21.63	21.61	21.61	21.61	21.61	21.63	25.95	1.5%
Petroleum	29.07	27.91	29.05	30.24	26.99	24.09	20.42	21.04	22.07	19.52	19.55	17.78	2.8%
Natural Gas	47.41	48.21	49.57	50.71	55.70	60.44	63.12	65.12	65.44	70.10	70.76	71.13	2.4%
Nuclear	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	0.0%
Pumped Storage/Other 3/	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	0.0%
Renewable Sources 4/	14.34	14.49	14.65	14.98	15.54	16.26	16.26	16.72	17.26	18.07	20.24	20.25	2.4%
Total Generation	145.76	145.54	148.21	150.87	153.15	155.73	154.72	157.80	159.69	162.61	165.49	168.42	1.7%
Sales to Customers	141.33	141.12	143.78	146.44	148.73	151.30	150.29	153.37	155.26	158.18	161.06	163.99	1.8%
Generation for Own Use	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	0.2%
Distributed Generation 5/	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04	N/A
<b>Combined Heat and Power</b>													
Coal	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.0%
Petroleum	4.37	4.43	4.48	4.54	4.78	5.02	5.26	5.28	5.29	5.31	5.32	5.34	5.6%
Natural Gas	1.60	1.65	1.70	1.75	1.82	1.89	1.96	2.02	2.09	2.16	2.24	2.32	3.4%
Other Gaseous Fuels	3.17	3.25	3.34	3.42	3.50	3.59	3.67	3.73	3.79	3.85	3.91	3.97	4.3%
Renewable Sources 4/	12.71	13.00	13.28	13.59	13.89	14.13	14.37	14.61	14.86	15.13	15.39	15.68	2.6%
Other	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.0%
Total	22.68	23.16	23.63	24.14	24.83	25.45	26.09	26.47	26.86	27.28	27.69	28.14	3.2%
Other End Use Generators	1.44	1.45	1.45	1.46	1.48	1.50	1.55	1.60	1.67	1.73	1.80	1.88	1.9%

Table 66. Electric Power Projections for EMM Region  
Northeast Power Coordinating Council / New England

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	6.83	7.07	7.31	7.57	8.01	8.41	8.81	8.98	9.16	9.36	9.54	9.75	6.9%
Generation for Own Use	17.29	17.53	17.77	18.02	18.30	18.55	18.83	19.09	19.37	19.65	19.95	20.27	2.1%
Total Electricity Generation	169.88	170.16	173.31	176.48	179.48	182.71	182.39	185.90	188.25	191.66	195.02	198.47	1.9%
End-Use Prices (2002 cents per kilowatthour)													
Residential	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	-0.1%
Commercial	8.3	8.4	8.4	8.5	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	-0.7%
Industrial	6.6	6.7	6.7	6.8	6.8	6.8	6.7	6.8	6.8	6.7	6.8	6.7	-1.0%
Transportation	9.2	9.2	9.2	9.2	9.2	9.1	9.1	9.1	9.1	9.0	9.1	9.0	-0.2%
All Sectors Average	8.9	8.9	9.0	9.0	9.0	9.0	8.9	9.0	9.0	8.9	9.0	8.9	-0.5%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.9	4.9	5.0	5.0	5.0	5.0	4.9	5.0	5.0	5.0	5.0	5.0	-0.7%
Transmission	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.1%
Distribution	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	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	0.22	0.25	1.2%
Natural Gas	0.36	0.36	0.37	0.38	0.41	0.45	0.46	0.47	0.47	0.50	0.50	0.51	1.9%
Oil	0.28	0.27	0.28	0.29	0.26	0.24	0.20	0.21	0.22	0.20	0.20	0.18	2.4%
Total	0.86	0.85	0.87	0.89	0.89	0.90	0.88	0.90	0.91	0.92	0.92	0.94	1.8%
Emissions (million tons) 10/													
Total Carbon	18.40	18.18	18.58	18.91	18.79	18.74	18.28	18.62	18.75	18.71	18.78	19.28	1.3%
Carbon Dioxide	67.46	66.65	68.13	69.34	68.90	68.71	67.02	68.28	68.75	68.62	68.85	70.71	1.3%
Sulfur Dioxide	0.20	0.19	0.20	0.20	0.19	0.19	0.18	0.18	0.18	0.18	0.18	0.17	-0.4%
Nitrogen Oxide	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0%



Table 66. Electric Power Projections for EMM Region  
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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 67. Electric Power Projections for EMM Region  
Florida Reliability Coordinating Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b> (gigawatts)													
Coal Steam	10.97	11.49	11.49	10.37	10.37	10.37	10.80	11.55	11.55	11.55	12.02	12.02	12.02
Other Fossil Steam 2/	12.44	11.50	10.76	10.76	10.58	10.58	10.58	10.58	10.52	10.52	10.52	10.52	10.52
Combined Cycle	5.04	7.25	9.06	10.89	10.89	10.89	10.89	11.21	12.10	13.01	14.77	16.33	18.26
Combustion Turbine/Diesel	7.61	12.69	12.69	12.95	16.66	16.52	16.45	16.76	17.08	17.54	17.56	17.63	17.63
Nuclear Power	3.90	3.91	3.91	3.91	3.91	3.91	3.91	3.93	3.93	3.93	3.93	3.93	3.93
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/	0.59	0.59	0.59	0.59	0.59	0.59	0.61	0.61	0.61	0.64	0.67	0.67	0.67
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	40.53	47.43	48.50	49.46	52.99	52.86	53.23	54.62	55.77	57.19	59.46	61.10	63.03
<b>Cumulative Planned Additions 6/</b>													
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	1.81	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64
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	1.81	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.43	1.18	1.18	1.18	1.65	1.65	1.65
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	0.32	1.21	2.12	3.88	5.44	7.37
Combustion Turbine/Diesel	0.00	0.00	0.00	0.28	3.99	3.99	3.99	4.33	4.66	5.39	5.50	5.57	5.57
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	0.02	0.02	0.02	0.05	0.09	0.09	0.09
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	0.28	3.99	3.99	4.44	5.84	7.06	8.74	11.12	12.76	14.69
Cumulative Total Additions	0.00	0.00	1.81	3.92	7.63	7.63	8.08	9.48	10.70	12.38	14.76	16.40	18.33
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.00	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Other Fossil Steam 3/	0.00	0.00	0.35	0.35	0.54	0.54	0.54	0.54	0.60	0.60	0.60	0.60	0.60
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	0.03	0.03	0.16	0.24	0.27	0.27	0.54	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	0.35	1.50	1.69	1.82	1.90	1.92	1.99	2.26	2.36	2.36	2.36

Table 67. Electric Power Projections for EMM Region  
Florida Reliability Coordinating Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.18	0.18	0.18	0.18	0.19	0.20	0.20	0.21	0.22	0.22	0.23	0.24	0.24
Other Gaseous Fuels	0.00	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/	0.24	0.25	0.25	0.27	0.28	0.30	0.30	0.31	0.32	0.33	0.35	0.36	0.37
Other	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
Total	0.46	0.48	0.48	0.50	0.53	0.55	0.56	0.57	0.59	0.61	0.63	0.65	0.67
Other End Use Generators	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	94.06	102.47	103.35	105.37	107.19	109.20	111.53	114.27	116.40	118.89	121.28	123.89	125.73
Commercial/Other	77.75	79.09	79.44	82.25	84.92	87.49	90.27	93.39	96.83	100.44	103.92	106.95	109.62
Industrial	15.23	15.52	15.26	15.68	16.06	16.39	16.72	17.00	17.24	17.52	17.86	18.19	18.55
Transportation	1.03	1.04	1.07	1.11	1.14	1.17	1.19	1.22	1.25	1.28	1.31	1.34	1.37
Total Sales	188.07	198.12	199.11	204.40	209.31	214.24	219.72	225.88	231.71	238.13	244.37	250.37	255.28
<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	38.11	46.90	47.11	47.96	48.42	48.43	48.47	46.74	46.54	46.52	43.26	40.50	37.52
Gross Interregional Electricity Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
Purchases from Combined Heat and Power 8	0.38	0.44	0.46	0.48	0.53	0.61	0.67	0.74	0.83	0.92	1.01	1.07	1.12
Electric Power Sector Generation for Custom	177.59	177.23	164.99	169.64	174.24	179.33	184.90	192.80	198.92	205.61	215.16	224.03	232.06
Total Net Energy for Load	216.09	224.57	212.56	218.08	223.19	228.37	234.04	240.27	246.29	253.06	259.42	265.59	270.69
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	60.99	50.49	75.80	70.37	72.77	75.09	80.20	85.76	85.76	85.85	89.32	89.34	89.62
Petroleum	40.30	32.32	24.61	14.59	14.20	15.17	16.02	19.33	17.55	14.42	18.04	26.83	28.22
Natural Gas	42.27	59.31	29.76	49.56	51.86	53.65	53.07	51.87	59.77	69.35	71.63	71.59	77.91
Nuclear	31.58	33.70	33.16	33.59	33.72	33.72	33.72	33.89	33.89	33.89	33.89	33.89	33.89
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/	3.32	3.76	4.16	4.03	4.20	4.23	4.44	4.49	4.48	4.62	4.81	4.91	4.95
Total Generation	178.45	179.59	167.50	172.14	176.75	181.86	187.44	195.34	201.44	208.14	217.68	226.55	234.59
Sales to Customers	177.59	177.23	164.99	169.64	174.24	179.33	184.90	192.80	198.92	205.61	215.16	224.03	232.06
Generation for Own Use	0.86	2.36	2.51	2.50	2.51	2.53	2.54	2.54	2.52	2.52	2.52	2.52	2.52
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>Combined Heat and Power</b>													
Coal	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.17
Petroleum	0.42	0.38	0.41	0.41	0.64	0.70	0.74	0.79	0.85	0.92	0.99	1.03	1.06
Natural Gas	0.97	0.99	0.98	1.01	1.05	1.09	1.13	1.17	1.22	1.28	1.33	1.38	1.42
Other Gaseous Fuels	0.29	0.38	0.46	0.46	0.61	0.65	0.65	0.67	0.69	0.71	0.74	0.76	0.78
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	0.62	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Total	2.47	2.74	2.83	2.86	3.29	3.43	3.50	3.61	3.75	3.90	4.04	4.15	4.25
Other End Use Generators	0.00	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 67. Electric Power Projections for EMM Region  
 Florida Reliability Coordinating Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	0.38	0.44	0.46	0.48	0.53	0.61	0.67	0.74	0.83	0.92	1.01	1.07	1.12
Generation for Own Use	2.09	2.30	2.37	2.38	2.76	2.82	2.83	2.87	2.92	2.98	3.03	3.08	3.12
<b>Total Electricity Generation</b>	<b>180.92</b>	<b>182.32</b>	<b>170.33</b>	<b>175.00</b>	<b>180.03</b>	<b>185.28</b>	<b>190.94</b>	<b>198.95</b>	<b>205.20</b>	<b>212.03</b>	<b>221.72</b>	<b>230.70</b>	<b>238.83</b>
<b>End-Use Prices</b> (2002 cents per kilowatthour)													
Residential	8.8	8.2	9.1	9.2	9.3	9.3	9.2	9.2	9.2	9.2	9.1	9.1	9.1
Commercial	7.3	6.7	7.1	7.1	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.3	7.4
Industrial	5.6	5.3	5.3	5.3	5.3	5.4	5.3	5.4	5.4	5.4	5.3	5.4	5.4
Transportation	7.5	7.3	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.3	7.4	7.4
All Sectors Average	7.9	7.4	8.0	8.0	8.1	8.1	8.1	8.1	8.1	8.1	8.0	8.1	8.1
<b>Prices by Service Category</b> (2002 cents per kilowatthour)													
Generation	5.4	4.8	5.5	5.5	5.5	5.5	5.4	5.5	5.4	5.4	5.3	5.3	5.4
Transmission	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Distribution	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0
<b>Fuel Consumption (quadrillion Btu) 9/</b>													
Coal	0.64	0.54	0.74	0.68	0.71	0.73	0.78	0.83	0.83	0.83	0.86	0.86	0.86
Natural Gas	0.39	0.52	0.25	0.39	0.41	0.43	0.43	0.42	0.47	0.54	0.54	0.54	0.57
Oil	0.39	0.30	0.24	0.14	0.14	0.14	0.15	0.18	0.16	0.14	0.16	0.23	0.24
Total	1.41	1.35	1.24	1.22	1.26	1.30	1.36	1.42	1.46	1.50	1.56	1.62	1.67
<b>Emissions (million tons) 10/</b>													
Total Carbon	28.99	29.55	30.44	28.57	29.42	30.53	31.94	33.80	34.24	34.73	36.16	37.56	38.36
Carbon Dioxide	106.28	108.36	111.62	104.74	107.87	111.93	117.13	123.92	125.53	127.35	132.59	137.71	140.65
Sulfur Dioxide	0.32	0.32	0.36	0.27	0.27	0.28	0.28	0.26	0.29	0.30	0.30	0.28	0.27
Nitrogen Oxide	0.29	0.26	0.19	0.15	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17

Table 67. Electric Power Projections for EMM Region  
Florida Reliability Coordinating Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/ (gigawatts)</b>													
Coal Steam	12.02	12.02	12.18	12.18	12.70	13.02	14.87	17.08	19.23	21.08	22.00	22.99	3.1%
Other Fossil Steam 2/	10.52	10.52	10.52	10.01	10.01	10.01	9.94	9.94	9.94	9.70	9.70	9.70	-0.7%
Combined Cycle	19.88	21.25	21.81	22.60	23.48	24.33	24.33	24.33	24.33	24.33	24.33	24.33	5.4%
Combustion Turbine/Diesel	17.63	17.63	17.63	17.84	18.18	18.62	18.62	18.62	18.62	18.62	18.62	18.54	1.7%
Nuclear Power	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	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	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	0.00	N/A
Renewable Sources 4/	0.67	0.67	0.67	0.72	0.83	0.88	0.88	0.88	0.88	0.88	0.92	0.95	2.1%
Distributed Generation 5/	0.03	0.06	0.09	0.13	0.20	0.26	0.34	0.41	0.45	0.48	0.51	0.54	N/A
<b>Total Capacity</b>	<b>64.68</b>	<b>66.08</b>	<b>66.82</b>	<b>67.41</b>	<b>69.32</b>	<b>71.05</b>	<b>72.89</b>	<b>75.18</b>	<b>77.37</b>	<b>79.01</b>	<b>80.00</b>	<b>80.97</b>	<b>2.4%</b>
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	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	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	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	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	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	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	0.00	N/A
<b>Total Planned Additions</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>3.64</b>	<b>N/A</b>
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	1.65	1.65	1.81	1.81	2.33	2.65	4.50	6.71	8.86	10.71	11.63	12.62	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	0.00	N/A
Combined Cycle	8.99	10.36	10.92	11.71	12.59	13.44	13.44	13.44	13.44	13.44	13.44	13.44	N/A
Combustion Turbine/Diesel	5.57	5.57	5.57	5.78	6.13	6.56	6.56	6.56	6.56	6.56	6.56	6.56	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	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	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	0.00	N/A
Renewable Sources 4/	0.09	0.09	0.09	0.14	0.24	0.30	0.30	0.30	0.30	0.30	0.33	0.37	N/A
Distributed Generation 5/	0.03	0.06	0.09	0.13	0.20	0.26	0.34	0.41	0.45	0.48	0.51	0.54	N/A
<b>Total Unplanned Additions</b>	<b>16.34</b>	<b>17.74</b>	<b>18.48</b>	<b>19.58</b>	<b>21.49</b>	<b>23.21</b>	<b>25.13</b>	<b>27.42</b>	<b>29.61</b>	<b>31.48</b>	<b>32.47</b>	<b>33.52</b>	<b>N/A</b>
<b>Cumulative Total Additions</b>	<b>19.98</b>	<b>21.37</b>	<b>22.12</b>	<b>23.21</b>	<b>25.13</b>	<b>26.85</b>	<b>28.77</b>	<b>31.06</b>	<b>33.25</b>	<b>35.12</b>	<b>36.11</b>	<b>37.16</b>	<b>N/A</b>
<b>Cumulative Retirements 7/</b>													
Coal Steam	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	N/A
Other Fossil Steam 3/	0.60	0.60	0.60	1.11	1.11	1.11	1.18	1.18	1.18	1.42	1.42	1.42	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	0.00	N/A
Combustion Turbine/Diesel	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.71	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	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	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	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	0.00	N/A
<b>Total</b>	<b>2.36</b>	<b>2.36</b>	<b>2.36</b>	<b>2.87</b>	<b>2.87</b>	<b>2.87</b>	<b>2.94</b>	<b>2.94</b>	<b>2.94</b>	<b>3.18</b>	<b>3.18</b>	<b>3.25</b>	<b>N/A</b>

Table 67. Electric Power Projections for EMM Region  
Florida Reliability Coordinating Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/</b>													
<b>Capacity</b>													
Coal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Natural Gas	0.25	0.26	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	3.0%
Other Gaseous Fuels	0.00	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/	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.45	0.46	0.47	0.48	0.49	3.0%
Other	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Total	0.69	0.71	0.72	0.74	0.76	0.78	0.80	0.81	0.83	0.85	0.87	0.89	2.8%
Other End Use Generators	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.11	0.11	0.12	0.13	3.1%
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	127.94	130.15	132.62	134.52	136.78	139.14	141.78	143.54	145.77	148.11	150.89	152.86	1.8%
Commercial/Other	112.13	114.79	117.74	121.44	125.67	130.04	133.96	137.28	140.04	142.67	145.69	149.58	2.8%
Industrial	18.84	19.17	19.51	19.90	20.28	20.59	20.93	21.24	21.59	21.99	22.39	22.84	1.7%
Transportation	1.40	1.44	1.47	1.50	1.54	1.58	1.62	1.65	1.69	1.73	1.77	1.82	2.4%
Total Sales	260.31	265.55	271.34	277.36	284.26	291.35	298.29	303.70	309.09	314.51	320.74	327.10	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	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	0.00	N/A
Gross Interregional Electricity Imports	35.77	32.78	31.70	32.13	32.94	34.17	31.65	27.85	20.99	19.53	19.05	20.04	-3.6%
Gross Interregional Electricity Exports	0.01	0.09	0.33	0.38	0.33	0.02	0.03	0.02	0.03	0.03	0.03	0.14	N/A
Purchases from Combined Heat and Power 8	1.18	1.21	1.25	1.28	1.37	1.45	1.54	1.57	1.59	1.62	1.65	1.68	6.0%
Electric Power Sector Generation for Custom	238.25	246.61	253.94	259.85	266.11	271.88	281.60	291.29	303.79	310.86	317.84	323.60	2.7%
Total Net Energy for Load	275.20	280.52	286.55	292.89	300.10	307.49	314.76	320.68	326.35	331.99	338.51	345.17	1.9%
<b>Generation by Fuel Type</b> (billion kilowatthours)													
Coal	89.60	89.58	90.75	90.82	94.70	97.06	110.81	127.14	143.14	156.35	163.16	170.38	5.4%
Petroleum	28.89	32.77	31.09	30.10	26.08	25.41	22.76	24.46	19.95	16.55	18.53	20.33	-2.0%
Natural Gas	83.43	87.91	95.75	102.44	108.35	112.01	110.40	101.99	103.03	100.29	98.39	95.01	2.1%
Nuclear	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	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	0.00	N/A
Renewable Sources 4/	4.96	4.99	4.98	5.12	5.61	6.04	6.26	6.34	6.31	6.32	6.39	6.51	2.4%
Total Generation	240.77	249.13	256.46	262.37	268.64	274.41	284.12	293.81	306.32	313.39	320.36	326.11	2.6%
Sales to Customers	238.25	246.61	253.94	259.85	266.11	271.88	281.60	291.29	303.79	310.86	317.84	323.60	2.7%
Generation for Own Use	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.51	0.3%
Distributed Generation 5/	0.01	0.03	0.04	0.06	0.09	0.12	0.15	0.18	0.20	0.21	0.22	0.24	N/A
<b>Combined Heat and Power</b>													
Coal	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.0%
Petroleum	1.10	1.12	1.13	1.15	1.21	1.27	1.33	1.33	1.33	1.34	1.34	1.35	5.6%
Natural Gas	1.46	1.50	1.55	1.60	1.66	1.72	1.79	1.85	1.91	1.97	2.05	2.12	3.4%
Other Gaseous Fuels	0.80	0.82	0.84	0.86	0.88	0.90	0.93	0.94	0.96	0.97	0.99	1.00	4.3%
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	0.00	N/A
Other	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.0%
Total	4.35	4.43	4.51	4.60	4.74	4.88	5.03	5.11	5.19	5.27	5.36	5.45	3.0%
Other End Use Generators	0.00	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 67. Electric Power Projections for EMM Region  
Florida Reliability Coordinating Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	1.18	1.21	1.25	1.28	1.37	1.45	1.54	1.57	1.59	1.62	1.65	1.68	6.0%
Generation for Own Use	3.17	3.22	3.27	3.32	3.37	3.43	3.49	3.54	3.59	3.65	3.71	3.77	2.2%
<b>Total Electricity Generation</b>	<b>245.14</b>	<b>253.59</b>	<b>261.01</b>	<b>267.03</b>	<b>273.46</b>	<b>279.40</b>	<b>289.29</b>	<b>299.09</b>	<b>311.70</b>	<b>318.87</b>	<b>325.95</b>	<b>331.80</b>	<b>2.6%</b>
<b>End-Use Prices</b> (2002 cents per kilowatthour)													
Residential	9.1	9.1	9.1	9.0	9.0	8.9	8.9	8.9	8.9	8.9	8.9	8.9	0.3%
Commercial	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	0.4%
Industrial	5.4	5.4	5.4	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	0.0%
Transportation	7.4	7.4	7.3	7.2	7.2	7.1	7.1	7.1	7.1	7.1	7.0	7.0	-0.2%
All Sectors Average	8.1	8.1	8.1	8.0	8.0	8.0	7.9	8.0	8.0	8.0	7.9	7.9	0.3%
<b>Prices by Service Category</b> (2002 cents per kilowatthour)													
Generation	5.4	5.4	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.2	0.3%
Transmission	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	2.3%
Distribution	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	-0.3%
<b>Fuel Consumption (quadrillion Btu) 9/</b>													
Coal	0.86	0.86	0.87	0.87	0.90	0.92	1.04	1.18	1.32	1.43	1.49	1.55	4.7%
Natural Gas	0.60	0.62	0.68	0.72	0.76	0.78	0.77	0.71	0.72	0.70	0.69	0.66	1.1%
Oil	0.24	0.27	0.26	0.25	0.22	0.22	0.19	0.21	0.17	0.14	0.16	0.17	-2.4%
Total	1.70	1.76	1.81	1.85	1.88	1.92	2.00	2.10	2.20	2.27	2.33	2.38	2.5%
<b>Emissions (million tons) 10/</b>													
Total Carbon	38.90	40.00	40.91	41.51	42.26	42.99	45.65	48.85	51.96	54.14	55.95	57.56	2.9%
Carbon Dioxide	142.65	146.68	150.00	152.20	154.95	157.62	167.39	179.13	190.52	198.53	205.14	211.05	2.9%
Sulfur Dioxide	0.28	0.28	0.29	0.29	0.28	0.26	0.27	0.27	0.27	0.27	0.27	0.28	-0.5%
Nitrogen Oxide	0.17	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.19	0.19	0.20	0.20	-1.2%

Table 67. Electric Power Projections for EMM 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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.



Table 68. Electric Power Projections for EMM Region  
Southeastern Electric Reliability Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b> (gigawatts)													
Coal Steam	71.73	71.60	71.38	71.38	71.38	71.38	71.27	71.27	71.24	71.24	71.24	71.24	71.24
Other Fossil Steam 2/	19.01	18.98	18.78	18.76	18.76	18.73	18.73	18.68	15.25	15.21	15.21	15.21	15.21
Combined Cycle	10.85	22.01	34.32	34.84	34.84	34.84	34.84	34.84	34.83	34.83	34.83	35.11	35.98
Combustion Turbine/Diesel	24.12	27.80	29.72	29.72	29.72	29.63	29.51	29.51	27.02	26.91	27.66	29.06	32.22
Nuclear Power	32.06	32.15	32.30	32.43	32.73	32.86	32.98	32.99	33.03	33.08	33.10	33.46	33.82
Pumped Storage/Other 3/	6.47	6.81	6.87	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94
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/	11.77	11.79	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.95	11.99	12.34
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	176.01	191.15	205.16	205.86	206.16	206.17	206.06	206.02	200.10	199.99	200.91	203.00	207.74
<b>Cumulative Planned Additions 6/</b>													
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	11.77	12.29	12.29	12.29	12.29	12.29	12.29	12.29	12.29	12.29	12.29
Combustion Turbine/Diesel	0.00	0.00	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84
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	0.01	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	13.61	14.14	14.14	14.14	14.14	14.14	14.14	14.14	14.14	14.14	14.14
<b>Cumulative Unplanned Additions 6/</b>													
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	0.29	1.15
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	2.15	5.31
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	0.15	0.19	0.54
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	0.90	2.63	7.00
Cumulative Total Additions	0.00	0.00	13.61	14.14	14.14	14.14	14.14	14.14	14.14	14.14	15.03	16.76	21.14
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.22	0.22	0.22	0.22	0.33	0.34	0.37	0.37	0.37	0.37	0.37
Other Fossil Steam 3/	0.00	0.00	0.14	0.17	0.17	0.19	0.19	0.24	3.67	3.72	3.72	3.72	3.72
Combined Cycle	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
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.09	0.21	0.21	2.69	2.81	2.81	2.81	2.81
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	0.37	0.39	0.39	0.51	0.74	0.79	6.74	6.90	6.90	6.90	6.90

Table 68. Electric Power Projections for EMM Region  
Southeastern Electric Reliability Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.90	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	4.13	4.19	4.23	4.33	4.50	4.66	4.78	4.92	5.10	5.28	5.46	5.62	5.76
Other Gaseous Fuels	0.00	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/	2.01	2.08	2.11	2.26	2.39	2.49	2.55	2.62	2.70	2.80	2.91	3.03	3.15
Other	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
Total	7.09	7.25	7.32	7.56	7.86	8.12	8.31	8.51	8.77	9.06	9.34	9.62	9.89
Other End Use Generators	0.53	0.53	0.54	0.55	0.56	0.58	0.61	0.63	0.67	0.70	0.71	0.71	0.72
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	282.15	303.87	303.50	307.97	312.25	317.15	322.83	329.69	334.94	341.38	347.47	354.03	358.42
Commercial/Other	227.82	234.72	234.35	243.81	252.45	260.54	268.85	277.76	287.21	297.05	306.52	314.93	322.72
Industrial	234.11	241.57	236.60	243.07	248.62	254.09	259.41	263.59	266.98	271.24	276.40	281.32	286.82
Transportation	3.87	3.97	4.06	4.19	4.30	4.40	4.49	4.58	4.68	4.78	4.88	4.99	5.10
Total Sales	747.96	784.14	778.51	799.03	817.63	836.18	855.58	875.62	893.81	914.45	935.27	955.25	973.05
<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	69.99	80.15	87.81	87.78	82.30	82.16	83.86	86.53	89.12	86.87	89.87	89.59	88.96
Gross Interregional Electricity Exports	55.98	64.41	66.50	66.40	61.44	61.19	61.57	58.97	58.24	56.70	53.13	49.83	46.30
Purchases from Combined Heat and Power 8	7.69	8.28	8.63	9.35	9.87	10.94	11.77	12.67	13.79	14.97	16.11	17.11	18.06
Electric Power Sector Generation for Custom	810.40	836.77	797.15	817.69	837.24	855.18	873.06	887.16	901.25	922.66	936.35	952.85	967.19
Total Net Energy for Load	832.11	860.80	827.09	848.42	867.97	887.09	907.11	927.38	945.91	967.79	989.21	1009.72	1027.91
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	450.64	454.59	447.52	451.77	466.24	482.58	498.44	501.81	507.64	509.82	511.69	513.62	514.19
Petroleum	16.21	6.76	6.22	4.45	5.24	5.35	5.67	6.24	5.84	6.38	7.37	8.42	9.21
Natural Gas	75.17	102.11	73.15	88.37	82.61	82.70	84.20	93.82	101.34	119.42	129.73	140.48	149.09
Nuclear	248.06	252.76	248.78	247.83	256.95	258.19	258.31	258.46	258.86	259.32	259.51	262.35	265.18
Pumped Storage/Other 3/	-3.95	-3.44	-3.02	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04
Renewable Sources 4/	27.45	29.97	33.48	37.48	38.43	38.61	38.70	39.09	39.01	39.17	39.51	39.43	40.96
Total Generation	813.58	842.75	806.13	826.86	846.43	864.39	882.28	896.38	909.66	931.06	944.76	961.26	975.60
Sales to Customers	810.40	836.77	797.15	817.69	837.24	855.18	873.06	887.16	901.25	922.66	936.35	952.85	967.19
Generation for Own Use	3.18	5.98	8.98	9.18	9.19	9.21	9.22	9.22	8.41	8.41	8.41	8.41	8.41
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
<b>Combined Heat and Power</b>													
Coal	3.95	3.90	3.85	3.85	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86
Petroleum	1.85	1.67	1.79	1.79	2.79	3.03	3.21	3.42	3.72	4.01	4.30	4.46	4.63
Natural Gas	24.89	25.45	25.26	25.97	26.97	28.20	29.12	30.19	31.53	32.92	34.21	35.45	36.54
Other Gaseous Fuels	1.26	1.64	1.98	1.98	2.67	2.82	2.82	2.89	3.00	3.10	3.20	3.29	3.39
Renewable Sources 4/	9.53	9.97	10.19	10.75	11.28	11.65	11.91	12.15	12.47	12.87	13.30	13.75	14.22
Other	3.82	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04
Total	45.31	47.67	48.12	49.39	52.61	54.61	55.96	57.56	59.61	61.80	63.91	65.87	67.68
Other End Use Generators	1.09	1.40	1.41	1.42	1.44	1.47	1.50	1.54	1.58	1.64	1.65	1.65	1.66

Table 68. Electric Power Projections for EMM Region  
Southeastern Electric Reliability Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	7.69	8.28	8.63	9.35	9.87	10.94	11.77	12.67	13.79	14.97	16.11	17.11	18.06
Generation for Own Use	38.70	40.78	40.89	41.46	44.18	45.14	45.69	46.44	47.41	48.47	49.45	50.40	51.28
Total Electricity Generation	859.97	891.81	855.66	877.67	900.48	920.46	939.74	955.48	970.86	994.51	1010.32	1028.77	1044.93
End-Use Prices (2002 cents per kilowatthour)													
Residential	7.7	7.5	7.8	7.7	7.6	7.4	7.3	7.2	7.0	7.0	6.9	6.9	6.9
Commercial	6.6	6.5	6.3	6.3	6.2	6.1	6.0	5.9	5.9	5.9	5.8	5.9	5.9
Industrial	4.4	4.1	4.1	4.1	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Transportation	6.3	6.0	6.3	6.2	6.0	5.9	5.8	5.7	5.7	5.6	5.6	5.6	5.6
All Sectors Average	6.3	6.1	6.2	6.2	6.1	5.9	5.8	5.8	5.7	5.7	5.6	5.7	5.7
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.3	4.1	4.3	4.2	4.1	4.0	3.9	3.9	3.8	3.8	3.7	3.8	3.8
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	0.5
Distribution	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4
Fuel Consumption (quadrillion Btu) 9/													
Coal	4.59	4.64	4.49	4.53	4.67	4.84	5.00	5.04	5.10	5.12	5.14	5.17	5.17
Natural Gas	0.73	0.93	0.60	0.73	0.69	0.69	0.70	0.77	0.79	0.93	1.02	1.10	1.16
Oil	0.17	0.07	0.07	0.05	0.06	0.06	0.06	0.07	0.06	0.07	0.08	0.09	0.09
Total	5.49	5.64	5.16	5.31	5.42	5.58	5.76	5.88	5.95	6.13	6.24	6.36	6.43
Emissions (million tons) 10/													
Total Carbon	132.62	139.47	137.26	139.90	143.59	148.29	153.08	155.43	157.37	160.50	162.65	164.84	166.19
Carbon Dioxide	486.28	511.40	503.28	512.98	526.49	543.72	561.28	569.92	577.04	588.49	596.38	604.42	609.35
Sulfur Dioxide	2.88	3.07	3.02	3.23	2.88	2.76	2.75	2.69	2.50	2.53	2.48	2.27	2.19
Nitrogen Oxide	1.20	1.11	0.80	0.65	0.65	0.67	0.68	0.68	0.67	0.68	0.68	0.69	0.69

Table 68. Electric Power Projections for EMM Region  
Southeastern Electric Reliability Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b> (gigawatts)													
Coal Steam	70.71	70.71	70.71	70.98	74.25	78.47	81.92	86.51	91.52	96.12	98.24	101.01	1.5%
Other Fossil Steam 2/	14.90	14.90	14.90	14.82	14.82	14.72	14.72	14.72	14.72	14.72	14.72	14.72	-1.1%
Combined Cycle	38.73	40.91	42.15	43.89	43.89	43.89	44.80	45.43	45.43	45.43	45.58	45.76	3.2%
Combustion Turbine/Diesel	34.35	35.67	36.70	37.32	37.32	37.32	37.56	37.65	37.65	37.65	37.85	38.06	1.4%
Nuclear Power	34.18	34.30	34.30	34.30	34.30	34.30	34.30	34.30	34.30	34.30	34.30	34.30	0.3%
Pumped Storage/Other 3/	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	0.1%
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	N/A
Renewable Sources 4/	12.54	12.67	12.67	12.82	12.82	12.82	12.85	12.85	12.85	12.85	12.88	12.94	0.4%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.08	0.16	0.25	0.34	0.34	0.34	0.34	N/A
Total Capacity	212.35	216.11	218.37	221.08	224.35	228.54	233.24	238.64	243.74	248.34	250.85	254.06	1.2%
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	12.29	12.29	12.29	12.29	12.29	12.29	12.29	12.29	12.29	12.29	12.29	12.29	N/A
Combustion Turbine/Diesel	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	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	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	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	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	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	0.00	N/A
Total Planned Additions	14.14	14.14	14.14	14.14	14.14	14.14	14.14	14.14	14.14	14.14	14.14	14.14	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.27	4.06	8.28	11.73	16.32	21.33	25.93	28.05	31.08	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	0.00	N/A
Combined Cycle	3.90	6.09	7.32	9.07	9.07	9.07	9.97	10.61	10.61	10.61	10.75	10.94	N/A
Combustion Turbine/Diesel	7.44	8.76	9.79	10.41	10.41	10.41	10.65	10.74	10.74	10.74	10.94	11.15	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	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	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	0.00	N/A
Renewable Sources 4/	0.74	0.87	0.87	1.02	1.02	1.02	1.05	1.05	1.05	1.05	1.08	1.14	N/A
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.08	0.16	0.25	0.34	0.34	0.34	0.34	N/A
Total Unplanned Additions	12.09	15.72	17.98	20.77	24.56	28.86	33.56	38.95	44.06	48.66	51.16	54.64	N/A
Cumulative Total Additions	26.22	29.85	32.12	34.90	38.70	42.99	47.70	53.09	58.20	62.80	65.30	68.78	N/A
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.89	0.89	0.89	0.89	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.68	N/A
Other Fossil Steam 3/	4.03	4.03	4.03	4.10	4.10	4.21	4.21	4.21	4.21	4.21	4.21	4.21	N/A
Combined Cycle	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	N/A
Combustion Turbine/Diesel	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	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	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	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	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	0.00	N/A
Total	7.73	7.73	7.73	7.81	8.33	8.44	8.44	8.44	8.44	8.44	8.44	8.70	N/A

Table 68. Electric Power Projections for EMM Region  
Southeastern Electric Reliability Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/</b>													
<b>Capacity</b>													
Coal	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.0%
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Natural Gas	5.91	6.06	6.23	6.40	6.60	6.81	7.04	7.24	7.46	7.69	7.93	8.19	3.0%
Other Gaseous Fuels	0.00	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/	3.26	3.35	3.43	3.52	3.61	3.68	3.75	3.82	3.90	3.98	4.06	4.14	3.0%
Other	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Total	10.14	10.38	10.63	10.89	11.19	11.47	11.76	12.04	12.33	12.64	12.96	13.31	2.7%
Other End Use Generators	0.72	0.72	0.73	0.73	0.75	0.77	0.80	0.85	0.90	0.95	1.01	1.07	3.1%
<b>Electricity Demand</b> (billion kilowatthours)													
Residential	363.83	369.23	375.36	379.96	385.49	391.40	398.00	402.15	407.69	413.59	420.60	425.33	1.5%
Commercial/Other	330.11	337.50	345.16	354.24	364.13	374.22	383.31	391.27	398.12	404.62	411.49	419.57	2.6%
Industrial	291.19	296.04	301.06	306.60	311.49	315.65	320.32	324.75	330.04	336.06	341.91	348.71	1.6%
Transportation	5.20	5.31	5.42	5.53	5.66	5.79	5.91	6.04	6.17	6.30	6.44	6.58	2.2%
Total Sales	990.33	1008.08	1027.00	1046.33	1066.78	1087.05	1107.54	1124.21	1142.03	1160.58	1180.45	1200.19	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	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	0.00	N/A
Gross Interregional Electricity Imports	84.34	83.79	83.47	85.11	80.38	79.22	76.94	70.07	54.02	48.17	46.44	47.33	-2.3%
Gross Interregional Electricity Exports	44.01	38.25	37.67	36.01	35.35	36.28	34.09	31.58	25.70	25.95	25.48	25.53	-3.9%
Purchases from Combined Heat and Power 8	18.98	19.74	20.56	21.41	22.57	23.70	24.89	25.72	26.59	27.49	28.46	29.49	5.7%
Electric Power Sector Generation for Custom	984.85	996.95	1015.70	1031.83	1056.15	1078.36	1098.67	1119.69	1147.74	1172.31	1193.46	1212.27	1.6%
Total Net Energy for Load	1044.16	1062.24	1082.05	1102.34	1123.75	1144.99	1166.41	1183.89	1202.64	1222.03	1242.88	1263.56	1.7%
<b>Generation by Fuel Type</b> (billion kilowatthours)													
Coal	511.56	512.00	512.35	515.10	539.31	569.87	594.30	626.66	662.24	695.27	711.12	731.93	2.1%
Petroleum	9.46	10.84	11.25	10.43	9.56	9.22	8.96	9.49	8.97	8.45	8.79	8.78	1.1%
Natural Gas	165.40	173.93	191.90	205.71	206.65	198.61	194.75	183.00	176.04	168.25	173.36	171.62	2.3%
Nuclear	268.16	269.12	269.12	269.12	269.12	269.12	269.12	269.12	269.12	269.12	269.12	269.12	0.3%
Pumped Storage/Other 3/	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-0.5%
Renewable Sources 4/	41.73	42.51	42.53	42.93	42.96	42.98	42.99	42.87	42.81	42.67	42.52	42.27	1.5%
Total Generation	993.26	1005.36	1024.11	1040.24	1064.56	1086.77	1107.08	1128.09	1156.14	1180.72	1201.87	1220.68	1.6%
Sales to Customers	984.85	996.95	1015.70	1031.83	1056.15	1078.36	1098.67	1119.69	1147.74	1172.31	1193.46	1212.27	1.6%
Generation for Own Use	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	1.5%
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.11	0.15	0.15	0.15	0.15	N/A
<b>Combined Heat and Power</b>													
Coal	3.86	3.86	3.86	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	0.0%
Petroleum	4.79	4.86	4.92	4.98	5.25	5.51	5.77	5.79	5.80	5.82	5.84	5.85	5.6%
Natural Gas	37.65	38.77	40.02	41.31	42.82	44.39	46.08	47.60	49.21	50.87	52.69	54.63	3.4%
Other Gaseous Fuels	3.48	3.57	3.66	3.75	3.84	3.94	4.03	4.09	4.16	4.22	4.29	4.35	4.3%
Renewable Sources 4/	14.64	14.98	15.30	15.66	16.01	16.28	16.56	16.83	17.12	17.43	17.74	18.07	2.6%
Other	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	0.0%
Total	69.47	71.08	72.81	74.61	76.83	79.02	81.34	83.22	85.20	87.25	89.46	91.82	2.9%
Other End Use Generators	1.66	1.67	1.67	1.68	1.70	1.73	1.78	1.85	1.92	2.00	2.08	2.17	1.9%

Table 68. Electric Power Projections for EMM Region  
Southeastern Electric Reliability Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	18.98	19.74	20.56	21.41	22.57	23.70	24.89	25.72	26.59	27.49	28.46	29.49	5.7%
Generation for Own Use	52.15	53.00	53.92	54.88	55.96	57.05	58.24	59.36	60.53	61.76	63.08	64.50	2.0%
Total Electricity Generation	1064.39	1078.11	1098.59	1116.53	1143.09	1167.55	1190.28	1213.27	1243.42	1270.11	1293.55	1314.82	1.7%
End-Use Prices (2002 cents per kilowatthour)													
Residential	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	-0.4%
Commercial	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.0	6.0	6.0	6.1	-0.3%
Industrial	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	-0.1%
Transportation	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.5	5.5	5.5	-0.4%
All Sectors Average	5.7	5.7	5.7	5.7	5.8	5.8	5.8	5.8	5.8	5.7	5.7	5.8	-0.2%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	3.8	3.9	3.9	3.9	3.9	3.9	4.0	4.0	3.9	3.9	3.9	4.0	-0.2%
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	1.5%
Distribution	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	-1.0%
Fuel Consumption (quadrillion Btu) 9/													
Coal	5.15	5.15	5.16	5.18	5.38	5.64	5.85	6.12	6.43	6.71	6.85	7.02	1.8%
Natural Gas	1.27	1.31	1.44	1.53	1.54	1.48	1.45	1.35	1.30	1.24	1.28	1.27	1.4%
Oil	0.10	0.11	0.11	0.10	0.10	0.09	0.09	0.10	0.09	0.09	0.09	0.09	1.0%
Total	6.51	6.57	6.71	6.82	7.02	7.22	7.39	7.57	7.82	8.04	8.22	8.38	1.7%
Emissions (million tons) 10/													
Total Carbon	167.20	168.32	170.69	172.67	178.30	184.56	189.68	196.17	203.87	211.02	215.68	220.58	2.0%
Carbon Dioxide	613.08	617.19	625.88	633.12	653.76	676.72	695.48	719.29	747.52	773.76	790.82	808.81	2.0%
Sulfur Dioxide	2.18	2.18	2.24	2.22	2.23	2.24	2.25	2.24	2.24	2.21	2.20	2.18	-1.5%
Nitrogen Oxide	0.69	0.69	0.70	0.70	0.71	0.72	0.72	0.73	0.74	0.76	0.76	0.77	-1.6%

Table 68. Electric Power Projections for EMM Region  
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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 69. Electric Power Projections for EMM Region  
Southwest Power Pool

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/ (gigawatts)</b>													
Coal Steam	21.60	21.60	21.60	21.60	21.60	21.60	20.06	19.58	19.58	19.58	19.58	19.58	19.58
Other Fossil Steam 2/	13.23	13.09	13.01	12.96	11.60	10.97	10.66	10.63	10.03	8.47	7.88	7.86	7.83
Combined Cycle	3.65	9.55	11.08	11.08	11.08	11.08	11.08	11.08	10.78	10.78	10.78	10.78	11.06
Combustion Turbine/Diesel	5.25	6.49	6.92	6.92	6.86	6.75	6.75	6.75	6.07	6.02	6.02	6.02	6.02
Nuclear Power	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	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/	2.67	2.68	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.87	2.87	2.87	2.87
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	48.07	55.09	57.14	57.09	55.67	54.93	53.08	52.57	50.99	49.39	48.81	48.79	49.05
<b>Cumulative Planned Additions 6/</b>													
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	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52
Combustion Turbine/Diesel	0.00	0.00	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58
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	0.18	0.18	0.18	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19
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	2.28	2.28	2.28	2.28	2.28	2.28	2.29	2.29	2.29	2.29	2.30
<b>Cumulative Unplanned Additions 6/</b>													
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	0.29
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	0.29
Cumulative Total Additions	0.00	0.00	2.28	2.28	2.28	2.28	2.28	2.28	2.29	2.29	2.29	2.29	2.58
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	1.54	2.02	2.02	2.02	2.02	2.02	2.02
Other Fossil Steam 3/	0.00	0.00	0.00	0.05	1.44	2.07	2.38	2.41	3.01	4.57	5.16	5.18	5.21
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.30	0.30	0.30	0.30
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.05	0.17	0.17	0.17	0.85	0.90	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	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.05	1.49	2.23	4.09	4.60	6.18	7.79	8.38	8.39	8.43



Table 69. Electric Power Projections for EMM Region  
Southwest Power Pool

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.10	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.27	0.27	0.28	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.36	0.37	0.38
Other Gaseous Fuels	0.00	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/	0.39	0.40	0.41	0.44	0.46	0.48	0.50	0.51	0.52	0.54	0.56	0.59	0.61
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
Total	0.77	0.79	0.80	0.83	0.87	0.90	0.92	0.94	0.97	1.00	1.03	1.07	1.10
Other End Use Generators	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.13	0.14	0.14	0.14	0.14
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	59.89	61.33	62.56	63.36	64.15	65.16	66.15	67.33	68.20	69.42	70.58	71.78	72.57
Commercial/Other	61.93	61.00	61.58	63.71	65.95	68.01	69.92	71.63	73.24	74.93	76.62	78.06	79.49
Industrial	46.91	47.46	46.52	47.76	48.71	49.97	51.04	51.80	52.36	53.15	54.07	54.94	55.92
Transportation	0.92	0.92	0.94	0.97	1.00	1.02	1.04	1.06	1.08	1.10	1.13	1.15	1.17
Total Sales	169.65	170.71	171.61	175.80	179.80	184.16	188.14	191.82	194.89	198.60	202.39	205.93	209.15
<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	25.91	19.18	22.67	22.94	22.83	22.72	27.99	30.46	30.30	28.39	28.05	26.72	25.35
Gross Interregional Electricity Exports	19.16	19.81	20.55	19.18	21.95	21.74	21.72	21.79	20.21	18.07	16.55	14.43	11.53
Purchases from Combined Heat and Power 8	0.48	0.50	0.52	0.55	0.55	0.59	0.63	0.67	0.72	0.77	0.82	0.86	0.90
Electric Power Sector Generation for Custom	179.68	188.59	182.87	185.73	192.79	197.02	195.83	197.46	199.10	202.73	205.47	208.27	210.04
Total Net Energy for Load	186.91	188.46	185.50	190.03	194.22	198.58	202.73	206.80	209.91	213.82	217.79	221.42	224.76
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	125.47	133.15	143.26	144.11	148.54	153.12	146.91	143.87	144.65	144.69	144.71	144.75	144.78
Petroleum	1.10	0.56	0.43	0.47	0.50	0.50	0.57	0.65	0.67	0.70	0.75	0.88	0.90
Natural Gas	38.48	41.70	28.66	29.87	32.42	32.14	37.08	41.54	42.24	45.81	48.41	51.01	52.73
Nuclear	10.35	9.04	9.17	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.39	9.39	9.39
Pumped Storage/Other 3/	-0.13	-0.18	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28
Renewable Sources 4/	5.13	6.61	5.77	6.44	6.50	6.44	6.44	6.59	6.45	6.45	6.44	6.46	6.48
Total Generation	180.41	190.87	187.01	189.92	196.99	201.23	200.04	201.68	203.05	206.68	209.42	212.21	213.99
Sales to Customers	179.68	188.59	182.87	185.73	192.79	197.02	195.83	197.46	199.10	202.73	205.47	208.27	210.04
Generation for Own Use	0.73	2.28	4.14	4.19	4.20	4.21	4.22	4.22	3.95	3.95	3.95	3.95	3.95
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>Combined Heat and Power</b>													
Coal	0.57	0.56	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Petroleum	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.05	0.05
Natural Gas	1.80	1.84	1.83	1.88	1.95	2.04	2.11	2.18	2.28	2.38	2.47	2.56	2.64
Other Gaseous Fuels	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
Renewable Sources 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Other	0.46	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Total	2.88	3.06	3.05	3.10	3.19	3.29	3.36	3.44	3.54	3.64	3.74	3.83	3.92
Other End Use Generators	0.00	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 EMM Region  
Southwest Power Pool

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	0.48	0.50	0.52	0.55	0.55	0.59	0.63	0.67	0.72	0.77	0.82	0.86	0.90
Generation for Own Use	2.40	2.56	2.53	2.56	2.65	2.70	2.73	2.77	2.82	2.87	2.92	2.97	3.02
Total Electricity Generation	183.29	193.94	190.06	193.02	200.19	204.52	203.40	205.12	206.59	210.33	213.16	216.05	217.91
End-Use Prices (2002 cents per kilowatthour)													
Residential	7.3	6.9	7.9	7.8	7.7	7.6	7.5	7.5	7.4	7.4	7.3	7.4	7.4
Commercial	6.1	5.7	6.3	6.3	6.2	6.1	6.0	6.1	6.1	6.1	6.1	6.2	6.3
Industrial	4.5	4.1	4.2	4.2	4.1	4.1	4.0	4.1	4.1	4.1	4.1	4.2	4.3
Transportation	5.7	6.0	6.0	5.9	5.9	5.7	5.7	5.8	5.8	5.8	5.8	5.9	5.9
All Sectors Average	6.1	5.7	6.3	6.3	6.2	6.1	6.0	6.0	6.0	6.0	6.0	6.1	6.2
Prices by Service Category (2002 cents per kilowatthour)													
Generation	3.5	3.1	3.8	3.8	3.8	3.7	3.7	3.7	3.7	3.7	3.8	3.9	4.0
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	2.1	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.6
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.34	1.43	1.53	1.54	1.59	1.64	1.57	1.54	1.55	1.55	1.55	1.55	1.55
Natural Gas	0.40	0.41	0.24	0.25	0.27	0.27	0.31	0.34	0.33	0.36	0.38	0.40	0.42
Oil	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	1.75	1.84	1.77	1.80	1.86	1.91	1.89	1.89	1.89	1.92	1.94	1.97	1.98
Emissions (million tons) 10/													
Total Carbon	47.86	48.71	48.00	48.52	50.22	51.63	50.35	50.14	50.20	50.70	51.07	51.45	51.69
Carbon Dioxide	175.49	178.60	176.01	177.91	184.14	189.30	184.62	183.83	184.08	185.89	187.24	188.64	189.54
Sulfur Dioxide	0.43	0.41	0.41	0.42	0.41	0.42	0.41	0.41	0.40	0.40	0.39	0.39	0.38
Nitrogen Oxide	0.33	0.31	0.26	0.26	0.27	0.28	0.27	0.27	0.27	0.27	0.27	0.27	0.27

Table 69. Electric Power Projections for EMM Region  
Southwest Power Pool

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	19.58	19.58	19.58	19.58	20.23	20.23	20.23	20.16	20.88	21.62	22.09	22.89	0.3%
Other Fossil Steam 2/	7.83	7.83	7.83	7.83	7.77	7.77	7.77	7.77	7.77	7.77	7.77	7.77	-2.2%
Combined Cycle	11.66	12.06	12.41	12.98	12.98	13.63	14.18	14.76	14.76	14.76	14.76	14.76	1.9%
Combustion Turbine/Diesel	6.26	6.53	6.68	6.68	6.68	6.68	6.78	6.85	6.83	6.83	6.83	6.83	0.2%
Nuclear Power	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	0.0%
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	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	0.00	N/A
Renewable Sources 4/	2.88	2.88	2.88	2.89	2.89	2.89	2.93	2.94	2.94	2.94	2.94	2.95	0.4%
Distributed Generation 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	N/A
Total Capacity	49.90	50.56	51.06	51.64	52.24	52.89	53.58	54.16	54.88	55.62	56.09	56.89	0.1%
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	N/A
Combustion Turbine/Diesel	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	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	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	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	0.00	N/A
Renewable Sources 4/	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	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	0.00	N/A
Total Planned Additions	2.30	2.30	2.30	2.31	2.31	2.31	2.31	2.32	2.32	2.32	2.32	2.33	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.65	0.65	0.65	0.65	1.37	2.11	2.58	3.38	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	0.00	N/A
Combined Cycle	0.89	1.29	1.63	2.21	2.21	2.86	3.41	3.98	3.98	3.98	3.98	3.98	N/A
Combustion Turbine/Diesel	0.24	0.51	0.66	0.66	0.66	0.66	0.76	0.83	0.83	0.83	0.83	0.83	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	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	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	0.00	N/A
Renewable Sources 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.04	N/A
Distributed Generation 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	N/A
Total Unplanned Additions	1.13	1.80	2.30	2.87	3.52	4.17	4.86	5.51	6.24	6.98	7.45	8.24	N/A
Cumulative Total Additions	3.43	4.10	4.60	5.18	5.83	6.48	7.17	7.83	8.55	9.30	9.77	10.57	N/A
<b>Cumulative Retirements 7/</b>													
Coal Steam	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.09	2.09	2.09	2.09	2.09	N/A
Other Fossil Steam 3/	5.21	5.21	5.21	5.21	5.27	5.27	5.27	5.27	5.27	5.27	5.27	5.27	N/A
Combined Cycle	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	N/A
Combustion Turbine/Diesel	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91	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	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	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	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	0.00	N/A
Total	8.43	8.43	8.43	8.43	8.48	8.48	8.48	8.56	8.57	8.57	8.57	8.57	N/A

Table 69. Electric Power Projections for EMM Region  
Southwest Power Pool

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.10	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Natural Gas	0.39	0.40	0.41	0.42	0.43	0.44	0.46	0.47	0.49	0.50	0.52	0.53	3.0%
Other Gaseous Fuels	0.00	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/	0.63	0.65	0.66	0.68	0.70	0.71	0.73	0.74	0.76	0.77	0.79	0.80	3.0%
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	N/A
Total	1.13	1.16	1.18	1.21	1.24	1.27	1.30	1.33	1.36	1.39	1.42	1.45	2.7%
Other End Use Generators	0.14	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.18	0.20	0.21	3.1%
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	73.58	74.60	75.76	76.69	77.74	78.90	80.15	80.88	81.94	83.12	84.50	85.43	1.5%
Commercial/Other	80.84	82.07	83.18	84.42	85.63	86.89	88.02	89.14	90.24	91.41	92.52	93.65	1.9%
Industrial	56.74	57.59	58.45	59.31	59.82	60.32	60.96	61.70	62.65	63.71	64.72	65.90	1.4%
Transportation	1.20	1.22	1.24	1.27	1.30	1.32	1.35	1.38	1.41	1.44	1.46	1.50	2.1%
Total Sales	212.36	215.48	218.63	221.69	224.49	227.43	230.48	233.10	236.23	239.67	243.20	246.48	1.6%
<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	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	0.00	N/A
Gross Interregional Electricity Imports	23.13	22.64	20.56	18.60	16.36	15.59	16.66	18.28	19.22	20.32	18.89	18.20	-0.2%
Gross Interregional Electricity Exports	10.14	9.07	8.12	7.11	6.93	4.66	4.40	3.85	4.41	4.37	4.08	3.96	-6.8%
Purchases from Combined Heat and Power 8	0.94	0.98	1.02	1.06	1.12	1.17	1.23	1.28	1.33	1.38	1.44	1.50	4.9%
Electric Power Sector Generation for Custom	214.20	216.75	221.19	225.32	230.27	231.84	233.50	234.07	237.19	239.69	244.53	248.25	1.2%
Total Net Energy for Load	228.13	231.30	234.65	237.88	240.81	243.94	247.00	249.78	253.33	257.02	260.78	264.00	1.5%
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	144.79	144.79	144.62	144.41	149.23	149.23	149.15	148.64	154.00	159.31	162.81	168.62	1.0%
Petroleum	1.14	1.61	1.55	1.25	1.00	0.92	0.97	1.91	0.95	0.87	0.92	1.03	2.7%
Natural Gas	56.60	58.55	63.05	67.64	68.00	69.65	71.36	71.46	69.97	67.27	68.54	66.57	2.1%
Nuclear	9.39	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/	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	2.0%
Renewable Sources 4/	6.50	6.64	6.81	6.86	6.87	6.88	6.86	6.90	7.11	7.09	7.09	6.88	0.2%
Total Generation	218.14	220.70	225.14	229.27	234.22	235.79	237.45	238.02	241.14	243.64	248.47	252.20	1.2%
Sales to Customers	214.20	216.75	221.19	225.32	230.27	231.84	233.50	234.07	237.19	239.69	244.53	248.25	1.2%
Generation for Own Use	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	2.4%
Distributed Generation 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	N/A
<b>Combined Heat and Power</b>													
Coal	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.0%
Petroleum	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	5.6%
Natural Gas	2.72	2.80	2.89	2.99	3.10	3.21	3.33	3.44	3.56	3.68	3.81	3.95	3.4%
Other Gaseous Fuels	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	4.3%
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	0.02	2.6%
Other	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.0%
Total	4.00	4.08	4.18	4.27	4.39	4.50	4.63	4.74	4.86	4.98	5.11	5.25	2.4%
Other End Use Generators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.9%

Table 69. Electric Power Projections for EMM Region  
Southwest Power Pool

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	0.94	0.98	1.02	1.06	1.12	1.17	1.23	1.28	1.33	1.38	1.44	1.50	4.9%
Generation for Own Use	3.06	3.11	3.16	3.21	3.27	3.33	3.40	3.46	3.53	3.60	3.68	3.76	1.7%
Total Electricity Generation	222.15	224.79	229.32	233.54	238.60	240.29	242.08	242.77	246.01	248.63	253.60	257.46	1.2%
End-Use Prices (2002 cents per kilowatthour)													
Residential	7.5	7.5	7.6	7.6	7.5	7.4	7.4	7.4	7.4	7.3	7.3	7.3	0.3%
Commercial	6.3	6.4	6.5	6.5	6.4	6.4	6.4	6.4	6.4	6.3	6.4	6.4	0.5%
Industrial	4.4	4.4	4.5	4.5	4.5	4.4	4.4	4.5	4.4	4.4	4.4	4.4	0.4%
Transportation	6.0	6.0	6.1	6.1	6.0	6.0	5.9	6.0	5.9	5.9	5.9	5.9	-0.1%
All Sectors Average	6.2	6.3	6.3	6.3	6.3	6.2	6.2	6.3	6.2	6.2	6.2	6.2	0.4%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.1	4.1	4.2	4.3	4.2	4.2	4.2	4.3	4.2	4.2	4.3	4.3	1.4%
Transmission	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.4%
Distribution	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3	-1.8%
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.56	1.56	1.55	1.55	1.59	1.59	1.59	1.59	1.63	1.68	1.71	1.76	0.9%
Natural Gas	0.44	0.45	0.48	0.51	0.52	0.52	0.53	0.53	0.51	0.50	0.51	0.49	0.8%
Oil	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	1.6%
Total	2.01	2.02	2.05	2.08	2.12	2.12	2.13	2.13	2.16	2.18	2.22	2.26	0.9%
Emissions (million tons) 10/													
Total Carbon	52.13	52.39	52.85	53.22	54.42	54.50	54.61	54.56	55.54	56.52	57.56	58.80	0.8%
Carbon Dioxide	191.14	192.11	193.80	195.13	199.55	199.83	200.23	200.05	203.64	207.25	211.06	215.59	0.8%
Sulfur Dioxide	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.38	0.38	0.38	-0.4%
Nitrogen Oxide	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.28	0.28	0.28	-0.4%

Table 69. Electric Power Projections for EMM Region  
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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 70. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / Northwest Power Pool Area

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/ (gigawatts)</b>													
Coal Steam	11.42	11.42	11.50	11.50	11.50	11.50	11.50	11.50	12.62	13.60	13.93	14.81	14.81
Other Fossil Steam 2/	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Combined Cycle	2.32	3.83	4.38	4.38	4.38	4.38	4.38	4.38	4.14	4.87	4.87	4.87	6.10
Combustion Turbine/Diesel	1.59	2.47	2.47	2.48	3.03	3.03	3.03	3.03	2.77	2.77	2.77	2.77	3.00
Nuclear Power	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	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/	36.46	36.59	36.70	36.70	36.71	36.71	36.76	36.91	37.04	37.31	37.47	37.64	37.82
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.07	0.13
Total Capacity	53.92	56.45	57.18	57.19	57.74	57.75	57.80	57.95	58.73	60.70	61.22	62.32	64.01
<b>Cumulative Planned Additions 6/</b>													
Coal Steam	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
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	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
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	0.12	0.12	0.12	0.12	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	0.74	0.74	1.30	1.30	1.35	1.35	1.36	1.36	1.37	1.37	1.38
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12	2.10	2.43	3.32	3.32
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	0.73	0.73	0.73	1.95
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	0.15	0.27	0.56	0.72	0.89	1.06
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.07	0.13
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	1.40	3.39	3.91	5.01	6.69
Cumulative Total Additions	0.00	0.00	0.74	0.74	1.30	1.30	1.35	1.50	2.75	4.75	5.27	6.38	8.07
<b>Cumulative Retirements 7/</b>													
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	0.00	0.00	0.00
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	0.23	0.23	0.23
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.26	0.26	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	0.02	0.03	0.03	0.03
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.51	0.51	0.51	0.51

Table 70. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / Northwest Power Pool Area

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Natural Gas	0.16	0.16	0.16	0.16	0.17	0.18	0.18	0.19	0.19	0.20	0.21	0.21	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/	0.32	0.33	0.34	0.36	0.38	0.40	0.41	0.42	0.43	0.45	0.47	0.49	0.50
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	0.58	0.59	0.60	0.63	0.66	0.68	0.70	0.71	0.73	0.76	0.78	0.81	0.83
Other End Use Generators	0.08	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.11	0.11	0.11	0.11	0.11
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	64.59	62.53	72.04	72.88	73.59	74.38	75.36	76.61	77.43	78.62	79.91	81.52	82.78
Commercial/Other	63.44	60.81	70.15	71.51	73.98	76.23	78.42	80.74	83.18	85.87	88.75	92.00	95.75
Industrial	70.48	72.03	79.99	81.69	85.15	86.83	88.20	89.32	90.37	91.66	93.10	94.78	96.46
Transportation	1.60	1.61	1.87	1.93	1.99	2.05	2.10	2.15	2.20	2.25	2.31	2.36	2.42
Total Sales	200.10	196.99	224.04	228.02	234.71	239.48	244.07	248.80	253.18	258.39	264.07	270.68	277.42
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	6.72	8.04	7.12	1.65	1.69	1.70	1.77	2.39	1.94	1.54	1.40	1.23	1.73
Gross International Exports	8.23	5.58	9.52	13.24	13.26	13.29	13.32	13.34	13.37	12.43	11.47	10.50	9.53
Gross Interregional Electricity Imports	26.48	25.65	25.92	23.37	19.65	18.91	19.16	19.25	19.13	16.68	15.22	13.08	11.23
Gross Interregional Electricity Exports	33.71	45.18	29.57	32.83	29.16	27.07	25.68	24.01	21.25	26.30	24.73	24.00	24.12
Purchases from Combined Heat and Power 8	0.44	0.48	0.50	0.54	0.57	0.63	0.67	0.72	0.78	0.85	0.91	0.97	1.02
Electric Power Sector Generation for Custom	205.02	224.19	246.26	265.35	272.64	276.18	279.24	281.84	284.12	296.49	301.42	308.85	316.32
Total Net Energy for Load	196.72	207.60	240.72	244.84	252.12	257.06	261.84	266.84	271.35	276.83	282.76	289.63	296.64
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	74.75	70.81	82.50	81.36	83.47	85.32	86.93	86.93	95.28	102.55	105.03	111.60	111.60
Petroleum	1.84	0.56	0.40	0.31	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Natural Gas	21.99	12.77	17.38	19.36	24.49	26.17	27.32	28.65	28.20	24.99	26.14	25.82	32.12
Nuclear	8.25	9.05	8.90	9.02	9.06	9.06	9.06	9.06	2.34	9.14	9.14	9.14	9.14
Pumped Storage/Other 3/	0.00	0.28	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/	99.16	131.98	139.00	157.29	157.30	157.30	157.60	158.87	159.87	161.38	162.68	163.86	165.02
Total Generation	205.99	225.45	248.19	267.34	274.63	278.18	281.25	283.84	286.02	298.39	303.32	310.75	318.22
Sales to Customers	205.02	224.19	246.26	265.35	272.64	276.18	279.24	281.84	284.12	296.49	301.42	308.85	316.32
Generation for Own Use	0.97	1.27	1.93	1.99	1.99	2.00	2.00	2.00	1.90	1.90	1.90	1.90	1.90
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.06
<b>Combined Heat and Power</b>													
Coal	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Petroleum	0.11	0.10	0.11	0.11	0.17	0.19	0.20	0.21	0.23	0.25	0.26	0.27	0.28
Natural Gas	1.35	1.38	1.37	1.40	1.46	1.53	1.57	1.63	1.71	1.78	1.85	1.92	1.98
Other Gaseous Fuels	0.08	0.10	0.12	0.12	0.16	0.17	0.17	0.18	0.18	0.19	0.20	0.20	0.21
Renewable Sources 4/	0.50	0.52	0.53	0.56	0.59	0.61	0.62	0.63	0.65	0.67	0.69	0.72	0.74
Other	0.39	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
Total	2.75	2.94	2.96	3.03	3.22	3.33	3.40	3.49	3.60	3.72	3.84	3.95	4.04
Other End Use Generators	0.06	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09



Table 70. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / Northwest Power Pool Area

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	0.44	0.48	0.50	0.54	0.57	0.63	0.67	0.72	0.78	0.85	0.91	0.97	1.02
Generation for Own Use	2.37	2.53	2.54	2.57	2.73	2.78	2.81	2.85	2.90	2.96	3.01	3.06	3.11
Total Electricity Generation	208.80	228.46	251.23	270.45	277.93	281.59	284.73	287.41	289.71	302.20	307.25	314.81	322.41
End-Use Prices (2002 cents per kilowatthour)													
Residential	6.3	6.8	6.3	6.4	6.4	6.4	6.5	6.6	6.9	6.8	6.9	6.9	6.9
Commercial	5.7	6.3	6.3	6.0	6.1	6.1	6.2	6.3	6.6	6.5	6.6	6.6	6.6
Industrial	4.4	4.5	3.6	3.6	3.7	3.7	3.9	4.0	4.3	4.2	4.4	4.4	4.4
Transportation	5.8	6.2	5.9	5.8	5.9	5.9	5.9	6.0	6.3	6.2	6.3	6.3	6.3
All Sectors Average	5.5	5.9	5.3	5.3	5.3	5.3	5.4	5.6	5.9	5.8	5.9	5.9	6.0
Prices by Service Category (2002 cents per kilowatthour)													
Generation	2.9	3.2	2.8	2.8	2.9	2.9	3.0	3.1	3.4	3.3	3.4	3.4	3.5
Transmission	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9
Distribution	1.8	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6
Fuel Consumption (quadrillion Btu) 9/													
Coal	0.80	0.77	0.88	0.87	0.89	0.91	0.93	0.93	1.01	1.07	1.09	1.15	1.15
Natural Gas	0.21	0.12	0.16	0.18	0.22	0.24	0.25	0.26	0.23	0.20	0.21	0.21	0.25
Oil	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.90	1.05	1.06	1.12	1.15	1.18	1.19	1.24	1.28	1.31	1.36	1.40
Emissions (million tons) 10/													
Total Carbon	29.02	27.31	27.95	27.88	29.20	29.97	30.62	30.80	32.58	33.92	34.68	36.30	36.90
Carbon Dioxide	106.42	100.13	102.48	102.22	107.08	109.90	112.28	112.93	119.44	124.36	127.16	133.09	135.30
Sulfur Dioxide	0.16	0.14	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Nitrogen Oxide	0.13	0.12	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18

Table 70. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / Northwest Power Pool Area

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	15.61	16.75	18.67	20.93	20.93	22.10	23.44	24.96	26.60	29.24	29.72	31.47	4.5%
Other Fossil Steam 2/	0.72	0.72	0.72	0.72	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	-0.1%
Combined Cycle	6.99	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	3.0%
Combustion Turbine/Diesel	3.00	3.18	3.18	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.22	1.1%
Nuclear Power	1.12	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	0.31	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	0.00	N/A
Renewable Sources 4/	37.91	38.04	38.10	38.34	38.40	38.50	38.58	38.64	38.69	38.70	38.83	39.39	0.3%
Distributed Generation 5/	0.19	0.41	0.48	0.72	0.79	1.02	1.26	1.49	1.57	1.65	1.73	1.81	N/A
<b>Total Capacity</b>	<b>65.84</b>	<b>68.10</b>	<b>70.15</b>	<b>73.39</b>	<b>73.51</b>	<b>75.01</b>	<b>76.66</b>	<b>78.48</b>	<b>80.25</b>	<b>82.97</b>	<b>83.66</b>	<b>85.59</b>	<b>1.8%</b>
<b>Cumulative Planned Additions 6/</b>													
Coal Steam	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	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	0.00	N/A
Combined Cycle	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	N/A
Combustion Turbine/Diesel	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	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	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	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	0.00	N/A
Renewable Sources 4/	0.21	0.22	0.22	0.23	0.24	0.24	0.25	0.26	0.26	0.27	0.27	0.28	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	0.00	N/A
<b>Total Planned Additions</b>	<b>1.39</b>	<b>1.39</b>	<b>1.40</b>	<b>1.40</b>	<b>1.41</b>	<b>1.42</b>	<b>1.42</b>	<b>1.43</b>	<b>1.44</b>	<b>1.44</b>	<b>1.45</b>	<b>1.46</b>	<b>N/A</b>
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	4.11	5.25	7.18	9.44	9.44	10.60	11.94	13.47	15.11	17.74	18.22	19.97	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	0.00	N/A
Combined Cycle	2.84	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	N/A
Combustion Turbine/Diesel	0.22	0.41	0.41	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	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	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	0.00	N/A
Renewable Sources 4/	1.14	1.27	1.32	1.56	1.61	1.71	1.77	1.82	1.87	1.88	2.00	2.56	N/A
Distributed Generation 5/	0.19	0.41	0.48	0.72	0.79	1.02	1.26	1.49	1.57	1.65	1.73	1.81	N/A
<b>Total Unplanned Additions</b>	<b>8.51</b>	<b>10.76</b>	<b>12.81</b>	<b>16.05</b>	<b>16.17</b>	<b>17.66</b>	<b>19.30</b>	<b>21.12</b>	<b>22.88</b>	<b>25.60</b>	<b>26.28</b>	<b>28.66</b>	<b>N/A</b>
<b>Cumulative Total Additions</b>	<b>9.90</b>	<b>12.15</b>	<b>14.21</b>	<b>17.45</b>	<b>17.58</b>	<b>19.08</b>	<b>20.72</b>	<b>22.55</b>	<b>24.32</b>	<b>27.04</b>	<b>27.73</b>	<b>30.12</b>	<b>N/A</b>
<b>Cumulative Retirements 7/</b>													
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	N/A
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	N/A
Combined Cycle	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	N/A
Combustion Turbine/Diesel	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.71	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	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	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	0.00	N/A
Renewable Sources 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	N/A
<b>Total</b>	<b>0.51</b>	<b>0.51</b>	<b>0.51</b>	<b>0.51</b>	<b>0.52</b>	<b>0.52</b>	<b>0.52</b>	<b>0.52</b>	<b>0.52</b>	<b>0.52</b>	<b>0.52</b>	<b>0.98</b>	<b>N/A</b>

Table 70. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / Northwest Power Pool Area

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
<b>Combined Heat and Power 8/</b>														
<b>Capacity</b>														
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	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	0.01	0.01	3.8%
Natural Gas	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.28	0.28	0.29	0.30	0.31	0.31	3.0%
Other Gaseous Fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	1.8%
Renewable Sources 4/	0.52	0.54	0.55	0.56	0.58	0.59	0.60	0.61	0.62	0.64	0.65	0.66	0.66	3.0%
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	0.86	0.88	0.90	0.92	0.94	0.96	0.98	1.00	1.02	1.04	1.06	1.09	1.09	2.7%
Other End Use Generators	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.14	0.14	0.15	0.16	0.17	0.17	3.1%
<b>Electricity Demand</b> (billion kilowatthours)														
Residential	84.11	85.34	86.67	87.60	88.76	90.13	91.70	92.63	93.82	95.09	96.59	97.64	97.64	2.0%
Commercial/Other	99.30	102.58	105.60	108.79	112.04	115.43	118.79	122.13	125.45	129.01	132.66	136.58	136.58	3.6%
Industrial	98.01	99.51	101.08	102.93	104.85	106.40	108.05	109.69	111.74	114.00	116.29	118.82	118.82	2.2%
Transportation	2.48	2.54	2.60	2.67	2.73	2.80	2.87	2.94	3.02	3.09	3.17	3.24	3.24	3.1%
Total Sales	283.89	289.97	295.95	301.98	308.39	314.77	321.42	327.40	334.03	341.18	348.70	356.27	356.27	2.6%
<b>Net Energy for Load (billion kilowatthours) 7/</b>														
Gross International Imports	1.95	1.60	1.41	0.40	0.55	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Gross International Exports	8.56	7.60	6.63	5.66	4.70	4.21	3.73	3.73	3.73	3.73	3.73	3.73	3.73	-1.7%
Gross Interregional Electricity Imports	9.47	7.91	6.40	4.42	3.00	2.13	1.09	0.90	0.58	0.12	0.12	0.00	0.00	-36.0%
Gross Interregional Electricity Exports	24.86	26.04	27.60	32.08	32.44	30.36	36.64	41.74	44.41	47.13	45.00	47.36	47.36	0.2%
Purchases from Combined Heat and Power 8	1.07	1.11	1.15	1.20	1.26	1.33	1.39	1.44	1.48	1.53	1.58	1.64	1.64	5.5%
Electric Power Sector Generation for Custom	323.98	332.24	340.86	353.67	361.10	366.57	380.41	391.94	402.00	412.81	418.69	429.18	429.18	2.9%
Total Net Energy for Load	303.05	309.23	315.60	321.95	328.78	335.53	342.52	348.81	355.93	363.60	371.66	379.73	379.73	2.7%
<b>Generation by Fuel Type</b> (billion kilowatthours)														
Coal	117.48	125.98	140.30	156.69	157.00	165.49	175.28	186.09	197.43	212.88	217.21	228.42	228.42	5.2%
Petroleum	0.90	0.95	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	-2.3%
Natural Gas	32.67	31.51	25.99	20.97	27.62	23.70	27.17	27.44	25.73	21.03	21.79	18.22	18.22	1.6%
Nuclear	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	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	0.00	0.00	N/A
Renewable Sources 4/	165.70	166.56	167.01	168.44	168.90	169.80	170.38	170.83	171.27	171.33	172.11	174.79	174.79	1.2%
Total Generation	325.88	334.15	342.76	355.57	362.99	368.46	382.30	393.84	403.90	414.71	420.59	430.90	430.90	2.9%
Sales to Customers	323.98	332.24	340.86	353.67	361.10	366.57	380.41	391.94	402.00	412.81	418.69	429.18	429.18	2.9%
Generation for Own Use	1.90	1.90	1.90	1.90	1.89	1.90	1.90	1.90	1.90	1.90	1.90	1.72	1.72	1.3%
Distributed Generation 5/	0.08	0.18	0.21	0.32	0.35	0.45	0.55	0.65	0.69	0.72	0.76	0.79	0.79	N/A
<b>Combined Heat and Power</b>														
Coal	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.0%
Petroleum	0.29	0.30	0.30	0.31	0.32	0.34	0.35	0.36	0.36	0.36	0.36	0.36	0.36	5.6%
Natural Gas	2.04	2.10	2.16	2.23	2.32	2.40	2.49	2.57	2.66	2.75	2.85	2.95	2.95	3.4%
Other Gaseous Fuels	0.21	0.22	0.22	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.26	0.27	0.27	4.3%
Renewable Sources 4/	0.76	0.78	0.80	0.81	0.83	0.85	0.86	0.88	0.89	0.91	0.92	0.94	0.94	2.6%
Other	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.0%
Total	4.14	4.23	4.32	4.42	4.54	4.66	4.79	4.89	5.00	5.11	5.23	5.36	5.36	2.6%
Other End Use Generators	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11	1.9%

Table 70. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / Northwest Power Pool Area

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	1.07	1.11	1.15	1.20	1.26	1.33	1.39	1.44	1.48	1.53	1.58	1.64	5.5%
Generation for Own Use	3.16	3.21	3.26	3.31	3.37	3.43	3.49	3.55	3.62	3.68	3.75	3.83	1.8%
Total Electricity Generation	330.20	338.64	347.39	360.40	367.97	373.67	387.74	399.48	409.68	420.65	426.68	437.16	2.9%
End-Use Prices (2002 cents per kilowatthour)													
Residential	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.1	7.1	0.2%
Commercial	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.8	6.8	6.8	0.4%
Industrial	4.4	4.4	4.4	4.3	4.4	4.3	4.3	4.3	4.3	4.2	4.3	4.3	-0.2%
Transportation	6.4	6.3	6.3	6.3	6.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0.0%
All Sectors Average	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.1	0.1%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.6	3.5	3.6	3.6	0.5%
Transmission	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	1.0	1.0	0.7%
Distribution	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	-1.0%
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.20	1.27	1.39	1.53	1.54	1.61	1.69	1.79	1.88	2.01	2.05	2.15	4.5%
Natural Gas	0.25	0.24	0.20	0.17	0.21	0.19	0.21	0.21	0.20	0.17	0.18	0.14	0.8%
Oil	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-3.3%
Total	1.45	1.52	1.60	1.71	1.75	1.80	1.91	2.00	2.09	2.19	2.23	2.29	4.2%
Emissions (million tons) 10/													
Total Carbon	38.44	40.39	43.27	46.77	47.57	49.28	52.09	54.79	57.39	60.67	61.83	64.04	3.8%
Carbon Dioxide	140.94	148.09	158.65	171.49	174.41	180.70	191.01	200.91	210.43	222.45	226.69	234.80	3.8%
Sulfur Dioxide	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	-0.5%
Nitrogen Oxide	0.18	0.19	0.19	0.20	0.20	0.20	0.21	0.21	0.22	0.22	0.22	0.23	2.9%

Table 70. Electric Power Projections for EMM Region  
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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	15.61	15.61	15.61	15.61	15.61	15.50	15.50	15.50	15.50	15.50	15.50	15.50	16.86
Other Fossil Steam 2/	2.79	2.79	2.68	2.68	2.68	2.64	2.64	2.64	2.14	2.05	1.40	1.40	1.40
Combined Cycle	5.12	8.85	14.97	16.07	16.07	16.07	16.07	16.07	15.69	15.69	15.69	15.69	15.69
Combustion Turbine/Diesel	3.39	5.21	5.64	5.64	5.64	5.64	5.64	5.64	4.43	4.43	4.43	4.43	4.43
Nuclear Power	2.71	2.71	2.73	2.73	2.75	2.75	2.78	2.78	2.78	2.78	2.78	2.78	2.78
Pumped Storage/Other 3/	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
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/	6.12	6.13	6.66	6.67	6.82	6.87	6.89	6.92	6.97	7.00	7.05	7.08	7.22
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	36.49	42.04	49.04	50.15	50.32	50.22	50.27	50.30	48.25	48.19	47.60	47.62	49.12
<b>Cumulative Planned Additions 6/</b>													
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	6.12	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23
Combustion Turbine/Diesel	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
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	0.53	0.54	0.69	0.74	0.77	0.80	0.85	0.88	0.93	0.96	1.00
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	7.09	8.20	8.35	8.40	8.43	8.45	8.51	8.53	8.59	8.61	8.66
<b>Cumulative Unplanned Additions 6/</b>													
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	1.36
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	0.09
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	1.45
Cumulative Total Additions	0.00	0.00	7.09	8.20	8.35	8.40	8.43	8.45	8.51	8.53	8.59	8.61	10.11
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Other Fossil Steam 3/	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.54	0.63	1.28	1.28	1.28
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.38	0.38	0.38	0.38
Combustion Turbine/Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.21	1.21	1.21	1.21	1.21
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	0.00	0.00	0.00	0.00	0.01	0.16	0.16	0.16	2.25	2.34	2.99	2.99	2.99

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.06	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11
Other Gaseous Fuels	0.00	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
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	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18
Other End Use Generators	0.00	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>Electricity Demand (billion kilowatthours)</b>													
Residential	56.18	58.68	59.26	59.83	60.72	61.83	63.15	64.74	65.99	67.55	69.00	70.59	71.74
Commercial/Other	60.00	59.91	59.54	60.60	62.47	64.20	66.08	68.23	70.66	73.38	76.14	78.80	81.47
Industrial	33.01	34.36	33.07	33.78	34.80	35.73	36.31	36.90	37.28	37.81	38.38	39.03	39.70
Transportation	0.93	0.97	0.98	1.01	1.05	1.08	1.12	1.15	1.18	1.22	1.25	1.29	1.33
Total Sales	150.13	153.91	152.84	155.23	159.05	162.84	166.66	171.01	175.11	179.96	184.76	189.72	194.24
<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	21.14	17.92	18.60	17.28	20.35	20.22	20.44	20.30	19.77	18.15	16.54	14.66	11.81
Gross Interregional Electricity Exports	66.95	48.18	69.37	48.56	52.93	54.95	57.55	60.00	59.73	49.88	48.34	45.23	45.55
Purchases from Combined Heat and Power 8	0.15	0.16	0.17	0.17	0.18	0.19	0.21	0.22	0.24	0.26	0.28	0.29	0.31
Electric Power Sector Generation for Custom	201.99	199.63	217.52	200.50	205.80	211.80	218.18	225.19	229.72	226.62	231.74	235.65	243.41
Total Net Energy for Load	156.34	169.54	166.92	169.39	173.40	177.26	181.27	185.72	190.00	195.15	200.22	205.38	209.97
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	127.69	124.14	115.09	113.43	115.93	117.27	119.10	119.10	119.10	119.10	119.10	119.10	129.20
Petroleum	0.58	0.13	1.02	0.95	0.95	0.97	0.97	0.98	0.26	0.26	0.26	0.26	0.30
Natural Gas	37.18	39.86	64.07	46.31	48.31	52.55	56.66	63.49	68.28	64.95	69.83	73.54	70.47
Nuclear	20.85	22.40	22.29	22.50	22.73	22.73	22.95	22.95	22.95	22.95	22.95	22.95	22.95
Pumped Storage/Other 3/	0.03	-0.10	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22
Renewable Sources 4/	16.95	15.57	18.78	21.07	21.66	22.07	22.30	22.50	22.81	23.04	23.29	23.50	24.19
Total Generation	203.28	202.02	221.02	204.04	209.37	215.38	221.76	228.79	233.18	230.08	235.20	239.12	246.89
Sales to Customers	201.99	199.63	217.52	200.50	205.80	211.80	218.18	225.19	229.72	226.62	231.74	235.65	243.41
Generation for Own Use	1.28	2.38	3.50	3.54	3.56	3.58	3.59	3.60	3.45	3.46	3.46	3.47	3.48
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>Combined Heat and Power</b>													
Coal	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Petroleum	0.03	0.02	0.03	0.03	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.07	0.07
Natural Gas	0.56	0.57	0.57	0.59	0.61	0.64	0.66	0.68	0.71	0.74	0.77	0.80	0.82
Other Gaseous Fuels	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.04	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
Total	0.92	0.93	0.93	0.95	1.00	1.03	1.05	1.08	1.12	1.16	1.19	1.22	1.25
Other End Use Generators	0.00	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 EMM Region  
 Western Electricity Coordinating Council / Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	0.15	0.16	0.17	0.17	0.18	0.19	0.21	0.22	0.24	0.26	0.28	0.29	0.31
Generation for Own Use	0.77	0.77	0.77	0.77	0.82	0.84	0.85	0.86	0.88	0.89	0.91	0.93	0.94
Total Electricity Generation	204.20	202.95	221.95	204.99	210.36	216.41	222.82	229.87	234.29	231.23	236.39	240.35	248.14
End-Use Prices (2002 cents per kilowatthour)													
Residential	8.4	8.3	8.3	8.3	8.6	8.5	8.3	8.3	8.2	8.1	8.1	8.1	8.2
Commercial	7.1	7.1	7.1	7.1	7.2	7.1	7.0	6.9	6.8	6.7	6.7	6.8	6.8
Industrial	5.3	5.4	4.8	5.1	5.2	5.2	5.1	5.1	5.1	4.9	5.0	5.0	5.0
Transportation	7.0	7.0	6.9	7.3	7.5	7.4	7.3	7.2	7.2	7.1	7.1	7.2	7.3
All Sectors Average	7.1	7.1	7.0	7.1	7.3	7.2	7.1	7.1	7.0	6.8	6.9	6.9	7.0
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.5	4.5	4.5	4.5	4.7	4.6	4.5	4.5	4.4	4.3	4.3	4.4	4.5
Transmission	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Distribution	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8
Fuel Consumption (quadrillion Btu) 9/													
Coal	1.34	1.31	1.20	1.19	1.21	1.23	1.25	1.25	1.25	1.25	1.25	1.25	1.34
Natural Gas	0.36	0.34	0.52	0.39	0.41	0.44	0.47	0.52	0.56	0.53	0.57	0.60	0.57
Oil	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Total	1.71	1.65	1.73	1.58	1.63	1.68	1.73	1.78	1.81	1.78	1.82	1.85	1.91
Emissions (million tons) 10/													
Total Carbon	45.22	41.00	42.57	40.00	41.04	42.00	43.05	43.93	44.26	43.84	44.45	44.93	46.99
Carbon Dioxide	165.82	150.32	156.07	146.67	150.48	153.99	157.85	161.08	162.29	160.76	163.00	164.74	172.30
Sulfur Dioxide	0.13	0.13	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Nitrogen Oxide	0.30	0.28	0.22	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.23



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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	18.19	20.56	20.56	23.09	23.09	23.83	25.05	26.34	27.66	28.94	29.76	30.79	3.0%
Other Fossil Steam 2/	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	-3.0%
Combined Cycle	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	2.5%
Combustion Turbine/Diesel	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	-0.7%
Nuclear Power	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	0.1%
Pumped Storage/Other 3/	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	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	0.00	N/A
Renewable Sources 4/	7.27	7.31	7.32	7.32	7.32	7.38	7.43	7.43	7.44	7.44	7.58	7.75	1.0%
Distributed Generation 5/	0.02	0.05	0.07	0.13	0.15	0.21	0.27	0.33	0.39	0.45	0.48	0.50	N/A
Total Capacity	50.52	52.96	52.98	55.57	55.60	56.46	57.78	59.14	60.53	61.87	62.85	64.08	1.8%
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	N/A
Combustion Turbine/Diesel	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	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	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	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	0.00	N/A
Renewable Sources 4/	1.05	1.10	1.10	1.10	1.11	1.11	1.11	1.12	1.12	1.12	1.13	1.13	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	0.00	N/A
Total Planned Additions	8.71	8.75	8.75	8.76	8.76	8.76	8.77	8.77	8.78	8.78	8.78	8.79	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	2.68	5.06	5.06	7.59	7.59	8.33	9.54	10.84	12.16	13.43	14.25	15.29	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	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	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	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	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	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	0.00	N/A
Renewable Sources 4/	0.09	0.09	0.09	0.09	0.09	0.14	0.19	0.19	0.19	0.19	0.33	0.50	N/A
Distributed Generation 5/	0.02	0.05	0.07	0.13	0.15	0.21	0.27	0.33	0.39	0.45	0.48	0.50	N/A
Total Unplanned Additions	2.80	5.20	5.22	7.81	7.83	8.68	10.01	11.36	12.74	14.08	15.06	16.29	N/A
Cumulative Total Additions	11.51	13.95	13.97	16.56	16.59	17.44	18.77	20.13	21.52	22.86	23.84	25.07	N/A
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	N/A
Other Fossil Steam 3/	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	N/A
Combined Cycle	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	N/A
Combustion Turbine/Diesel	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	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	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	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	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	0.01	N/A
Total	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	N/A

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
<b>Combined Heat and Power 8/</b>														
<b>Capacity</b>														
Coal	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	0.0%
Petroleum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Natural Gas	0.12	0.12	0.12	0.13	0.13	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.16	3.0%
Other Gaseous Fuels	0.00	0.00	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	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	0.00	0.00	N/A
Total	0.18	0.18	0.19	0.19	0.20	0.20	0.20	0.21	0.21	0.22	0.22	0.23	0.23	1.9%
Other End Use Generators	0.00	0.00	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>Electricity Demand</b> (billion kilowatthours)														
Residential	73.12	74.56	76.16	77.45	78.88	80.52	82.32	83.57	85.06	86.69	88.52	89.97	89.97	1.9%
Commercial/Other	84.18	86.89	89.45	92.32	95.23	98.21	101.10	103.95	106.70	109.82	113.00	116.59	116.59	2.9%
Industrial	40.31	40.90	41.50	42.22	42.98	43.52	44.12	44.70	45.47	46.34	47.22	48.16	48.16	1.5%
Transportation	1.37	1.41	1.45	1.50	1.54	1.59	1.64	1.68	1.73	1.78	1.84	1.89	1.89	3.0%
Total Sales	198.99	203.76	208.56	213.48	218.63	223.85	229.19	233.91	238.97	244.63	250.57	256.62	256.62	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	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	0.00	0.00	N/A
Gross Interregional Electricity Imports	9.95	8.06	6.69	4.71	3.99	2.78	2.41	2.71	3.44	4.14	3.78	3.88	3.88	-6.4%
Gross Interregional Electricity Exports	44.27	46.14	38.19	37.70	36.40	37.24	36.35	35.46	36.01	34.49	34.55	34.30	34.30	-1.5%
Purchases from Combined Heat and Power 8	0.32	0.33	0.35	0.36	0.38	0.40	0.42	0.44	0.45	0.47	0.49	0.51	0.51	5.1%
Electric Power Sector Generation for Custom	248.86	257.48	256.07	263.12	268.03	275.62	280.77	284.59	289.78	293.60	300.35	306.47	306.47	1.9%
Total Net Energy for Load	214.86	219.74	224.92	230.49	236.00	241.55	247.25	252.28	257.67	263.72	270.07	276.56	276.56	2.2%
<b>Generation by Fuel Type</b> (billion kilowatthours)														
Coal	139.05	156.69	156.67	174.90	175.32	180.65	188.63	197.01	205.47	213.37	218.81	225.24	225.24	2.6%
Petroleum	0.34	0.36	0.36	0.34	0.31	0.26	0.29	0.33	0.33	0.32	0.32	0.17	0.17	1.0%
Natural Gas	65.78	56.49	55.02	43.85	48.36	50.26	47.00	42.37	39.07	35.00	35.58	34.58	34.58	-0.6%
Nuclear	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	0.1%
Pumped Storage/Other 3/	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	3.5%
Renewable Sources 4/	24.45	24.72	24.79	24.80	24.81	25.21	25.62	25.65	25.68	25.69	26.42	27.26	27.26	2.5%
Total Generation	252.35	260.98	259.57	266.62	271.53	279.12	284.27	288.09	293.28	297.10	303.85	309.97	309.97	1.9%
Sales to Customers	248.86	257.48	256.07	263.12	268.03	275.62	280.77	284.59	289.78	293.60	300.35	306.47	306.47	1.9%
Generation for Own Use	3.49	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	1.7%
Distributed Generation 5/	0.01	0.02	0.03	0.06	0.06	0.09	0.12	0.14	0.17	0.20	0.21	0.22	0.22	N/A
<b>Combined Heat and Power</b>														
Coal	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.0%
Petroleum	0.07	0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	5.6%
Natural Gas	0.85	0.87	0.90	0.93	0.97	1.00	1.04	1.07	1.11	1.15	1.19	1.23	1.23	3.4%
Other Gaseous Fuels	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	4.3%
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	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	0.00	0.00	0.0%
Total	1.28	1.31	1.34	1.37	1.41	1.45	1.49	1.53	1.57	1.60	1.65	1.69	1.69	2.6%
Other End Use Generators	0.00	0.00	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 EMM Region  
 Western Electricity Coordinating Council / Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	0.32	0.33	0.35	0.36	0.38	0.40	0.42	0.44	0.45	0.47	0.49	0.51	5.1%
Generation for Own Use	0.96	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.11	1.14	1.16	1.19	1.9%
<b>Total Electricity Generation</b>	<b>253.64</b>	<b>262.31</b>	<b>260.94</b>	<b>268.04</b>	<b>273.00</b>	<b>280.66</b>	<b>285.88</b>	<b>289.76</b>	<b>295.02</b>	<b>298.91</b>	<b>305.70</b>	<b>311.88</b>	<b>1.9%</b>
<b>End-Use Prices</b> (2002 cents per kilowatthour)													
Residential	8.3	8.3	8.3	8.2	8.2	8.1	8.1	8.1	8.1	8.0	8.1	8.0	-0.2%
Commercial	6.9	6.9	6.9	6.8	6.9	6.7	6.8	6.8	6.9	6.8	6.9	6.9	-0.1%
Industrial	5.1	5.0	5.0	4.9	5.0	4.8	4.8	4.9	4.8	4.7	4.8	4.7	-0.6%
Transportation	7.3	7.3	7.3	7.1	7.2	7.0	7.0	7.1	7.0	6.9	7.0	6.9	-0.1%
All Sectors Average	7.0	7.0	7.0	6.9	7.0	6.9	6.9	6.9	6.9	6.8	6.9	6.9	-0.2%
<b>Prices by Service Category</b> (2002 cents per kilowatthour)													
Generation	4.5	4.5	4.5	4.4	4.4	4.3	4.3	4.4	4.4	4.3	4.4	4.3	-0.2%
Transmission	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6%
Distribution	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	-0.7%
<b>Fuel Consumption (quadrillion Btu) 9/</b>													
Coal	1.42	1.57	1.57	1.73	1.73	1.78	1.84	1.91	1.98	2.05	2.09	2.14	2.2%
Natural Gas	0.53	0.46	0.45	0.37	0.40	0.42	0.39	0.36	0.33	0.30	0.30	0.30	-0.6%
Oil	0.00	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	1.96	2.04	2.03	2.09	2.13	2.19	2.24	2.27	2.32	2.35	2.40	2.44	1.7%
<b>Emissions (million tons) 10/</b>													
Total Carbon	48.78	51.86	51.67	54.60	55.30	56.76	58.23	59.59	61.12	62.44	63.81	65.18	2.0%
Carbon Dioxide	178.86	190.14	189.47	200.21	202.75	208.14	213.49	218.48	224.11	228.96	233.98	239.01	2.0%
Sulfur Dioxide	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.0%
Nitrogen Oxide	0.23	0.24	0.24	0.25	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	-0.3%

Table 71. Electric Power Projections for EMM Region  
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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 72. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / California

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/</b>													
<b>(gigawatts)</b>													
Coal Steam	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	5.19	6.66	7.27	8.18	8.96
Other Fossil Steam 2/	19.67	19.55	18.52	18.52	18.52	18.52	18.52	18.52	18.34	18.34	18.34	18.34	18.34
Combined Cycle	3.93	6.19	8.87	9.98	10.51	10.51	10.51	10.51	10.51	10.51	10.51	10.51	10.51
Combustion Turbine/Diesel	6.02	6.98	7.90	7.90	7.89	7.89	7.89	7.89	7.89	7.89	7.89	7.95	8.60
Nuclear Power	5.35	5.35	5.36	5.36	5.36	5.36	5.37	5.37	5.37	5.37	5.37	5.37	5.37
Pumped Storage/Other 3/	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73
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/	15.33	15.47	15.72	15.69	15.77	16.16	16.45	16.69	16.80	16.90	17.08	17.28	17.48
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.13
Total Capacity	58.66	61.90	64.73	65.81	66.41	66.79	67.10	67.34	67.83	69.40	70.22	71.42	73.12
<b>Cumulative Planned Additions 6/</b>													
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	2.68	3.79	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32
Combustion Turbine/Diesel	0.00	0.00	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
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	0.25	0.32	0.41	0.79	1.00	1.21	1.21	1.21	1.22	1.22	1.23
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	3.97	5.16	5.77	6.16	6.36	6.57	6.57	6.58	6.58	6.59	6.59
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	2.03	2.64	3.55	4.33
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	0.06	0.71
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	0.09	0.12	0.22	0.33	0.50	0.69	0.89
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.13
Total Unplanned Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.12	0.79	2.36	3.17	4.36	6.06
Cumulative Total Additions	0.00	0.00	3.97	5.16	5.77	6.16	6.45	6.69	7.36	8.93	9.75	10.95	12.65
<b>Cumulative Retirements 7/</b>													
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	0.18	0.18	0.18	0.18	0.18
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	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
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	0.00	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	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Total	0.00	0.00	0.00	0.11	0.13	0.13	0.13	0.13	0.30	0.30	0.30	0.30	0.30

Table 72. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / California

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	0.09	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Petroleum	0.11	0.10	0.10	0.10	0.13	0.14	0.14	0.15	0.16	0.18	0.19	0.19	0.20
Natural Gas	2.37	2.40	2.42	2.48	2.57	2.67	2.74	2.82	2.92	3.03	3.12	3.22	3.30
Other Gaseous Fuels	0.17	0.19	0.19	0.19	0.22	0.23	0.23	0.23	0.24	0.24	0.25	0.25	0.25
Renewable Sources 4/	0.15	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.20	0.21	0.22	0.22	0.23
Other	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
Total	2.93	3.00	3.02	3.09	3.25	3.37	3.45	3.54	3.67	3.80	3.92	4.03	4.13
Other End Use Generators	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
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	73.73	72.12	73.58	74.52	75.05	75.60	76.29	77.22	77.73	78.59	79.68	81.16	82.36
Commercial/Other	98.57	96.59	99.57	101.65	105.41	108.81	111.90	114.97	118.05	121.35	125.06	129.72	135.49
Industrial	56.66	59.98	59.32	60.59	63.59	64.57	65.57	66.26	67.10	68.07	69.17	70.46	71.75
Transportation	2.02	2.11	2.17	2.24	2.30	2.36	2.41	2.46	2.51	2.57	2.63	2.69	2.75
Total Sales	230.98	230.80	234.64	238.99	246.36	251.33	256.16	260.92	265.39	270.57	276.55	284.03	292.34
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	0.00	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	0.30	1.31	1.32	1.36	1.41	1.46	1.51	1.56	1.61	1.67	1.67	1.67	1.67
Gross Interregional Electricity Imports	78.95	71.96	76.76	60.16	60.39	60.42	61.21	61.97	59.01	56.64	55.45	53.69	55.85
Gross Interregional Electricity Exports	11.01	11.00	10.09	8.41	7.97	8.04	8.21	8.41	8.29	7.17	6.37	5.63	4.78
Purchases from Combined Heat and Power 8	3.32	3.43	3.54	3.79	3.79	4.16	4.46	4.79	5.18	5.59	5.96	6.32	6.64
Electric Power Sector Generation for Custom	207.70	187.83	186.14	205.34	212.46	217.33	221.45	225.49	232.52	238.72	245.03	253.49	258.82
Total Net Energy for Load	278.66	251.06	255.04	259.52	267.28	272.42	277.42	282.29	286.82	292.12	298.41	306.20	314.87
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	27.62	27.34	34.33	33.72	34.42	35.13	35.75	35.75	39.95	50.80	55.35	62.13	67.87
Petroleum	2.46	1.96	1.59	0.84	1.87	1.90	1.91	1.92	1.42	1.33	1.35	1.36	1.40
Natural Gas	98.24	72.22	61.14	76.15	80.86	82.94	84.17	86.80	88.94	83.50	84.14	84.63	83.01
Nuclear	41.09	42.80	42.33	42.82	43.08	43.14	43.29	43.36	43.42	43.49	43.56	43.62	43.69
Pumped Storage/Other 3/	-0.34	-0.17	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95
Renewable Sources 4/	42.25	48.03	54.85	59.98	60.45	62.49	64.68	66.08	67.17	67.97	69.01	70.11	71.23
Total Generation	211.32	192.18	193.30	212.57	219.73	224.66	228.86	232.96	239.94	246.14	252.46	260.92	266.25
Sales to Customers	207.70	187.83	186.14	205.34	212.46	217.33	221.45	225.49	232.52	238.72	245.03	253.49	258.82
Generation for Own Use	3.62	4.35	7.16	7.23	7.27	7.33	7.41	7.48	7.42	7.42	7.43	7.43	7.43
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.06
<b>Combined Heat and Power</b>													
Coal	0.43	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
Petroleum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Natural Gas	14.60	14.93	14.82	15.23	15.82	16.54	17.08	17.71	18.49	19.31	20.07	20.80	21.43
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/	0.68	0.71	0.73	0.77	0.80	0.83	0.85	0.87	0.89	0.92	0.95	0.98	1.01
Other	0.78	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Total	16.50	17.10	17.00	17.46	18.09	18.84	19.40	20.05	20.86	21.70	22.49	23.25	23.93
Other End Use Generators	0.08	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12

Table 72. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / California

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	3.32	3.43	3.54	3.79	3.79	4.16	4.46	4.79	5.18	5.59	5.96	6.32	6.64
Generation for Own Use	13.26	13.77	13.56	13.77	14.40	14.79	15.04	15.37	15.79	16.23	16.65	17.05	17.40
Total Electricity Generation	227.90	209.38	210.40	230.13	237.92	243.61	248.36	253.12	260.91	267.96	275.08	284.31	290.35
End-Use Prices (2002 cents per kilowatthour)													
Residential	12.9	13.0	12.6	12.6	12.6	12.5	12.4	12.3	12.2	12.1	11.7	11.3	10.7
Commercial	12.7	13.3	13.6	13.2	12.9	12.8	12.7	12.6	12.4	12.3	11.8	11.2	9.9
Industrial	10.0	10.9	8.6	8.6	8.5	8.4	8.3	8.2	8.1	8.0	7.7	7.2	6.2
Transportation	11.7	12.1	10.7	10.6	10.4	10.3	10.2	10.1	10.0	9.9	9.7	9.6	9.5
All Sectors Average	12.0	12.6	12.0	11.8	11.6	11.6	11.4	11.4	11.3	11.2	10.7	10.2	9.2
Prices by Service Category (2002 cents per kilowatthour)													
Generation	9.0	9.5	9.0	8.8	8.6	8.6	8.5	8.4	8.3	8.1	7.7	7.2	6.2
Transmission	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Distribution	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.3	2.3	2.3	2.3
Fuel Consumption (quadrillion Btu) 9/													
Coal	0.27	0.27	0.35	0.34	0.35	0.36	0.36	0.36	0.40	0.50	0.54	0.60	0.64
Natural Gas	1.00	0.68	0.58	0.70	0.74	0.75	0.76	0.79	0.80	0.76	0.77	0.77	0.76
Oil	0.03	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
Total	1.30	0.98	0.95	1.05	1.11	1.13	1.15	1.17	1.22	1.27	1.32	1.38	1.42
Emissions (million tons) 10/													
Total Carbon	20.52	19.96	19.43	20.99	22.03	22.50	22.84	23.18	24.36	26.28	27.51	29.25	30.43
Carbon Dioxide	75.24	73.20	71.24	76.97	80.78	82.51	83.75	85.00	89.32	96.37	100.85	107.26	111.56
Sulfur Dioxide	0.06	0.05	0.06	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07
Nitrogen Oxide	0.01	0.01	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.10

Table 72. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / California

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/ (gigawatts)</b>													
Coal Steam	9.77	9.77	11.89	11.89	11.89	11.89	11.89	11.89	12.54	14.39	15.55	16.80	5.8%
Other Fossil Steam 2/	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	-0.3%
Combined Cycle	10.51	10.82	10.82	11.54	12.54	12.54	12.54	12.54	12.54	12.54	12.54	12.54	3.1%
Combustion Turbine/Diesel	9.62	12.09	13.01	14.58	14.67	15.50	16.28	17.59	19.01	19.25	19.65	20.28	4.8%
Nuclear Power	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	0.0%
Pumped Storage/Other 3/	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	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	0.00	N/A
Renewable Sources 4/	17.76	18.25	18.45	18.53	18.63	19.03	20.71	21.80	21.86	21.92	22.03	22.22	1.6%
Distributed Generation 5/	0.21	0.31	0.67	1.04	1.39	1.72	2.04	2.36	2.69	3.02	3.35	3.69	N/A
Total Capacity	75.32	78.68	82.29	85.02	86.57	88.13	90.91	93.63	96.08	98.56	100.58	102.98	2.2%
<b>Cumulative Planned Additions 6/</b>													
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	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	0.00	N/A
Combined Cycle	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	N/A
Combustion Turbine/Diesel	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	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	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	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	0.00	N/A
Renewable Sources 4/	1.24	1.24	1.25	1.26	1.27	1.27	1.28	1.29	1.30	1.30	1.31	1.32	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	0.00	N/A
Total Planned Additions	6.60	6.61	6.61	6.62	6.63	6.64	6.64	6.65	6.66	6.67	6.67	6.68	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	5.14	5.14	7.26	7.26	7.26	7.26	7.26	7.26	7.91	9.76	10.92	12.17	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	0.00	N/A
Combined Cycle	0.00	0.31	0.31	1.03	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	N/A
Combustion Turbine/Diesel	1.73	4.20	5.12	6.69	6.79	7.61	8.39	9.70	11.12	11.36	11.77	12.40	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	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	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	0.00	N/A
Renewable Sources 4/	1.16	1.64	1.84	1.91	2.00	2.39	4.07	5.15	5.20	5.25	5.36	5.53	N/A
Distributed Generation 5/	0.21	0.31	0.67	1.04	1.39	1.72	2.04	2.36	2.69	3.02	3.35	3.69	N/A
Total Unplanned Additions	8.25	11.61	15.20	17.93	19.47	21.02	23.80	26.51	28.96	31.43	33.44	35.83	N/A
Cumulative Total Additions	14.85	18.22	21.82	24.55	26.10	27.66	30.44	33.16	35.62	38.09	40.11	42.51	N/A
<b>Cumulative Retirements 7/</b>													
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	N/A
Other Fossil Steam 3/	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	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	0.00	N/A
Combustion Turbine/Diesel	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	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	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	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	0.00	N/A
Renewable Sources 4/	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	N/A
Total	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	N/A



Table 72. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / California

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
<b>Combined Heat and Power 8/ Capacity</b>														
Coal	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	0.0%
Petroleum	0.21	0.21	0.21	0.21	0.22	0.23	0.24	0.25	0.25	0.25	0.25	0.25	0.25	3.8%
Natural Gas	3.38	3.47	3.57	3.66	3.78	3.90	4.03	4.15	4.27	4.40	4.54	4.69	4.69	3.0%
Other Gaseous Fuels	0.26	0.26	0.27	0.27	0.27	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	1.8%
Renewable Sources 4/	0.24	0.25	0.25	0.26	0.27	0.27	0.28	0.28	0.29	0.30	0.30	0.31	0.31	3.0%
Other	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	N/A
Total	4.24	4.33	4.44	4.55	4.69	4.83	4.98	5.10	5.24	5.38	5.53	5.69	5.69	2.8%
Other End Use Generators	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08	3.1%
<b>Electricity Demand (billion kilowatthours)</b>														
Residential	83.54	84.54	85.60	86.24	87.14	88.22	89.52	90.18	91.08	92.03	93.21	93.92	93.92	1.2%
Commercial/Other	140.76	145.40	149.61	153.89	158.25	162.85	167.48	172.11	176.81	181.64	186.63	191.77	191.77	3.0%
Industrial	72.92	74.08	75.29	76.71	78.16	79.41	80.71	82.03	83.64	85.37	87.15	89.13	89.13	1.7%
Transportation	2.81	2.87	2.93	2.99	3.06	3.13	3.20	3.27	3.35	3.42	3.50	3.57	3.57	2.3%
Total Sales	300.03	306.89	313.43	319.82	326.60	333.61	340.92	347.60	354.87	362.46	370.48	378.39	378.39	2.2%
<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	0.01	0.01	-11.5%
Gross International Exports	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.0%
Gross Interregional Electricity Imports	57.11	61.44	56.96	60.55	62.55	62.31	67.57	71.14	74.09	73.97	72.63	73.62	73.62	0.1%
Gross Interregional Electricity Exports	3.98	3.36	2.80	1.84	1.24	0.73	0.16	0.00	0.00	0.00	0.01	0.24	0.24	-15.4%
Purchases from Combined Heat and Power 8	6.96	7.27	7.62	7.98	8.41	8.85	9.31	9.71	10.14	10.57	11.05	11.55	11.55	5.4%
Electric Power Sector Generation for Custom	264.52	266.35	276.72	278.49	282.53	289.22	290.64	293.57	297.86	305.56	314.90	322.04	322.04	2.4%
Total Net Energy for Load	322.96	330.04	336.84	343.51	350.59	357.98	365.70	372.76	380.42	388.44	396.92	405.31	405.31	2.1%
<b>Generation by Fuel Type (billion kilowatthours)</b>														
Coal	73.97	73.97	89.69	89.65	89.61	89.61	89.61	89.42	94.06	106.30	113.84	121.80	121.80	6.7%
Petroleum	1.54	1.76	1.63	1.40	1.64	1.29	1.27	1.82	1.95	1.79	2.00	1.63	1.63	-0.8%
Natural Gas	81.02	80.34	73.93	75.27	78.48	83.51	78.14	76.01	74.98	70.07	70.93	69.35	69.35	-0.2%
Nuclear	43.76	43.82	43.82	43.82	43.82	43.82	43.82	43.82	43.82	43.82	43.82	43.82	43.82	0.1%
Pumped Storage/Other 3/	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	7.8%
Renewable Sources 4/	72.61	74.85	76.04	76.73	77.36	79.38	86.19	90.89	91.46	91.98	92.71	93.85	93.85	3.0%
Total Generation	271.96	273.79	284.16	285.93	289.98	296.66	298.09	301.02	305.31	313.02	322.36	329.51	329.51	2.4%
Sales to Customers	264.52	266.35	276.72	278.49	282.53	289.22	290.64	293.57	297.86	305.56	314.90	322.04	322.04	2.4%
Generation for Own Use	7.43	7.44	7.44	7.44	7.44	7.45	7.45	7.45	7.46	7.46	7.46	7.46	7.46	2.4%
Distributed Generation 5/	0.09	0.14	0.29	0.46	0.61	0.75	0.89	1.03	1.18	1.32	1.47	1.61	1.61	N/A
<b>Combined Heat and Power</b>														
Coal	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.0%
Petroleum	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	5.6%
Natural Gas	22.09	22.74	23.47	24.23	25.12	26.04	27.03	27.92	28.87	29.84	30.91	32.05	32.05	3.4%
Other Gaseous Fuels	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	4.3%
Renewable Sources 4/	1.04	1.07	1.09	1.12	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.29	1.29	2.6%
Other	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	0.0%
Total	24.61	25.29	26.05	26.83	27.74	28.69	29.70	30.61	31.58	32.57	33.66	34.83	34.83	3.1%
Other End Use Generators	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.15	0.15	1.9%

Table 72. Electric Power Projections for EMM Region  
Western Electricity Coordinating Council / California

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
Sales to Utilities	6.96	7.27	7.62	7.98	8.41	8.85	9.31	9.71	10.14	10.57	11.05	11.55	5.4%	
Generation for Own Use	17.77	18.13	18.54	18.97	19.46	19.96	20.51	21.03	21.58	22.14	22.76	23.43	2.3%	
Total Electricity Generation	296.78	299.33	310.62	313.33	318.45	326.23	328.81	332.80	338.20	347.06	357.64	366.10	2.5%	
End-Use Prices (2002 cents per kilowatthour)														
Residential	10.6	10.7	10.7	10.7	10.7	10.6	10.5	10.6	10.6	10.6	10.6	10.6	10.6	-0.9%
Commercial	9.9	9.9	9.9	9.9	9.9	9.7	9.7	9.7	9.7	9.7	9.6	9.6	9.6	-1.4%
Industrial	6.2	6.2	6.2	6.2	6.2	6.1	6.1	6.1	6.1	6.0	6.0	6.0	6.0	-2.5%
Transportation	9.4	9.4	9.4	9.4	9.3	9.1	9.0	9.0	9.0	8.9	8.9	8.8	8.8	-1.4%
All Sectors Average	9.2	9.2	9.2	9.2	9.2	9.1	9.0	9.1	9.1	9.0	9.0	9.0	9.0	-1.4%
Prices by Service Category (2002 cents per kilowatthour)														
Generation	6.2	6.2	6.2	6.2	6.2	6.1	6.1	6.1	6.1	6.0	6.0	6.0	6.0	-2.0%
Transmission	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.3%
Distribution	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	-0.5%
Fuel Consumption (quadrillion Btu) 9/														
Coal	0.70	0.70	0.83	0.83	0.83	0.83	0.83	0.83	0.87	0.97	1.03	1.10	1.10	6.2%
Natural Gas	0.74	0.73	0.68	0.69	0.71	0.75	0.71	0.70	0.69	0.65	0.66	0.65	0.65	-0.2%
Oil	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	-1.6%
Total	1.46	1.45	1.53	1.54	1.56	1.59	1.56	1.54	1.58	1.64	1.72	1.77	1.77	2.6%
Emissions (million tons) 10/														
Total Carbon	31.67	31.55	34.51	34.55	34.88	35.45	34.84	34.66	35.67	37.95	39.88	41.57	41.57	3.2%
Carbon Dioxide	116.13	115.68	126.53	126.69	127.89	129.98	127.75	127.09	130.81	139.16	146.24	152.42	152.42	3.2%
Sulfur Dioxide	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.5%
Nitrogen Oxide	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	10.9%

Table 72. Electric Power Projections for EMM 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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 73. Electric Power Projections for EMM Region  
United States

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Electricity Generating Capacity 1/ (gigawatts)</b>													
Coal Steam	310.64	310.94	310.59	309.83	308.88	307.85	306.23	306.49	307.81	310.25	311.68	313.47	315.60
Other Fossil Steam 2/	134.94	133.65	131.21	130.89	128.81	127.16	124.58	123.37	111.41	106.13	104.78	103.72	103.28
Combined Cycle	65.49	110.49	146.83	153.77	154.51	154.51	154.51	154.83	156.06	159.99	164.60	167.83	175.38
Combustion Turbine/Diesel	101.97	128.83	135.20	135.68	139.64	139.30	138.79	139.72	133.42	136.47	139.53	142.26	147.97
Nuclear Power	98.20	98.75	99.16	99.46	99.78	100.07	100.22	100.37	100.44	100.57	100.68	101.04	101.40
Pumped Storage/Other 3/	19.86	20.20	20.27	20.33	20.33	20.33	20.33	20.33	20.33	20.33	20.33	20.33	20.33
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.05
Renewable Sources 4/	90.67	91.69	93.66	93.83	94.19	94.96	95.78	96.31	96.74	97.42	98.20	98.66	99.62
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.11	0.28	0.45	0.67	0.89	1.19
Total Capacity	821.77	894.54	936.90	943.79	946.15	944.19	940.47	941.57	926.55	931.66	940.51	948.26	964.83
<b>Cumulative Planned Additions 6/</b>													
Coal Steam	0.00	0.00	0.08	0.60	0.60	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
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	35.80	42.74	43.48	43.48	43.48	43.48	43.48	43.48	43.48	43.48	43.48
Combustion Turbine/Diesel	0.00	0.00	7.33	7.52	8.07	8.07	8.07	8.07	8.07	8.07	8.07	8.07	8.07
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	0.02	0.03	0.05	0.05	0.05	0.05	0.05
Renewable Sources 4/	0.00	0.00	1.86	2.07	2.36	2.99	3.70	4.03	4.17	4.33	4.40	4.44	4.50
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	45.07	52.94	54.52	55.67	56.40	56.75	56.91	57.07	57.13	57.17	57.24
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	0.00	0.00	0.00	0.00	0.00	0.00	0.43	1.18	3.21	5.65	7.08	8.87	11.01
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	0.32	2.52	6.61	11.22	14.44	22.00
Combustion Turbine/Diesel	0.00	0.00	0.00	0.32	4.03	4.03	4.11	5.09	6.58	10.46	13.95	16.89	22.60
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	0.11	0.31	0.59	1.14	1.86	2.28	3.18
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.11	0.28	0.45	0.67	0.89	1.19
Total Unplanned Additions	0.00	0.00	0.00	0.32	4.04	4.04	4.67	7.01	13.20	24.31	34.77	43.39	59.97
Cumulative Total Additions	0.00	0.00	45.07	53.26	58.56	59.72	61.07	63.76	70.11	81.38	91.90	100.56	117.21
<b>Cumulative Retirements 7/</b>													
Coal Steam	0.00	0.00	0.43	1.71	2.66	4.22	6.27	6.75	7.47	7.47	7.47	7.47	7.47
Other Fossil Steam 3/	0.00	0.00	0.50	0.82	2.92	4.57	7.15	8.36	20.32	25.60	26.95	28.01	28.45
Combined Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	1.13	1.13	1.13	1.13
Combustion Turbine/Diesel	0.00	0.00	0.31	0.33	0.64	0.98	1.56	1.62	9.41	10.23	10.66	10.87	10.87
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	0.11	0.12	0.12	0.12	0.12	0.12	0.14	0.15	0.15	0.15
Total	0.00	0.00	1.24	2.98	6.34	9.88	15.10	16.84	38.28	44.57	46.36	47.62	48.06

Table 73. Electric Power Projections for EMM Region  
United States

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	4.08	4.17	4.17	4.17	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15
Petroleum	0.96	0.95	0.95	0.95	1.16	1.31	1.31	1.39	1.49	1.60	1.70	1.76	1.82
Natural Gas	13.90	14.11	14.23	14.56	15.13	15.68	16.08	16.56	17.16	17.77	18.35	18.91	19.39
Other Gaseous Fuels	1.57	1.77	1.77	1.77	2.04	2.10	2.10	2.13	2.17	2.21	2.25	2.28	2.32
Renewable Sources 4/	4.01	4.16	4.23	4.51	4.79	4.98	5.11	5.23	5.40	5.61	5.83	6.06	6.30
Other	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Total	24.84	25.49	25.68	26.29	27.59	28.55	29.08	29.79	30.69	31.66	32.60	33.48	34.30
Other End Use Generators	1.05	1.06	1.08	1.10	1.12	1.16	1.21	1.27	1.33	1.41	1.42	1.42	1.43
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	1197.78	1259.20	1280.82	1300.95	1317.85	1337.27	1359.10	1385.25	1403.60	1426.66	1448.33	1472.59	1488.72
Commercial/Other	1193.11	1198.46	1212.03	1252.73	1294.99	1333.82	1370.36	1406.38	1441.77	1478.77	1515.49	1550.32	1585.79
Industrial	957.27	982.49	976.89	1002.29	1029.49	1051.70	1072.32	1088.27	1102.34	1119.33	1138.89	1158.00	1178.53
Transportation	21.49	21.86	22.64	23.29	23.90	24.40	24.86	25.33	25.81	26.32	26.83	27.37	27.93
Total Sales	3369.66	3462.00	3492.37	3579.26	3666.23	3747.20	3826.65	3905.24	3973.52	4051.08	4129.53	4208.29	4280.98
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	38.40	36.29	52.37	46.50	48.89	45.49	44.62	44.80	45.87	47.17	47.54	45.47	44.59
Gross International Exports	16.41	14.34	12.75	16.55	16.67	16.80	16.93	17.06	17.20	16.38	15.41	14.44	13.47
Gross Interregional Electricity Imports	321.20	344.60	357.68	342.86	333.79	334.73	348.05	353.08	348.94	332.16	325.31	313.82	304.37
Gross Interregional Electricity Exports	324.84	348.80	362.19	347.15	338.04	339.17	352.76	357.94	353.73	336.75	329.91	318.34	308.84
Purchases from Combined Heat and Power 8	25.35	27.12	28.25	30.52	32.07	35.47	38.12	40.98	44.54	48.31	51.92	55.10	58.11
Electric Power Sector Generation for Custom	3551.18	3625.91	3674.42	3772.70	3860.03	3943.76	4024.70	4102.30	4167.15	4242.11	4318.14	4396.89	4467.96
Total Net Energy for Load	3594.87	3670.79	3737.78	3828.87	3920.07	4003.47	4085.79	4166.16	4235.57	4316.62	4397.59	4478.51	4552.71
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	1882.83	1906.93	1972.66	1975.41	2032.61	2089.09	2143.64	2164.54	2205.91	2234.52	2255.06	2277.04	2298.17
Petroleum	119.16	83.11	96.90	51.59	62.09	61.44	64.53	71.58	68.52	63.39	70.21	83.81	91.15
Natural Gas	554.94	598.10	572.01	661.30	664.48	685.33	702.78	746.92	773.35	816.41	855.42	892.56	927.37
Nuclear	768.83	780.05	762.38	779.03	790.84	793.85	794.67	796.35	790.54	794.33	799.59	802.65	805.70
Pumped Storage/Other 3/	-8.24	-6.89	-9.39	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41
Renewable Sources 4/	262.55	308.87	342.77	378.32	383.19	387.46	392.67	396.60	399.98	404.52	408.69	411.66	416.41
Total Generation	3580.06	3670.18	3737.33	3836.23	3923.80	4007.75	4088.89	4166.58	4228.89	4303.75	4379.55	4458.31	4529.39
Sales to Customers	3551.18	3625.91	3674.42	3772.70	3860.03	3943.76	4024.70	4102.30	4167.15	4242.11	4318.14	4396.89	4467.96
Generation for Own Use	28.88	44.27	62.91	63.54	63.77	63.98	64.19	64.28	61.74	61.64	61.41	61.42	61.43
Distributed Generation 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.12	0.20	0.29	0.39	0.52
<b>Combined Heat and Power</b>													
Coal	21.34	21.07	20.84	20.84	20.88	20.88	20.88	20.88	20.88	20.88	20.88	20.89	20.89
Petroleum	5.54	5.00	5.37	5.37	8.35	9.08	9.62	10.26	11.13	12.01	12.89	13.38	13.87
Natural Gas	82.58	84.44	83.80	86.17	89.47	93.57	96.61	100.18	104.61	109.21	113.50	117.63	121.22
Other Gaseous Fuels	3.78	4.90	5.93	5.93	7.99	8.45	8.45	8.68	8.98	9.29	9.60	9.87	10.15
Renewable Sources 4/	28.68	30.00	30.66	32.33	33.95	35.06	35.82	36.55	37.50	38.73	40.00	41.36	42.79
Other	8.68	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45
Total	150.61	156.86	158.05	162.09	172.09	178.49	182.83	187.98	194.55	201.57	208.32	214.57	220.36
Other End Use Generators	3.27	4.20	4.23	4.27	4.33	4.41	4.52	4.63	4.77	4.93	4.95	4.97	4.98

Table 73. Electric Power Projections for EMM Region  
United States

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales to Utilities	25.35	27.12	28.25	30.52	32.07	35.47	38.12	40.98	44.54	48.31	51.92	55.10	58.11
Generation for Own Use	128.53	133.93	134.03	135.84	144.34	147.43	149.22	151.63	154.78	158.19	161.35	164.43	167.24
Total Electricity Generation	3733.94	3831.23	3899.61	4002.59	4100.21	4190.65	4276.24	4359.24	4428.34	4510.45	4593.11	4678.24	4755.25
End-Use Prices (2002 cents per kilowatthour)													
Residential	8.7	8.4	8.5	8.3	8.2	8.1	8.0	8.0	8.0	7.9	7.9	8.0	8.0
Commercial	8.0	7.8	7.6	7.4	7.2	7.0	6.9	6.9	7.0	7.0	7.0	7.1	7.0
Industrial	5.2	5.0	4.8	4.7	4.6	4.6	4.5	4.6	4.6	4.6	4.5	4.6	4.6
Transportation	7.4	7.2	7.3	7.1	6.9	6.7	6.6	6.6	6.7	6.7	6.7	6.8	6.8
All Sectors Average	7.4	7.2	7.1	7.0	6.8	6.7	6.6	6.6	6.7	6.6	6.6	6.7	6.7
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.8	4.6	4.6	4.4	4.3	4.2	4.2	4.1	4.2	4.1	4.1	4.2	4.2
Transmission	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Distribution	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Fuel Consumption (quadrillion Btu) 9/													
Coal	19.68	19.96	20.37	20.38	20.96	21.54	22.10	22.34	22.76	23.05	23.27	23.49	23.70
Natural Gas	5.45	5.45	5.06	5.77	5.80	5.98	6.13	6.48	6.47	6.78	7.05	7.32	7.51
Oil	1.25	0.85	1.01	0.55	0.66	0.65	0.68	0.75	0.71	0.66	0.72	0.84	0.90
Total	26.37	26.25	26.44	26.70	27.42	28.17	28.91	29.56	29.95	30.50	31.04	31.65	32.11
Emissions (million tons) 10/													
Total Carbon	669.20	675.92	677.61	678.44	697.84	716.71	735.52	749.17	760.57	772.59	784.24	797.57	808.04
Carbon Dioxide	2453.74	2478.38	2484.59	2487.60	2558.76	2627.93	2696.91	2746.96	2788.74	2832.81	2875.54	2924.43	2962.82
Sulfur Dioxide	10.63	10.54	10.62	10.80	10.18	9.90	10.13	10.30	9.93	9.90	9.86	9.37	9.15
Nitrogen Oxide	4.75	4.39	3.70	3.23	3.28	3.36	3.43	3.46	3.48	3.50	3.52	3.54	3.56

Table 73. Electric Power Projections for EMM Region  
United States

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Electricity Generating Capacity 1/</b> (gigawatts)													
Coal Steam	318.01	321.53	325.75	331.09	336.36	344.21	353.51	364.03	376.94	392.32	400.48	412.30	1.2%
Other Fossil Steam 2/	102.98	102.69	102.69	102.10	101.65	101.40	101.10	99.97	99.22	98.75	98.24	96.48	-1.4%
Combined Cycle	184.17	191.72	195.71	203.29	207.46	212.74	217.35	223.28	226.69	230.17	232.06	235.24	3.3%
Combustion Turbine/Diesel	152.63	158.06	160.76	164.61	166.23	167.80	169.25	172.20	176.19	178.01	179.54	180.41	1.5%
Nuclear Power	101.76	102.12	102.36	102.60	102.60	102.60	102.60	102.60	102.60	102.60	102.60	102.60	0.2%
Pumped Storage/Other 3/	20.33	20.33	20.33	20.33	20.33	20.33	20.33	20.33	20.33	20.33	20.33	20.33	0.0%
Fuel Cells	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Renewable Sources 4/	100.28	101.22	101.67	102.33	102.94	103.91	105.93	107.35	107.65	107.97	109.02	110.13	0.8%
Distributed Generation 5/	1.74	2.44	3.30	4.38	5.25	6.38	7.56	8.79	9.82	10.73	11.55	12.36	N/A
Total Capacity	981.95	1000.15	1012.61	1030.78	1042.87	1059.42	1077.68	1098.60	1119.49	1140.95	1153.88	1169.90	1.2%
<b>Cumulative Planned Additions 6/</b>													
Coal Steam	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	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	0.00	N/A
Combined Cycle	43.48	43.48	43.48	43.48	43.48	43.48	43.48	43.48	43.48	43.48	43.48	43.48	N/A
Combustion Turbine/Diesel	8.07	8.07	8.07	8.07	8.07	8.07	8.07	8.07	8.07	8.07	8.07	8.07	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	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	0.00	N/A
Fuel Cells	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Renewable Sources 4/	4.56	4.63	4.65	4.67	4.69	4.71	4.73	4.76	4.78	4.80	4.82	4.84	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	0.00	N/A
Total Planned Additions	57.30	57.36	57.38	57.41	57.43	57.45	57.47	57.49	57.51	57.54	57.56	57.58	N/A
<b>Cumulative Unplanned Additions 6/</b>													
Coal Steam	13.94	17.45	21.68	27.01	33.58	41.43	50.72	62.09	75.00	90.38	98.54	110.62	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	0.00	N/A
Combined Cycle	30.79	38.33	42.33	49.91	54.08	59.36	63.96	69.90	73.30	76.79	78.67	81.85	N/A
Combustion Turbine/Diesel	27.26	32.81	35.50	39.35	40.98	43.22	45.99	50.00	54.00	55.83	57.36	59.05	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	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	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	0.00	N/A
Renewable Sources 4/	3.77	4.65	5.07	5.72	6.31	7.25	9.25	10.65	10.93	11.23	12.26	13.34	N/A
Distributed Generation 5/	1.74	2.44	3.30	4.38	5.25	6.38	7.56	8.79	9.82	10.73	11.55	12.36	N/A
Total Unplanned Additions	77.49	95.68	107.88	126.37	140.19	157.65	177.49	201.43	223.06	244.96	258.39	277.23	N/A
Cumulative Total Additions	134.79	153.04	165.26	183.77	197.62	215.10	234.96	258.92	280.57	302.50	315.95	334.81	N/A
<b>Cumulative Retirements 7/</b>													
Coal Steam	7.99	7.99	7.99	7.99	9.28	9.28	9.28	10.12	10.12	10.12	10.12	10.39	N/A
Other Fossil Steam 3/	28.75	29.04	29.04	29.63	30.09	30.33	30.63	31.76	32.51	32.98	33.49	35.25	N/A
Combined Cycle	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	N/A
Combustion Turbine/Diesel	10.87	10.99	10.99	10.99	10.99	11.67	12.99	14.05	14.06	14.06	14.07	14.88	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	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	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	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	0.15	N/A
Total	48.89	49.29	49.29	49.88	51.63	52.56	54.17	57.20	57.97	58.44	58.96	61.79	N/A

Table 73. Electric Power Projections for EMM Region  
United States

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Combined Heat and Power 8/ Capacity</b>													
Coal	4.15	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	1.88	1.90	1.93	1.95	2.04	2.14	2.23	2.24	2.24	2.25	2.26	2.26	3.8%
Natural Gas	19.89	20.39	20.95	21.53	22.21	22.92	23.68	24.37	25.10	25.85	26.68	27.56	3.0%
Other Gaseous Fuels	2.35	2.39	2.42	2.46	2.49	2.53	2.56	2.59	2.61	2.64	2.66	2.68	1.8%
Renewable Sources 4/	6.52	6.69	6.86	7.04	7.22	7.36	7.51	7.65	7.80	7.96	8.11	8.29	3.0%
Other	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	N/A
Total	35.11	35.84	36.63	37.45	38.44	39.42	40.45	41.31	42.22	43.17	44.18	45.27	2.5%
Other End Use Generators	1.44	1.45	1.45	1.46	1.50	1.54	1.61	1.70	1.80	1.91	2.02	2.15	3.1%
<b>Electricity Demand (billion kilowatthours)</b>													
Residential	1509.10	1529.67	1552.99	1570.00	1590.97	1614.02	1640.06	1655.58	1676.85	1699.84	1727.13	1745.20	1.4%
Commercial/Other	1619.43	1651.58	1682.16	1716.41	1752.31	1789.99	1826.02	1860.76	1893.44	1927.61	1962.97	2001.37	2.3%
Industrial	1196.15	1214.49	1233.84	1255.34	1274.87	1290.63	1308.64	1325.70	1347.15	1370.53	1393.57	1420.28	1.6%
Transportation	28.46	29.01	29.56	30.13	30.76	31.39	32.02	32.67	33.32	33.98	34.67	35.37	2.1%
Total Sales	4353.14	4424.75	4498.55	4571.88	4648.89	4726.03	4806.75	4874.71	4950.76	5031.96	5118.34	5202.22	1.8%
<b>Net Energy for Load (billion kilowatthours) 7/</b>													
Gross International Imports	42.42	43.50	40.24	36.13	32.41	28.09	28.94	24.59	20.95	18.33	16.33	15.16	-3.7%
Gross International Exports	12.50	11.53	10.57	9.60	8.63	8.14	7.66	7.66	7.66	7.66	7.66	7.66	-2.7%
Gross Interregional Electricity Imports	294.93	287.40	273.55	270.96	261.57	257.75	255.57	248.36	234.95	230.48	220.42	221.26	-1.9%
Gross Interregional Electricity Exports	299.36	291.83	277.84	275.34	265.91	262.09	259.93	252.58	238.90	234.33	224.07	224.93	-1.9%
Purchases from Combined Heat and Power 8	61.03	63.48	66.11	68.85	72.55	76.19	79.99	82.67	85.51	88.44	91.60	94.94	5.6%
Electric Power Sector Generation for Custom	4536.77	4604.76	4681.83	4759.93	4839.83	4921.10	5000.49	5073.59	5154.49	5239.56	5329.56	5415.47	1.8%
Total Net Energy for Load	4623.29	4695.78	4773.32	4850.92	4931.83	5012.90	5097.39	5168.98	5249.35	5334.82	5426.18	5514.24	1.8%
<b>Generation by Fuel Type (billion kilowatthours)</b>													
Coal	2321.17	2351.97	2386.72	2428.08	2468.78	2525.95	2592.78	2667.42	2757.84	2862.86	2923.78	3007.91	2.0%
Petroleum	99.13	107.75	105.46	103.54	95.19	89.62	84.52	89.96	84.73	77.26	80.52	79.92	-0.2%
Natural Gas	958.65	979.40	1019.20	1052.61	1097.47	1122.15	1131.35	1118.41	1112.10	1098.16	1119.56	1117.49	2.8%
Nuclear	808.90	811.97	814.06	816.22	816.38	816.49	816.49	816.49	816.49	816.49	816.49	816.49	0.2%
Pumped Storage/Other 3/	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	-9.41	1.4%
Renewable Sources 4/	419.76	424.54	427.27	430.35	432.89	437.76	446.22	452.20	454.23	455.69	460.10	464.40	1.8%
Total Generation	4598.21	4666.22	4743.29	4821.40	4901.29	4982.57	5061.95	5135.06	5215.97	5301.04	5391.04	5476.79	1.8%
Sales to Customers	4536.77	4604.76	4681.83	4759.93	4839.83	4921.10	5000.49	5073.59	5154.49	5239.56	5329.56	5415.47	1.8%
Generation for Own Use	61.45	61.46	61.46	61.47	61.46	61.46	61.47	61.47	61.48	61.48	61.48	61.33	1.4%
Distributed Generation 5/	0.76	1.07	1.44	1.92	2.30	2.79	3.31	3.85	4.30	4.70	5.06	5.41	N/A
<b>Combined Heat and Power</b>													
Coal	20.89	20.89	20.89	20.89	20.89	20.89	20.90	20.90	20.90	20.90	20.90	20.90	0.0%
Petroleum	14.36	14.55	14.74	14.93	15.72	16.51	17.30	17.34	17.39	17.44	17.49	17.54	5.6%
Natural Gas	124.92	128.62	132.77	137.05	142.08	147.29	152.88	157.93	163.28	168.77	174.83	181.27	3.4%
Other Gaseous Fuels	10.42	10.70	10.97	11.24	11.52	11.79	12.07	12.26	12.45	12.65	12.84	13.04	4.3%
Renewable Sources 4/	44.05	45.06	46.03	47.11	48.15	48.97	49.82	50.64	51.51	52.45	53.35	54.36	2.6%
Other	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45	11.45	0.0%
Total	226.08	231.26	236.86	242.67	249.81	256.90	264.40	270.53	276.98	283.65	290.86	298.55	2.8%
Other End Use Generators	5.00	5.02	5.03	5.05	5.13	5.21	5.37	5.56	5.78	6.01	6.25	6.53	1.9%



Table 73. Electric Power Projections for EMM Region  
United States

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Sales to Utilities	61.03	63.48	66.11	68.85	72.55	76.19	79.99	82.67	85.51	88.44	91.60	94.94	5.6%
Generation for Own Use	170.05	172.80	175.78	178.88	182.39	185.92	189.78	193.42	197.25	201.22	205.52	210.14	2.0%
Total Electricity Generation	4830.06	4903.57	4986.63	5071.04	5158.53	5247.47	5335.03	5415.00	5503.03	5595.40	5693.22	5787.29	1.8%
End-Use Prices (2002 cents per kilowatthour)													
Residential	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	-0.2%
Commercial	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.3	7.3	7.2	7.3	7.3	-0.3%
Industrial	4.6	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.7	4.8	4.8	-0.2%
Transportation	6.9	6.9	6.9	6.9	6.9	6.8	6.8	6.9	6.8	6.8	6.8	6.8	-0.2%
All Sectors Average	6.8	6.8	6.9	6.8	6.9	6.8	6.9	6.9	6.9	6.8	6.9	6.9	-0.2%
Prices by Service Category (2002 cents per kilowatthour)													
Generation	4.3	4.4	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.5	-0.1%
Transmission	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9%
Distribution	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	-0.7%
Fuel Consumption (quadrillion Btu) 9/													
Coal	23.91	24.20	24.51	24.87	25.17	25.66	26.22	26.81	27.57	28.46	28.97	29.67	1.7%
Natural Gas	7.68	7.78	8.07	8.27	8.59	8.74	8.77	8.62	8.55	8.42	8.59	8.55	2.0%
Oil	0.97	1.04	1.03	1.01	0.94	0.89	0.85	0.90	0.85	0.79	0.82	0.81	-0.2%
Total	32.56	33.01	33.61	34.15	34.70	35.29	35.85	36.32	36.97	37.67	38.37	39.03	1.7%
Emissions (million tons) 10/													
Total Carbon	818.32	829.40	842.91	855.86	867.74	882.78	898.33	913.42	932.85	954.76	972.42	991.49	1.7%
Carbon Dioxide	3000.52	3041.13	3090.68	3138.14	3181.70	3236.86	3293.88	3349.20	3420.44	3500.78	3565.54	3635.48	1.7%
Sulfur Dioxide	9.09	8.95	8.95	8.95	8.94	8.95	8.94	8.94	8.94	8.94	8.95	8.95	-0.7%
Nitrogen Oxide	3.57	3.60	3.63	3.65	3.64	3.65	3.67	3.66	3.68	3.71	3.73	3.75	-0.7%

Table 73. Electric Power Projections for EMM 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, 2002.

7/ Generation to meet system load by source.

8/ Combined heat and power produces electricity and other useful thermal energy (such as steam or heat) through the sequential use of energy.

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).

O&M = Operation and maintenance.

EMM = Electricity market module.

N/A = Not applicable.

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

Sources: 2002 (except for prices and nonutility data): Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002).

Other 2002 and projections: NewGen Data and Analysis, RDI Consulting/FT Energy (Boulder, CO, August 2000) and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>East Central Area Reliability Coordination Agreement</b>													
Coal	483.11	491.98	517.24	517.65	531.82	540.02	555.29	562.39	574.58	578.66	582.43	585.62	587.51
Petroleum	1.91	2.18	0.89	0.87	0.66	0.66	0.61	0.67	0.56	0.54	0.62	0.66	0.69
Natural Gas	15.83	21.55	40.92	54.97	52.76	53.50	51.58	59.36	53.72	56.52	64.25	71.58	78.53
Nuclear	55.35	55.55	55.23	55.91	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13
Pumped Storage/Other 1/	-1.63	-1.48	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38
Renewables 2/	5.92	5.41	7.45	6.94	7.48	7.61	7.93	7.93	8.18	8.88	9.29	9.48	9.63
Total	560.49	575.19	619.36	633.96	646.48	655.54	669.17	684.10	690.79	698.36	710.35	721.09	730.11
<b>Electric Reliability Council of Texas</b>													
Coal	102.26	107.49	104.66	104.86	107.97	110.60	112.77	112.88	115.43	115.43	115.40	115.38	115.35
Petroleum	2.53	1.48	1.19	0.63	0.80	0.84	0.81	0.91	0.42	0.05	0.39	0.63	0.68
Natural Gas	125.73	126.10	146.37	146.95	149.76	153.85	157.74	163.33	166.32	176.78	177.83	183.07	187.68
Nuclear	38.16	35.62	30.55	36.64	36.95	37.10	37.25	37.40	37.54	33.93	38.46	38.61	38.76
Pumped Storage/Other 1/	0.01	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewables 2/	2.11	2.67	5.54	6.13	6.28	6.30	6.31	6.00	6.34	6.53	6.68	6.71	6.75
Total	270.81	273.77	288.32	295.20	301.76	308.69	314.88	320.54	326.12	332.83	338.89	344.56	349.41
<b>Mid-Atlantic Area Council</b>													
Coal	114.38	117.14	124.32	126.69	131.21	137.06	142.45	144.24	145.66	146.56	147.29	147.43	147.76
Petroleum	9.09	6.13	6.06	3.79	3.77	3.82	3.93	3.99	4.17	1.65	1.83	2.55	2.98
Natural Gas	19.26	25.33	20.15	25.38	25.28	26.24	28.22	32.28	36.92	40.63	43.10	47.39	50.12
Nuclear	104.68	105.49	104.98	107.67	108.19	109.11	109.16	109.21	109.37	109.37	109.37	109.37	109.37
Pumped Storage/Other 1/	-0.32	-0.30	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60
Renewables 2/	6.57	7.46	10.33	11.37	11.93	11.95	12.16	12.26	12.35	12.30	12.40	12.42	12.45
Total	253.66	261.26	265.26	274.30	279.77	287.58	295.32	301.38	307.90	309.99	313.50	318.69	322.25
<b>Mid-America Interconnected Network</b>													
Coal	150.20	156.17	163.28	165.53	168.56	175.12	182.53	187.92	193.35	196.42	199.93	203.47	205.42
Petroleum	2.19	0.86	0.61	0.48	0.43	0.43	0.45	0.47	0.41	0.42	0.43	0.49	0.54
Natural Gas	5.90	13.38	27.79	31.31	31.09	31.42	32.00	33.33	33.54	34.02	35.65	35.89	37.01
Nuclear	112.25	111.70	111.52	112.70	113.18	113.74	113.81	114.82	114.89	114.89	115.23	115.23	115.23
Pumped Storage/Other 1/	-0.27	-0.14	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18
Renewables 2/	3.99	3.94	4.88	5.33	5.58	5.61	5.64	5.65	5.70	5.73	5.75	5.78	5.78
Total	274.27	285.90	307.89	315.17	318.65	326.13	334.24	342.03	347.72	351.30	356.81	360.69	363.80
<b>Mid-Continent Area Power Pool</b>													
Coal	122.49	128.67	120.47	122.23	126.90	131.37	135.23	135.78	136.35	136.61	136.70	136.67	136.74
Petroleum	0.82	0.75	0.27	0.28	0.31	0.31	0.32	0.34	0.25	0.25	0.27	0.38	0.60
Natural Gas	1.99	2.12	1.09	1.36	1.40	1.44	1.50	1.83	1.80	2.25	2.58	3.42	3.47
Nuclear	24.37	28.38	26.93	27.28	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39
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	0.00	0.00
Renewables 2/	10.87	12.97	17.38	19.51	19.63	20.25	21.49	21.94	22.07	22.48	22.59	22.59	22.59
Total	160.53	172.89	166.12	170.66	175.63	180.77	185.95	187.29	187.88	189.01	189.57	190.49	190.85
<b>Northeast Power Coordinating Council/ New York</b>													
Coal	22.59	24.76	23.56	23.22	23.78	24.96	26.16	26.24	26.29	26.18	26.23	26.05	26.23
Petroleum	16.29	11.60	9.78	8.15	11.06	10.29	10.35	10.74	10.37	10.36	10.84	11.21	11.34
Natural Gas	37.58	37.01	36.37	40.96	38.39	39.33	39.69	39.67	40.36	46.07	48.53	48.86	52.09
Nuclear	40.39	39.62	34.95	39.77	40.00	40.07	40.14	40.21	40.28	40.35	40.42	40.43	40.43
Pumped Storage/Other 1/	-0.93	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92
Renewables 2/	25.20	27.38	27.79	28.61	29.40	30.12	30.29	30.23	30.24	30.31	30.24	30.35	30.19
Total	141.12	139.45	131.53	139.80	141.70	143.86	145.71	146.17	146.61	152.35	155.34	155.98	159.36

Table 74. Electric Generation by Electricity Market Module Region and Source  
(Billion Kilowatt-hours)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Northeast Power Coordinating Council/ New England													
Coal	18.64	18.26	20.42	20.25	20.77	21.22	21.66	21.63	21.63	21.63	21.63	21.63	21.63
Petroleum	14.96	9.34	36.61	8.44	14.41	13.14	14.72	17.02	18.15	18.41	19.27	21.12	25.03
Natural Gas	32.30	41.39	22.22	47.74	42.17	46.25	46.34	47.69	48.59	48.74	50.14	51.74	49.51
Nuclear	33.44	33.94	33.58	33.99	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16
Pumped Storage/Other 1/	-0.71	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85
Renewables 2/	11.74	11.64	11.85	12.63	12.79	12.88	13.05	13.33	13.65	13.91	14.26	14.26	14.34
Total	110.37	113.72	123.84	122.20	123.46	126.81	129.07	132.98	135.34	135.99	138.61	142.06	143.82
Southeastern Electric Reliability Council/ Florida													
Coal	60.99	50.49	75.80	70.37	72.77	75.09	80.20	85.76	85.76	85.85	89.32	89.34	89.62
Petroleum	40.30	32.32	24.61	14.59	14.20	15.17	16.02	19.33	17.55	14.42	18.04	26.83	28.22
Natural Gas	42.27	59.31	29.76	49.56	51.86	53.65	53.07	51.87	59.77	69.35	71.63	71.59	77.91
Nuclear	31.58	33.70	33.16	33.59	33.72	33.72	33.72	33.89	33.89	33.89	33.89	33.89	33.89
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	0.00	0.00
Renewables 2/	3.32	3.76	4.16	4.03	4.20	4.23	4.44	4.49	4.48	4.62	4.81	4.91	4.95
Total	178.45	179.59	167.50	172.14	176.75	181.86	187.44	195.34	201.44	208.14	217.68	226.55	234.59
Southeastern Electric Reliability Council/ excluding Florida													
Coal	450.64	454.59	447.52	451.77	466.24	482.58	498.44	501.81	507.64	509.82	511.69	513.62	514.19
Petroleum	16.21	6.76	6.22	4.45	5.24	5.35	5.67	6.24	5.84	6.38	7.37	8.42	9.21
Natural Gas	75.17	102.11	73.15	88.37	82.61	82.70	84.20	93.82	101.34	119.42	129.73	140.48	149.09
Nuclear	248.06	252.76	248.78	247.83	256.95	258.19	258.31	258.46	258.86	259.32	259.51	262.35	265.18
Pumped Storage/Other 1/	-3.95	-3.44	-3.02	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04
Renewables 2/	27.45	29.97	33.48	37.48	38.43	38.61	38.70	39.09	39.01	39.17	39.51	39.43	40.96
Total	813.58	842.75	806.13	826.86	846.43	864.39	882.28	896.38	909.66	931.06	944.76	961.26	975.60
Southwest Power Pool													
Coal	125.47	133.15	143.26	144.11	148.54	153.12	146.91	143.87	144.65	144.69	144.71	144.75	144.78
Petroleum	1.10	0.56	0.43	0.47	0.50	0.50	0.57	0.65	0.67	0.70	0.75	0.88	0.90
Natural Gas	38.48	41.70	28.66	29.87	32.42	32.14	37.08	41.54	42.24	45.81	48.41	51.01	52.73
Nuclear	10.35	9.04	9.17	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.39	9.39	9.39
Pumped Storage/Other 1/	-0.13	-0.18	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28
Renewables 2/	5.13	6.61	5.77	6.44	6.50	6.44	6.44	6.59	6.45	6.45	6.44	6.46	6.48
Total	180.41	190.87	187.01	189.92	196.99	201.23	200.04	201.68	203.05	206.68	209.42	212.21	213.99
Western Electricity Coordinating Council/ Northwest Power Pool Area													
Coal	74.75	70.81	82.50	81.36	83.47	85.32	86.93	86.93	95.28	102.55	105.03	111.60	111.60
Petroleum	1.84	0.56	0.40	0.31	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Natural Gas	21.99	12.77	17.38	19.36	24.49	26.17	27.32	28.65	28.20	24.99	26.14	25.82	32.12
Nuclear	8.25	9.05	8.90	9.02	9.06	9.06	9.06	9.06	2.34	9.14	9.14	9.14	9.14
Pumped Storage/Other 1/	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewables 2/	99.16	131.98	139.00	157.29	157.30	157.30	157.60	158.87	159.87	161.38	162.68	163.86	165.02
Total	205.99	225.45	248.19	267.34	274.63	278.18	281.25	283.84	286.02	298.39	303.33	310.78	318.28

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Western Electricity Coordinating Council/ Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area													
Coal	127.69	124.14	115.09	113.43	115.93	117.27	119.10	119.10	119.10	119.10	119.10	119.10	129.20
Petroleum	0.58	0.13	1.02	0.95	0.95	0.97	0.97	0.98	0.26	0.26	0.26	0.26	0.30
Natural Gas	37.18	39.86	64.07	46.31	48.31	52.55	56.66	63.49	68.28	64.95	69.83	73.54	70.47
Nuclear	20.85	22.40	22.29	22.50	22.73	22.73	22.95	22.95	22.95	22.95	22.95	22.95	22.95
Pumped Storage/Other 1/	0.03	-0.10	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22
Renewables 2/	16.95	15.57	18.78	21.07	21.66	22.07	22.30	22.50	22.81	23.04	23.29	23.50	24.19
Total	203.28	202.02	221.02	204.04	209.37	215.38	221.76	228.79	233.18	230.08	235.20	239.12	246.89
Western Electricity Coordinating Council/ California													
Coal	27.62	27.34	34.33	33.72	34.42	35.13	35.75	35.75	39.95	50.80	55.35	62.13	67.87
Petroleum	2.46	1.96	1.59	0.84	1.87	1.90	1.91	1.92	1.42	1.33	1.35	1.36	1.40
Natural Gas	98.24	72.22	61.14	76.15	80.86	82.94	84.17	86.80	88.94	83.50	84.14	84.63	83.01
Nuclear	41.09	42.80	42.33	42.82	43.08	43.14	43.29	43.36	43.42	43.49	43.56	43.62	43.69
Pumped Storage/Other 1/	-0.34	-0.17	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95
Renewables 2/	42.25	48.03	54.85	59.98	60.45	62.49	64.68	66.08	67.17	67.97	69.01	70.11	71.23
Total	195.19	206.11	221.07	241.95	240.14	242.21	243.30	250.95	246.80	247.98	255.42	263.53	269.62

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>East Central Area Reliability Coordination Agreement</b>													
Coal	588.71	590.84	592.89	594.05	594.09	594.30	594.50	594.40	593.98	594.33	595.17	595.81	0.8%
Petroleum	0.81	0.93	0.89	0.91	0.92	0.90	1.01	1.10	1.17	1.14	1.18	1.18	-2.6%
Natural Gas	86.43	95.12	103.09	113.50	125.19	136.71	146.21	151.06	154.78	163.98	173.19	184.50	9.8%
Nuclear	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	56.13	0.0%
Pumped Storage/Other 1/	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	-2.38	2.1%
Renewables 2/	9.67	9.89	10.25	10.43	10.53	10.68	10.73	10.39	10.26	10.28	10.27	10.17	2.8%
Total	739.38	750.54	760.88	772.65	784.49	796.36	806.20	810.71	813.97	823.50	833.59	845.44	1.7%
<b>Electric Reliability Council of Texas</b>													
Coal	115.35	115.39	115.31	115.34	115.34	115.34	115.39	115.40	115.33	123.22	127.30	134.75	1.0%
Petroleum	1.07	2.44	2.15	0.89	0.67	0.65	0.73	1.00	0.81	0.65	0.70	0.71	-3.2%
Natural Gas	191.01	191.71	195.84	201.22	204.02	207.12	209.15	211.71	216.16	213.25	214.53	211.27	2.3%
Nuclear	38.91	40.95	41.11	41.27	41.43	41.54	41.54	41.54	41.54	41.54	41.54	41.54	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	0.00	N/A
Renewables 2/	6.76	6.63	6.75	6.58	6.59	6.70	6.82	7.02	7.17	7.21	7.21	7.30	4.5%
Total	353.33	357.38	361.45	365.61	368.38	371.70	374.00	377.06	381.43	386.29	391.73	396.04	1.6%
<b>Mid-Atlantic Area Council</b>													
Coal	148.02	148.26	148.59	149.00	154.01	156.31	160.46	165.28	167.43	169.48	173.64	178.64	1.9%
Petroleum	3.61	4.47	4.15	4.09	4.19	3.62	4.00	4.11	3.88	3.38	3.57	3.22	-2.8%
Natural Gas	50.10	53.77	57.65	60.17	59.88	61.77	62.96	63.15	63.63	65.17	66.13	65.75	4.2%
Nuclear	109.37	109.37	109.37	111.38	111.38	111.38	111.38	111.38	111.38	111.38	111.38	111.38	0.2%
Pumped Storage/Other 1/	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	3.1%
Renewables 2/	12.47	12.48	12.47	12.45	12.42	12.44	12.59	12.89	13.06	13.13	13.16	13.07	2.5%
Total	323.22	328.08	332.05	336.97	341.82	345.52	351.47	356.94	359.59	362.82	368.23	372.48	1.6%
<b>Mid-America Interconnected Network</b>													
Coal	207.67	209.42	210.23	210.78	208.16	207.78	207.83	204.06	203.30	202.74	203.02	205.28	1.2%
Petroleum	0.56	0.58	0.64	0.78	0.73	0.63	0.74	1.25	1.16	1.12	1.44	1.41	2.2%
Natural Gas	37.24	37.57	39.00	41.13	43.34	44.31	45.32	46.81	46.39	47.86	50.29	53.21	6.2%
Nuclear	115.23	115.23	117.16	117.16	117.16	117.16	117.16	117.16	117.16	117.16	117.16	117.16	0.2%
Pumped Storage/Other 1/	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	1.1%
Renewables 2/	5.78	5.79	5.79	5.79	6.02	6.08	6.12	6.15	6.19	6.23	6.23	6.29	2.1%
Total	366.32	368.44	372.71	375.59	375.41	376.02	377.27	375.60	374.43	375.40	378.48	383.75	1.3%
<b>Mid-Continent Area Power Pool</b>													
Coal	136.85	136.88	137.10	139.12	143.82	152.08	158.61	165.08	168.88	173.54	175.54	175.53	1.4%
Petroleum	0.80	1.03	1.13	1.13	0.86	0.63	0.65	0.96	1.07	0.86	1.12	1.14	1.8%
Natural Gas	3.85	4.43	4.91	5.25	5.56	5.61	6.52	5.85	5.41	4.95	5.63	6.50	5.0%
Nuclear	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	27.39	-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	0.00	N/A
Renewables 2/	22.71	22.86	23.02	23.02	23.02	23.02	23.07	23.06	23.06	23.06	23.06	23.04	2.5%
Total	191.66	192.68	193.64	196.02	200.76	208.85	216.41	222.55	226.04	230.05	233.00	233.85	1.3%
<b>Northeast Power Coordinating Council/ New York</b>													
Coal	26.22	26.28	26.31	26.30	26.30	26.31	26.31	26.34	30.66	34.17	40.20	45.23	2.7%
Petroleum	11.79	12.74	11.69	11.92	11.95	11.53	12.03	11.61	11.31	11.27	10.84	10.75	-0.3%
Natural Gas	53.97	56.04	59.61	60.77	62.27	64.29	65.02	68.12	67.09	66.44	65.86	65.10	2.5%
Nuclear	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	0.1%
Pumped Storage/Other 1/	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	-0.92	0.0%
Renewables 2/	30.19	30.19	30.20	30.20	30.19	30.19	30.19	30.31	30.35	30.37	30.36	30.35	0.4%
Total	161.69	164.76	167.31	168.70	170.21	171.83	173.06	175.89	178.90	181.75	186.75	190.94	1.4%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Northeast Power Coordinating Council/ New England													
Coal	21.63	21.63	21.63	21.63	21.61	21.63	21.61	21.61	21.61	21.61	21.63	25.95	1.5%
Petroleum	29.07	27.91	29.05	30.24	26.99	24.09	20.42	21.04	22.07	19.52	19.55	17.78	2.8%
Natural Gas	47.41	48.21	49.57	50.71	55.70	60.44	63.12	65.12	65.44	70.10	70.76	71.13	2.4%
Nuclear	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	34.16	0.0%
Pumped Storage/Other 1/	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	0.0%
Renewables 2/	14.34	14.49	14.65	14.98	15.54	16.26	16.26	16.72	17.26	18.07	20.24	20.25	2.4%
Total	145.76	145.55	148.22	150.88	153.17	155.75	154.75	157.83	159.72	162.65	165.53	168.46	1.7%
Southeastern Electric Reliability Council/ Florida													
Coal	89.60	89.58	90.75	90.82	94.70	97.06	110.81	127.14	143.14	156.35	163.16	170.38	5.4%
Petroleum	28.89	32.77	31.09	30.10	26.08	25.41	22.76	24.46	19.95	16.55	18.53	20.33	-2.0%
Natural Gas	83.43	87.91	95.75	102.44	108.35	112.01	110.40	101.99	103.03	100.29	98.39	95.01	2.1%
Nuclear	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	33.89	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	0.00	N/A
Renewables 2/	4.96	4.99	4.98	5.12	5.61	6.04	6.26	6.34	6.31	6.32	6.39	6.51	2.4%
Total	240.79	249.16	256.50	262.43	268.72	274.52	284.27	293.99	306.51	313.60	320.59	326.35	2.6%
Southeastern Electric Reliability Council/ excluding Florida													
Coal	511.56	512.00	512.35	515.10	539.31	569.87	594.30	626.66	662.24	695.27	711.12	731.93	2.1%
Petroleum	9.46	10.84	11.25	10.43	9.56	9.22	8.96	9.49	8.97	8.45	8.79	8.78	1.1%
Natural Gas	165.40	173.93	191.90	205.71	206.65	198.61	194.75	183.00	176.04	168.25	173.36	171.62	2.3%
Nuclear	268.16	269.12	269.12	269.12	269.12	269.12	269.12	269.12	269.12	269.12	269.12	269.12	0.3%
Pumped Storage/Other 1/	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-3.04	-0.5%
Renewables 2/	41.73	42.51	42.53	42.93	42.96	42.98	42.99	42.87	42.81	42.67	42.52	42.27	1.5%
Total	993.26	1005.36	1024.11	1040.24	1064.56	1086.80	1107.15	1128.20	1156.29	1180.87	1202.02	1220.83	1.6%
Southwest Power Pool													
Coal	144.79	144.79	144.62	144.41	149.23	149.23	149.15	148.64	154.00	159.31	162.81	168.62	1.0%
Petroleum	1.14	1.61	1.55	1.25	1.00	0.92	0.97	1.91	0.95	0.87	0.92	1.03	2.7%
Natural Gas	56.60	58.55	63.05	67.64	68.00	69.65	71.36	71.46	69.97	67.27	68.54	66.57	2.1%
Nuclear	9.39	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/	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	2.0%
Renewables 2/	6.50	6.64	6.81	6.86	6.87	6.88	6.86	6.90	7.11	7.09	7.09	6.88	0.2%
Total	218.14	220.70	225.14	229.27	234.22	235.79	237.45	238.02	241.15	243.65	248.48	252.21	1.2%
Western Electricity Coordinating Council/ Northwest Power Pool Area													
Coal	117.48	125.98	140.30	156.69	157.00	165.49	175.28	186.09	197.43	212.88	217.21	228.42	5.2%
Petroleum	0.90	0.95	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	-2.3%
Natural Gas	32.67	31.51	25.99	20.97	27.62	23.70	27.17	27.44	25.73	21.03	21.79	18.22	1.6%
Nuclear	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	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	0.00	N/A
Renewables 2/	165.70	166.56	167.01	168.44	168.90	169.80	170.38	170.83	171.27	171.33	172.11	174.79	1.2%
Total	325.97	334.33	342.98	355.89	363.34	368.91	382.85	394.49	404.58	415.43	421.34	431.69	2.9%

Table 74. Electric Generation by Electricity Market Module Region and Source  
(Billion Kilowatt-hours)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Western Electricity Coordinating Council/ Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area													
Coal	139.05	156.69	156.67	174.90	175.32	180.65	188.63	197.01	205.47	213.37	218.81	225.24	2.6%
Petroleum	0.34	0.36	0.36	0.34	0.31	0.26	0.29	0.33	0.33	0.32	0.32	0.17	1.0%
Natural Gas	65.78	56.49	55.02	43.85	48.36	50.26	47.00	42.37	39.07	35.00	35.58	34.58	-0.6%
Nuclear	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	0.1%
Pumped Storage/Other 1/	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	3.5%
Renewables 2/	24.45	24.72	24.79	24.80	24.81	25.21	25.62	25.65	25.68	25.69	26.42	27.26	2.5%
Total	252.36	261.00	259.60	266.67	271.59	279.21	284.38	288.23	293.45	297.30	304.06	310.19	1.9%
Western Electricity Coordinating Council/ California													
Coal	73.97	73.97	89.69	89.65	89.61	89.61	89.61	89.42	94.06	106.30	113.84	121.80	6.7%
Petroleum	1.54	1.76	1.63	1.40	1.64	1.29	1.27	1.82	1.95	1.79	2.00	1.63	-0.8%
Natural Gas	81.02	80.34	73.93	75.27	78.48	83.51	78.14	76.01	74.98	70.07	70.93	69.35	-0.2%
Nuclear	43.76	43.82	43.82	43.82	43.82	43.82	43.82	43.82	43.82	43.82	43.82	43.82	0.1%
Pumped Storage/Other 1/	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	-0.95	7.8%
Renewables 2/	72.61	74.85	76.04	76.73	77.36	79.38	86.19	90.89	91.46	91.98	92.71	93.85	3.0%
Total	277.36	285.85	293.48	302.87	314.14	326.30	335.63	340.23	343.47	351.23	359.81	370.76	2.6%



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

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. Values represent generation for utilities and nonutilities (excluding combined heat and power).

Sources: 2002: Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>East Central Area Reliability Coordination Agreement</b>													
Coal Steam	84.34	84.34	84.33	84.17	83.59	82.17	81.85	81.85	81.32	81.32	81.32	81.32	81.32
Other Fossil Steam 1/	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.81	3.81	3.81	3.81	3.81
Combined Cycle	4.24	8.72	11.97	12.95	12.95	12.95	12.95	12.95	12.91	12.91	13.96	14.60	15.67
Combustion Turbine/ Diesel	13.84	19.59	21.22	21.22	21.14	21.14	21.11	21.08	18.97	19.21	19.83	19.93	20.20
Nuclear Power	7.68	7.69	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72
Pumped Storage/Other 2/	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36
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/	1.72	1.73	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.92	1.95	2.01
Total	119.01	129.25	134.27	135.09	134.43	133.01	132.67	132.63	129.94	130.18	131.92	132.70	134.09
<b>Electric Reliability Council of Texas</b>													
Coal Steam	15.24	15.24	15.24	15.24	15.24	15.24	15.24	15.24	15.59	15.59	15.59	15.59	15.59
Other Fossil Steam 1/	30.08	30.01	29.72	29.48	28.95	27.99	25.73	24.59	21.33	20.90	20.81	19.77	19.67
Combined Cycle	11.15	16.05	19.10	19.78	19.78	19.78	19.78	19.78	21.09	22.38	23.02	23.65	24.83
Combustion Turbine/ Diesel	6.02	6.58	6.16	6.16	6.14	6.14	5.79	5.79	6.20	7.24	7.60	8.27	8.55
Nuclear Power	4.83	4.83	4.87	4.87	4.87	4.87	4.87	4.87	4.87	4.95	4.95	4.95	4.95
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/	1.52	1.81	2.06	2.08	2.08	2.08	2.08	2.09	2.12	2.18	2.20	2.21	2.21
Total	68.84	74.52	77.14	77.60	77.06	76.11	73.49	72.43	71.36	73.46	74.47	74.81	76.23
<b>Mid-Atlantic Area Council</b>													
Coal Steam	20.20	20.09	19.89	20.42	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37
Other Fossil Steam 1/	8.36	8.36	8.36	8.36	8.36	8.36	8.36	8.36	8.36	8.33	8.33	8.33	8.33
Combined Cycle	5.80	9.37	12.97	13.70	13.70	13.70	13.70	13.70	13.70	13.97	14.30	14.30	14.57
Combustion Turbine/ Diesel	9.93	11.18	11.77	11.91	11.91	11.91	11.91	11.91	11.78	12.76	13.67	14.14	14.91
Nuclear Power	13.02	13.04	13.14	13.30	13.30	13.41	13.41	13.41	13.43	13.43	13.43	13.43	13.43
Pumped Storage/Other 2/	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
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/	1.91	1.92	1.95	1.95	1.96	1.96	1.97	1.98	1.98	2.01	2.01	2.01	2.01
Total	60.53	65.27	69.39	70.96	70.91	71.02	71.03	71.04	71.01	72.33	73.64	74.18	75.29
<b>Mid-America Interconnected Network</b>													
Coal Steam	29.55	29.55	29.55	29.55	29.23	29.76	29.67	29.67	29.54	29.54	29.54	29.54	29.54
Other Fossil Steam 1/	3.99	4.00	4.00	4.00	4.00	4.00	4.00	4.00	2.28	0.05	0.03	0.03	0.03
Combined Cycle	1.90	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Combustion Turbine/ Diesel	11.98	15.49	15.61	15.61	15.48	15.48	15.48	15.48	15.21	15.21	15.21	15.00	15.00
Nuclear Power	13.67	14.07	14.08	14.08	14.08	14.14	14.14	14.26	14.26	14.26	14.34	14.34	14.34
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/	1.04	1.06	1.12	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Total	62.58	68.87	69.06	69.07	68.61	69.19	69.11	69.22	67.10	64.87	64.93	64.72	64.72
<b>Mid-Continent Area Power Pool</b>													
Coal Steam	18.67	18.67	18.67	18.67	18.67	18.64	18.64	18.64	18.63	18.63	18.63	18.63	18.63
Other Fossil Steam 1/	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
Combined Cycle	0.61	0.76	0.76	0.76	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Combustion Turbine/ Diesel	6.17	6.66	7.40	7.49	7.49	7.49	7.56	8.20	8.74	9.24	9.65	9.82	10.17
Nuclear Power	3.32	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34
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/	4.07	4.32	4.64	4.66	4.69	4.87	5.25	5.29	5.33	5.47	5.47	5.47	5.47
Total	33.39	34.30	35.37	35.47	35.73	35.88	36.35	37.04	37.63	38.28	38.70	38.88	39.26

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Northeast Power Coordinating Council/ New York													
Coal Steam	3.74	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
Other Fossil Steam 1/	12.44	12.44	12.44	12.44	12.44	12.44	12.44	12.44	11.33	10.43	10.43	10.43	10.13
Combined Cycle	3.94	3.94	5.19	5.19	5.19	5.19	5.19	5.19	5.19	6.07	6.44	6.45	6.98
Combustion Turbine/ Diesel	4.09	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.52	4.52	4.52	4.52	4.52
Nuclear Power	5.05	5.05	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07
Pumped Storage/Other 2/	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28
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/	4.67	4.82	4.89	4.97	5.04	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.18
Total	35.21	35.98	37.33	37.40	37.48	37.62	37.62	37.62	36.33	36.30	36.68	36.68	36.92
Northeast Power Coordinating Council/ New England													
Coal Steam	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.93	2.93	2.93	2.93	2.93
Other Fossil Steam 1/	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	6.75	6.75	6.75	6.75	6.75
Combined Cycle	6.95	9.70	9.91	9.91	9.91	9.91	9.91	9.91	9.91	9.76	10.21	10.32	10.51
Combustion Turbine/ Diesel	1.96	2.98	2.99	2.99	2.99	2.99	2.99	2.99	2.73	2.73	2.73	2.73	2.73
Nuclear Power	4.35	4.34	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/	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.05
Renewable Sources 3/	2.80	2.80	2.83	2.89	2.91	2.92	2.95	3.01	3.07	3.10	3.20	3.20	3.22
Total	28.53	32.30	32.56	32.63	32.64	32.65	32.70	32.78	31.51	31.39	31.94	32.04	32.25
Southeastern Electric Reliability Council/ Florida													
Coal Steam	10.97	11.49	11.49	10.37	10.37	10.37	10.80	11.55	11.55	11.55	12.02	12.02	12.02
Other Fossil Steam 1/	12.44	11.50	10.76	10.76	10.58	10.58	10.58	10.58	10.52	10.52	10.52	10.52	10.52
Combined Cycle	5.04	7.25	9.06	10.89	10.89	10.89	10.89	11.21	12.10	13.01	14.77	16.33	18.26
Combustion Turbine/ Diesel	7.61	12.69	12.69	12.95	16.66	16.52	16.45	16.76	17.08	17.54	17.56	17.63	17.63
Nuclear Power	3.90	3.91	3.91	3.91	3.91	3.91	3.91	3.93	3.93	3.93	3.93	3.93	3.93
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/	0.59	0.59	0.59	0.59	0.59	0.59	0.61	0.61	0.61	0.64	0.67	0.67	0.67
Total	40.53	47.43	48.50	49.46	52.99	52.86	53.23	54.62	55.77	57.19	59.46	61.10	63.03
Southeastern Electric Reliability Council/ excluding Florida													
Coal Steam	71.73	71.60	71.38	71.38	71.38	71.38	71.27	71.27	71.24	71.24	71.24	71.24	71.24
Other Fossil Steam 1/	19.01	18.98	18.78	18.76	18.76	18.73	18.73	18.68	15.25	15.21	15.21	15.21	15.21
Combined Cycle	10.85	22.01	34.32	34.84	34.84	34.84	34.84	34.84	34.83	34.83	34.83	35.11	35.98
Combustion Turbine/ Diesel	24.12	27.80	29.72	29.72	29.72	29.63	29.51	29.51	27.02	26.91	27.66	29.06	32.22
Nuclear Power	32.06	32.15	32.30	32.43	32.73	32.86	32.98	32.99	33.03	33.08	33.10	33.46	33.82
Pumped Storage/Other 2/	6.47	6.81	6.87	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94
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/	11.77	11.79	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.95	11.99	12.34
Total	176.01	191.15	205.16	205.86	206.16	206.17	206.06	206.02	200.10	199.99	200.91	203.00	207.74
Southwest Power Pool													
Coal Steam	21.60	21.60	21.60	21.60	21.60	21.60	20.06	19.58	19.58	19.58	19.58	19.58	19.58
Other Fossil Steam 1/	13.23	13.09	13.01	12.96	11.60	10.97	10.66	10.63	10.03	8.47	7.88	7.86	7.83
Combined Cycle	3.65	9.55	11.08	11.08	11.08	11.08	11.08	11.08	10.78	10.78	10.78	10.78	11.06
Combustion Turbine/ Diesel	5.25	6.49	6.92	6.92	6.86	6.75	6.75	6.75	6.07	6.02	6.02	6.02	6.02
Nuclear Power	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	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/	2.67	2.68	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.87	2.87	2.87	2.87
Total	48.07	55.09	57.14	57.09	55.67	54.93	53.08	52.57	50.99	49.39	48.81	48.79	49.05

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Western Electricity Coordinating Council/ Northwest Power Pool Area													
Coal Steam	11.42	11.42	11.50	11.50	11.50	11.50	11.50	11.50	12.62	13.60	13.93	14.81	14.81
Other Fossil Steam 1/	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Combined Cycle	2.32	3.83	4.38	4.38	4.38	4.38	4.38	4.38	4.14	4.87	4.87	4.87	6.10
Combustion Turbine/ Diesel	1.59	2.47	2.47	2.48	3.03	3.03	3.03	3.03	2.77	2.77	2.77	2.77	3.00
Nuclear Power	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.12	1.12	1.12	1.12	1.12
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/	36.46	36.59	36.70	36.70	36.71	36.71	36.76	36.91	37.04	37.31	37.47	37.64	37.82
Total	53.92	56.45	57.18	57.19	57.74	57.75	57.80	57.95	58.73	60.70	61.22	62.32	64.01
Western Electricity Coordinating Council/ Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area													
Coal Steam	15.61	15.61	15.61	15.61	15.61	15.50	15.50	15.50	15.50	15.50	15.50	15.50	16.86
Other Fossil Steam 1/	2.79	2.79	2.68	2.68	2.68	2.64	2.64	2.64	2.14	2.05	1.40	1.40	1.40
Combined Cycle	5.12	8.85	14.97	16.07	16.07	16.07	16.07	16.07	15.69	15.69	15.69	15.69	15.69
Combustion Turbine/ Diesel	3.39	5.21	5.64	5.64	5.64	5.64	5.64	5.64	4.43	4.43	4.43	4.43	4.43
Nuclear Power	2.71	2.71	2.73	2.73	2.75	2.75	2.78	2.78	2.78	2.78	2.78	2.78	2.78
Pumped Storage/Other 2/	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
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/	6.12	6.13	6.66	6.67	6.82	6.87	6.89	6.92	6.97	7.00	7.05	7.08	7.22
Total	36.49	42.04	49.04	50.15	50.32	50.22	50.27	50.30	48.25	48.19	47.60	47.62	49.12
Western Electricity Coordinating Council/ California													
Coal Steam	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	5.19	6.66	7.27	8.18	8.96
Other Fossil Steam 1/	19.67	19.55	18.52	18.52	18.52	18.52	18.52	18.52	18.34	18.34	18.34	18.34	18.34
Combined Cycle	3.93	6.19	8.87	9.98	10.51	10.51	10.51	10.51	10.51	10.51	10.51	10.51	10.51
Combustion Turbine/ Diesel	6.02	6.98	7.90	7.90	7.89	7.89	7.89	7.89	7.89	7.89	7.89	7.95	8.60
Nuclear Power	5.35	5.35	5.36	5.36	5.36	5.36	5.37	5.37	5.37	5.37	5.37	5.37	5.37
Pumped Storage/Other 2/	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73
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/	15.33	15.47	15.72	15.69	15.77	16.16	16.45	16.69	16.80	16.90	17.08	17.28	17.48
Total	58.66	61.90	64.73	65.81	66.41	66.79	67.10	67.34	67.83	69.40	70.22	71.42	73.12

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>East Central Area Reliability Coordination Agreement</b>													
Coal Steam	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	-0.2%
Other Fossil Steam 1/	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	0.0%
Combined Cycle	17.12	18.36	19.28	20.80	22.42	24.16	25.71	27.66	29.13	31.03	32.03	33.97	6.1%
Combustion Turbine/ Diesel	20.20	20.47	20.47	20.53	20.73	21.13	21.62	22.11	22.77	23.39	24.02	24.69	1.0%
Nuclear Power	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	7.72	0.0%
Pumped Storage/Other 2/	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	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	0.00	N/A
Renewable Sources 3/	2.01	2.06	2.15	2.20	2.30	2.39	2.42	2.42	2.42	2.42	2.42	2.42	1.5%
Total	135.54	137.11	138.12	139.74	141.67	143.88	145.96	148.40	150.57	153.09	154.72	157.33	0.9%
<b>Electric Reliability Council of Texas</b>													
Coal Steam	15.59	15.59	15.59	15.59	15.59	15.59	15.59	15.59	15.59	16.65	17.20	18.19	0.8%
Other Fossil Steam 1/	19.67	19.51	19.51	19.51	19.11	18.97	18.75	18.17	17.93	17.70	17.57	16.77	-2.5%
Combined Cycle	25.68	26.10	26.53	27.74	27.74	28.46	29.17	30.29	31.10	31.34	31.50	31.97	3.0%
Combustion Turbine/ Diesel	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.54	8.54	1.1%
Nuclear Power	4.95	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	0.3%
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	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	0.00	N/A
Renewable Sources 3/	2.21	2.21	2.21	2.22	2.22	2.25	2.28	2.31	2.31	2.32	2.32	2.36	1.2%
Total	77.16	77.73	78.22	79.49	79.15	79.81	80.38	81.00	81.62	82.74	83.35	84.10	0.5%
<b>Mid-Atlantic Area Council</b>													
Coal Steam	20.37	20.37	20.37	20.37	21.06	21.36	21.90	22.57	22.87	23.13	23.67	24.37	0.8%
Other Fossil Steam 1/	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	0.0%
Combined Cycle	14.57	14.94	14.98	15.47	15.47	15.92	16.07	16.31	16.95	17.54	17.54	17.54	2.8%
Combustion Turbine/ Diesel	15.64	15.93	15.93	16.02	16.02	16.02	16.02	16.09	16.21	16.47	16.47	16.47	1.7%
Nuclear Power	13.43	13.43	13.43	13.67	13.67	13.67	13.67	13.67	13.67	13.67	13.67	13.67	0.2%
Pumped Storage/Other 2/	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	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	0.00	N/A
Renewable Sources 3/	2.01	2.01	2.01	2.01	2.01	2.05	2.10	2.15	2.19	2.22	2.22	2.22	0.6%
Total	76.22	77.07	77.28	78.25	79.10	80.03	80.92	82.11	83.38	84.69	85.38	86.23	1.2%
<b>Mid-America Interconnected Network</b>													
Coal Steam	29.54	29.54	29.54	29.54	29.05	29.05	29.05	28.47	28.47	28.47	28.47	28.77	-0.1%
Other Fossil Steam 1/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	-18.9%
Combined Cycle	4.25	4.25	4.25	4.25	4.36	4.55	4.71	5.23	5.29	5.57	5.89	6.47	1.8%
Combustion Turbine/ Diesel	15.00	15.00	15.17	15.73	16.71	17.30	17.76	18.72	19.45	20.16	20.45	20.63	1.3%
Nuclear Power	14.34	14.34	14.58	14.58	14.58	14.58	14.58	14.58	14.58	14.58	14.58	14.58	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	0.44	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	0.00	N/A
Renewable Sources 3/	1.13	1.13	1.13	1.13	1.22	1.22	1.22	1.24	1.24	1.24	1.24	1.30	0.9%
Total	64.76	64.79	65.32	66.00	66.81	67.72	68.45	69.51	70.44	71.57	72.31	73.57	0.3%
<b>Mid-Continent Area Power Pool</b>													
Coal Steam	18.63	18.63	18.66	18.94	19.57	20.68	21.58	22.47	22.99	23.64	23.91	23.91	1.1%
Other Fossil Steam 1/	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.43	-1.2%
Combined Cycle	0.97	0.97	0.97	0.97	0.97	0.97	1.18	1.18	1.18	1.18	1.18	1.18	1.9%
Combustion Turbine/ Diesel	10.72	11.35	11.76	12.01	12.01	11.60	10.99	10.95	12.02	12.02	12.02	12.02	2.6%
Nuclear Power	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	N/A
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	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	0.00	N/A
Renewable Sources 3/	5.50	5.54	5.59	5.59	5.59	5.59	5.61	5.61	5.61	5.61	5.61	5.61	1.1%
Total	39.87	40.57	41.08	41.64	42.29	43.03	43.64	44.59	46.23	46.91	47.22	47.08	1.4%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Northeast Power Coordinating Council/ New York</b>													
Coal Steam	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	4.32	4.80	5.62	6.29	2.3%
Other Fossil Steam 1/	10.13	10.00	10.00	10.00	10.00	10.00	10.00	9.45	8.93	8.93	8.55	7.73	-2.1%
Combined Cycle	7.38	7.79	8.06	8.31	8.50	8.76	8.78	9.32	9.32	9.32	9.32	9.32	3.8%
Combustion Turbine/ Diesel	4.52	4.52	4.52	4.52	4.52	4.24	4.24	4.24	4.24	4.24	4.24	3.96	-0.7%
Nuclear Power	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	0.0%
Pumped Storage/Other 2/	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	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	0.00	N/A
Renewable Sources 3/	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.21	5.21	5.21	5.21	5.21	0.3%
Total	37.32	37.60	37.86	38.12	38.30	38.29	38.31	38.32	38.38	38.86	39.30	38.86	0.3%
<b>Northeast Power Coordinating Council/ New England</b>													
Coal Steam	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	3.51	0.8%
Other Fossil Steam 1/	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	-0.6%
Combined Cycle	10.73	10.99	11.20	11.48	11.85	12.26	12.62	12.98	13.39	13.87	14.14	14.14	1.6%
Combustion Turbine/ Diesel	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	-0.4%
Nuclear Power	4.36	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/	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	N/A
Fuel Cells	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	N/A
Renewable Sources 3/	3.22	3.26	3.30	3.39	3.55	3.74	3.74	3.87	4.02	4.23	4.82	4.82	2.4%
Total	32.49	32.80	33.06	33.44	33.96	34.58	34.95	35.44	36.00	36.72	37.57	38.15	0.7%
<b>Southeastern Electric Reliability Council/ Florida</b>													
Coal Steam	12.02	12.02	12.18	12.18	12.70	13.02	14.87	17.08	19.23	21.08	22.00	22.99	3.1%
Other Fossil Steam 1/	10.52	10.52	10.52	10.01	10.01	10.01	9.94	9.94	9.94	9.70	9.70	9.70	-0.7%
Combined Cycle	19.88	21.25	21.81	22.60	23.48	24.33	24.33	24.33	24.33	24.33	24.33	24.33	5.4%
Combustion Turbine/ Diesel	17.63	17.63	17.63	17.84	18.18	18.62	18.62	18.62	18.62	18.62	18.62	18.54	1.7%
Nuclear Power	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	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	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	0.00	N/A
Renewable Sources 3/	0.67	0.67	0.67	0.72	0.83	0.88	0.88	0.88	0.88	0.88	0.92	0.95	2.1%
Total	64.68	66.08	66.82	67.41	69.32	71.05	72.89	75.18	77.37	79.01	80.00	80.97	2.4%
<b>Southeastern Electric Reliability Council/ excluding Florida</b>													
Coal Steam	70.71	70.71	70.71	70.98	74.25	78.47	81.92	86.51	91.52	96.12	98.24	101.01	1.5%
Other Fossil Steam 1/	14.90	14.90	14.90	14.82	14.82	14.72	14.72	14.72	14.72	14.72	14.72	14.72	-1.1%
Combined Cycle	38.73	40.91	42.15	43.89	43.89	43.89	44.80	45.43	45.43	45.43	45.58	45.76	3.2%
Combustion Turbine/ Diesel	34.35	35.67	36.70	37.32	37.32	37.32	37.56	37.65	37.65	37.65	37.85	38.06	1.4%
Nuclear Power	34.18	34.30	34.30	34.30	34.30	34.30	34.30	34.30	34.30	34.30	34.30	34.30	0.3%
Pumped Storage/Other 2/	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	0.1%
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	N/A
Renewable Sources 3/	12.54	12.67	12.67	12.82	12.82	12.82	12.85	12.85	12.85	12.85	12.88	12.94	0.4%
Total	212.35	216.11	218.37	221.08	224.35	228.54	233.24	238.64	243.74	248.34	250.85	254.06	1.2%
<b>Southwest Power Pool</b>													
Coal Steam	19.58	19.58	19.58	19.58	20.23	20.23	20.23	20.16	20.88	21.62	22.09	22.89	0.3%
Other Fossil Steam 1/	7.83	7.83	7.83	7.83	7.77	7.77	7.77	7.77	7.77	7.77	7.77	7.77	-2.2%
Combined Cycle	11.66	12.06	12.41	12.98	12.98	13.63	14.18	14.76	14.76	14.76	14.76	14.76	1.9%
Combustion Turbine/ Diesel	6.26	6.53	6.68	6.68	6.68	6.68	6.78	6.85	6.83	6.83	6.83	6.83	0.2%
Nuclear Power	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	0.0%
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	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	0.00	N/A
Renewable Sources 3/	2.88	2.88	2.88	2.89	2.89	2.89	2.93	2.94	2.94	2.94	2.94	2.95	0.4%
Total	49.90	50.56	51.06	51.64	52.24	52.89	53.58	54.16	54.88	55.62	56.09	56.89	0.1%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Western Electricity Coordinating Council/ Northwest Power Pool Area													
Coal Steam	15.61	16.75	18.67	20.93	20.93	22.10	23.44	24.96	26.60	29.24	29.72	31.47	4.5%
Other Fossil Steam 1/	0.72	0.72	0.72	0.72	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	-0.1%
Combined Cycle	6.99	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	3.0%
Combustion Turbine/ Diesel	3.00	3.18	3.18	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.22	1.1%
Nuclear Power	1.12	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 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	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	0.00	N/A
Renewable Sources 3/	37.91	38.04	38.10	38.34	38.40	38.50	38.58	38.64	38.69	38.70	38.83	39.39	0.3%
Total	65.84	68.10	70.15	73.39	73.51	75.01	76.66	78.48	80.25	82.97	83.66	85.59	1.8%
Western Electricity Coordinating Council/ Rocky Mountain Power Area and Arizona-New Mexico-Southern Nevada Power Area													
Coal Steam	18.19	20.56	20.56	23.09	23.09	23.83	25.05	26.34	27.66	28.94	29.76	30.79	3.0%
Other Fossil Steam 1/	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	-3.0%
Combined Cycle	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	15.69	2.5%
Combustion Turbine/ Diesel	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	-0.7%
Nuclear Power	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	0.1%
Pumped Storage/Other 2/	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	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	0.00	N/A
Renewable Sources 3/	7.27	7.31	7.32	7.32	7.32	7.38	7.43	7.43	7.44	7.44	7.58	7.75	1.0%
Total	50.52	52.96	52.98	55.57	55.60	56.46	57.78	59.14	60.53	61.87	62.85	64.08	1.8%
Western Electricity Coordinating Council/ California													
Coal Steam	9.77	9.77	11.89	11.89	11.89	11.89	11.89	11.89	12.54	14.39	15.55	16.80	5.8%
Other Fossil Steam 1/	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	18.34	-0.3%
Combined Cycle	10.51	10.82	10.82	11.54	12.54	12.54	12.54	12.54	12.54	12.54	12.54	12.54	3.1%
Combustion Turbine/ Diesel	9.62	12.09	13.01	14.58	14.67	15.50	16.28	17.59	19.01	19.25	19.65	20.28	4.8%
Nuclear Power	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	0.0%
Pumped Storage/Other 2/	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	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	0.00	N/A
Renewable Sources 3/	17.76	18.25	18.45	18.53	18.63	19.03	20.71	21.80	21.86	21.92	22.03	22.22	1.6%
Total	75.32	78.68	82.29	85.02	86.57	88.13	90.91	93.63	96.08	98.56	100.58	102.98	2.2%

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. Values represent net summer capacity for utilities and nonutilities (excluding combined heat and power).

Net summer capacity is the steady hourly output that generating equipment is expected to supply to system load as demonstrated by tests during summer peak load.

Sources: 2002: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report." Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.



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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	1.32	1.32	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
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/	0.16	0.17	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/	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
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	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.14	0.18	0.23
Total	1.72	1.73	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.92	1.95	2.01
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	3.85	3.24	2.82	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
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/	0.82	0.89	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34
Wood and Other Biomass 4/	1.30	1.29	2.75	1.79	2.34	2.46	2.79	2.78	3.03	3.74	3.88	3.96	3.90
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	0.19	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.51	0.63	0.83
Total	5.98	5.41	7.10	6.58	7.13	7.25	7.58	7.57	7.83	8.53	8.94	9.13	9.28
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.04	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 3/	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
Wood and Other Biomass 4/	0.02	0.03	0.04	0.03	0.04	0.04	0.04	0.04	0.04	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	0.01	0.01	0.01
Total	0.07	0.07	0.09	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.11	0.11	0.11
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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/	0.11	0.11	0.11	0.12	0.13	0.13	0.14	0.14	0.14	0.15	0.16	0.16	0.17
Total	0.11	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.18
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.27	0.28	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Wood and Other Biomass 4/	4.03	4.22	4.28	4.53	4.77	4.94	5.05	5.16	5.30	5.49	5.68	5.88	6.09
Total	4.30	4.49	4.59	4.84	5.09	5.25	5.37	5.47	5.62	5.80	5.99	6.20	6.41

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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/	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.09
Total	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	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
Solar Photovoltaic	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	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.48	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
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
Solar Photovoltaic	0.01	0.01	0.02	0.02	0.03	0.05	0.06	0.08	0.10	0.12	0.13	0.13	0.13
Total	0.49	0.63	0.63	0.64	0.65	0.66	0.68	0.69	0.71	0.74	0.74	0.74	0.75
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	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
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
Solar Photovoltaic	0.00	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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	0.1%
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	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	0.18	0.1%
Wood and Other Biomass 4/	0.23	0.23	0.23	0.23	0.23	0.23	0.26	0.26	0.26	0.26	0.26	0.26	0.5%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.23	0.28	0.38	0.42	0.53	0.62	0.62	0.62	0.62	0.62	0.62	0.62	26.4%
Total	2.01	2.06	2.15	2.20	2.30	2.39	2.42	2.42	2.42	2.42	2.42	2.42	1.5%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	-0.1%
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	N/A
Municipal Solid Waste 3/	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.8%
Wood and Other Biomass 4/	3.95	3.98	4.00	4.02	3.74	3.59	3.64	3.30	3.17	3.19	3.18	3.08	3.9%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.83	1.01	1.35	1.51	1.89	2.19	2.19	2.19	2.19	2.19	2.19	2.19	N/A
Total	9.32	9.53	9.90	10.08	10.18	10.33	10.38	10.04	9.91	9.93	9.92	9.82	2.6%
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	0.03	-0.1%
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	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	0.02	0.7%
Wood and Other Biomass 4/	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	2.1%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
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	N/A
Total	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	1.9%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
Wood and Other Biomass 4/	0.18	0.18	0.19	0.19	0.20	0.20	0.20	0.21	0.21	0.22	0.22	0.22	3.2%
Total	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.21	0.22	0.22	0.23	0.23	3.0%
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.6%
Wood and Other Biomass 4/	6.28	6.44	6.58	6.74	6.90	7.02	7.15	7.27	7.40	7.54	7.68	7.83	2.7%
Total	6.60	6.75	6.90	7.06	7.21	7.34	7.46	7.59	7.72	7.86	7.99	8.14	2.6%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
Energy Consumption (quadrillion Btu)														
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	0.0%
Wood and Other Biomass 4/	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11	2.4%
Total	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	2.2%
Other End-Use Generators 7/														
Generating Capacity (gigawatts)														
Conventional Hydropower 8/	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	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	0.00	0.00	N/A
Solar Photovoltaic	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03	15.4%
Total	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.06	3.1%
Electricity Generation (billion kilowatthours)														
Conventional Hydropower 8/	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	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	0.00	0.00	N/A
Solar Photovoltaic	0.13	0.14	0.14	0.14	0.15	0.16	0.19	0.22	0.25	0.28	0.32	0.36	0.36	15.4%
Total	0.75	0.75	0.75	0.76	0.77	0.78	0.80	0.83	0.87	0.90	0.94	0.98	0.98	1.9%
Energy Consumption (quadrillion Btu)														
Conventional Hydropower 8/	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	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	0.00	0.00	N/A
Solar Photovoltaic	0.00	0.00	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	0.01	0.01	0.0%

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.
  - 6/ Combined heat and power produces electricity and other useful thermal energy.
  - 7/ Includes 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.
  - 8/ Represents own-use industrial hydroelectric power.
- Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.
- Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
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	0.07	0.12	0.12	0.12	0.12	0.12	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/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
Wind	0.98	1.22	1.42	1.44	1.44	1.44	1.44	1.44	1.48	1.53	1.56	1.56	1.56
Total	1.52	1.81	2.06	2.08	2.08	2.08	2.08	2.09	2.12	2.18	2.20	2.21	2.21
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	0.89	0.61	0.64	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
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	0.20	0.81	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Wood and Other Biomass 4/	0.20	0.26	0.27	0.44	0.57	0.59	0.60	0.28	0.49	0.50	0.55	0.58	0.61
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	0.01	0.01	0.01	0.01	0.02	0.02	0.02
Wind	1.17	2.01	4.12	4.36	4.38	4.38	4.38	4.38	4.52	4.70	4.79	4.79	4.79
Total	2.38	3.07	5.83	6.42	6.57	6.59	6.60	6.28	6.62	6.82	6.97	7.00	7.04
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	0.01	0.02	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Total	0.02	0.03	0.06	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.07
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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
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)													
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
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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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
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
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 8/	0.00	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
Solar Photovoltaic	0.00	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 (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	N/A
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	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	0.12	2.3%
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.09	0.09	0.09	0.09	0.13	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	0.00	N/A
Solar Photovoltaic 5/	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	15.4%
Wind	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.1%
Total	2.21	2.21	2.21	2.22	2.22	2.25	2.28	2.31	2.31	2.32	2.32	2.36	1.2%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.8%
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	N/A
Municipal Solid Waste 3/	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	6.8%
Wood and Other Biomass 4/	0.61	0.48	0.60	0.42	0.42	0.54	0.65	0.84	0.99	1.02	1.02	1.10	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	0.00	N/A
Solar Photovoltaic 5/	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	N/A
Wind	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	3.9%
Total	7.05	6.92	7.04	6.87	6.87	6.99	7.11	7.31	7.46	7.49	7.50	7.58	4.0%
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	0.8%
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	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	0.01	12.6%
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	6.9%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	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	0.05	3.9%
Total	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	4.3%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	N/A
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	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	0.00	N/A
Electricity Generation (billion kilowatthours)													
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	N/A
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	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	0.00	N/A



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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002- 2025
Energy Consumption (quadrillion Btu)													
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	N/A
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	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	0.00	N/A
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	N/A
Solar Photovoltaic	0.00	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	0.00	N/A
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	N/A
Solar Photovoltaic	0.00	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	0.00	N/A
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	N/A
Solar Photovoltaic	0.00	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	0.00	N/A

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.
  - 6/ Combined heat and power produces electricity and other useful thermal energy.
  - 7/ Includes 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.
  - 8/ Represents own-use industrial hydroelectric power.
- Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.
- Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19
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/	0.66	0.66	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Wood and Other Biomass 4/	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
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	0.03	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.11	0.11	0.11	0.11
Total	1.91	1.92	1.95	1.95	1.96	1.96	1.97	1.98	1.98	2.01	2.01	2.01	2.01
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	2.64	3.41	3.92	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45
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/	2.96	3.03	3.71	3.72	3.73	3.73	3.74	3.75	3.75	3.75	3.75	3.75	3.75
Wood and Other Biomass 4/	0.20	0.26	1.62	2.09	2.64	2.65	2.82	2.88	2.96	2.84	2.93	2.95	2.99
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	0.01	0.01	0.01
Wind	0.01	0.07	0.15	0.18	0.18	0.18	0.21	0.24	0.25	0.33	0.33	0.33	0.33
Total	5.82	6.77	9.41	10.44	11.00	11.02	11.23	11.33	11.42	11.37	11.47	11.49	11.52
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.03	0.04	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	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Wood and Other Biomass 4/	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03
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	0.08	0.09	0.12	0.14	0.14	0.14	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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
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)													
Municipal Solid Waste	0.07	0.08	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/	1.12	1.17	1.19	1.26	1.32	1.37	1.40	1.43	1.47	1.52	1.58	1.63	1.69
Total	1.19	1.25	1.28	1.34	1.41	1.46	1.49	1.52	1.56	1.61	1.66	1.72	1.78

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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
Total	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
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 8/	0.13	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
Solar Photovoltaic	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.04	0.04
Total	0.14	0.17	0.18	0.18	0.18	0.18	0.19	0.19	0.20	0.21	0.21	0.21	0.21
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 78. Renewable Energy Generation by Fuel  
Mid-Atlantic Area Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	N/A
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	N/A
Municipal Solid Waste 3/	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.1%
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.07	0.13	0.18	0.22	0.25	0.25	0.25	9.5%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	5.0%
Total	2.01	2.01	2.01	2.01	2.01	2.05	2.10	2.15	2.19	2.22	2.22	2.22	0.6%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	1.2%
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	N/A
Municipal Solid Waste 3/	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	0.9%
Wood and Other Biomass 4/	3.00	3.01	3.00	2.99	2.96	2.97	3.12	3.42	3.59	3.66	3.69	3.60	12.2%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	N/A
Wind	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	6.9%
Total	11.54	11.55	11.54	11.52	11.49	11.51	11.66	11.96	12.13	12.20	12.23	12.14	2.6%
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	0.05	1.2%
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	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	0.07	1.1%
Wood and Other Biomass 4/	0.03	0.04	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	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	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	0.00	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	0.00	6.9%
Total	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	2.2%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
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	0.00	3.2%
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	3.0%
Electricity Generation (billion kilowatthours)													
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	0.09	0.6%
Wood and Other Biomass 4/	1.75	1.79	1.83	1.87	1.92	1.95	1.98	2.02	2.06	2.09	2.13	2.17	2.7%
Total	1.83	1.87	1.92	1.96	2.00	2.04	2.07	2.11	2.14	2.18	2.22	2.26	2.6%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
Energy Consumption (quadrillion Btu)														
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	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	0.03	0.03	2.4%
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	2.2%
Other End-Use Generators 7/														
Generating Capacity (gigawatts)														
Conventional Hydropower 8/	0.00	0.00	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	0.00	0.00	N/A
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.4%
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	3.1%
Electricity Generation (billion kilowatthours)														
Conventional Hydropower 8/	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	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	0.00	0.00	N/A
Solar Photovoltaic	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.10	0.10	15.4%
Total	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.23	0.24	0.25	0.26	0.27	0.27	1.9%
Energy Consumption (quadrillion Btu)														
Conventional Hydropower 8/	0.00	0.00	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	0.00	0.00	N/A
Solar Photovoltaic	0.00	0.00	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	0.00	0.00	0.0%

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.
  - 6/ Combined heat and power produces electricity and other useful thermal energy.
  - 7/ Includes 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.
  - 8/ Represents own-use industrial hydroelectric power.
- Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.
- Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
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/	0.31	0.33	0.34	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	0.01	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	0.04	0.04	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Total	1.04	1.06	1.12	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	2.90	2.69	2.12	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
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/	0.73	0.96	2.21	2.26	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27
Wood and Other Biomass 4/	0.33	0.37	0.44	0.50	0.74	0.77	0.80	0.82	0.86	0.90	0.91	0.94	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	0.07	0.11	0.25	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Total	4.04	4.12	5.03	5.47	5.72	5.75	5.78	5.80	5.84	5.88	5.89	5.92	5.92
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/	0.01	0.01	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
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	0.04	0.05	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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/	0.17	0.18	0.18	0.19	0.21	0.22	0.22	0.23	0.23	0.24	0.25	0.26	0.28
Total	0.18	0.19	0.19	0.21	0.22	0.23	0.23	0.24	0.25	0.26	0.27	0.28	0.29
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.08	0.08	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	1.21	1.23	1.30	1.37	1.42	1.45	1.48	1.53	1.58	1.63	1.69	1.75
Total	1.24	1.29	1.32	1.39	1.46	1.51	1.54	1.58	1.62	1.67	1.72	1.78	1.84



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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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	0.03
Total	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	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
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
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	0.07
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.14	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
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
Solar Photovoltaic	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.04	0.04
Total	0.14	0.18	0.18	0.18	0.19	0.19	0.19	0.20	0.21	0.21	0.21	0.21	0.21
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 79. Renewable Energy Generation by Fuel  
Mid-America Interconnected Network

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	N/A
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	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	0.35	0.2%
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.07	0.07	0.07	0.07	0.13	15.4%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.09	0.09	0.09	0.09	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	5.3%
Total	1.13	1.13	1.13	1.13	1.22	1.22	1.22	1.24	1.24	1.24	1.24	1.30	0.9%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	-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	0.00	N/A
Municipal Solid Waste 3/	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	3.8%
Wood and Other Biomass 4/	0.95	0.95	0.96	0.96	1.02	1.08	1.12	1.15	1.20	1.23	1.23	1.29	5.6%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.29	0.29	0.29	0.29	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	6.5%
Total	5.93	5.93	5.94	5.94	6.16	6.22	6.26	6.29	6.34	6.37	6.37	6.43	2.0%
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	0.02	-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	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	0.03	3.7%
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	6.1%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	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	0.00	6.5%
Total	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	2.0%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
Wood and Other Biomass 4/	0.29	0.29	0.30	0.31	0.32	0.32	0.33	0.34	0.34	0.35	0.36	0.37	3.2%
Total	0.30	0.30	0.31	0.32	0.33	0.33	0.34	0.35	0.35	0.36	0.37	0.38	3.0%
Electricity Generation (billion kilowatthours)													
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	0.09	0.6%
Wood and Other Biomass 4/	1.81	1.85	1.89	1.94	1.98	2.02	2.06	2.09	2.13	2.17	2.21	2.25	2.7%
Total	1.90	1.94	1.98	2.03	2.08	2.11	2.15	2.18	2.22	2.26	2.30	2.34	2.6%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002- 2025
Energy Consumption (quadrillion Btu)													
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	0.0%
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	0.03	2.4%
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	2.2%
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	15.4%
Total	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.10	3.1%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.10	15.4%
Total	0.22	0.22	0.22	0.22	0.22	0.22	0.23	0.24	0.25	0.26	0.27	0.28	1.9%
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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	0.00	N/A
Solar Photovoltaic	0.00	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	0.00	0.0%

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.
  - 6/ Combined heat and power produces electricity and other useful thermal energy.
  - 7/ Includes 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.
  - 8/ Represents own-use industrial hydroelectric power.
- Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.
- Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18
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/	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Wood and Other Biomass 4/	0.13	0.16	0.16	0.16	0.16	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
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	0.64	0.85	1.17	1.19	1.22	1.35	1.73	1.77	1.80	1.95	1.95	1.95	1.95
Total	4.07	4.32	4.64	4.66	4.69	4.87	5.25	5.29	5.33	5.47	5.47	5.47	5.47
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	8.44	10.00	13.05	14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81
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/	0.98	1.03	0.82	0.82	0.82	0.82	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Wood and Other Biomass 4/	0.23	0.29	0.90	0.93	0.96	1.20	1.28	1.28	1.28	1.29	1.29	1.29	1.29
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	1.39	1.96	2.90	3.22	3.32	3.70	4.84	5.28	5.41	5.82	5.93	5.93	5.93
Total	11.04	13.28	17.66	19.79	19.92	20.54	21.78	22.22	22.35	22.77	22.87	22.87	22.87
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.09	0.10	0.13	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Geothermal 2/	0.00	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/	0.01	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 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	0.02	0.03	0.03	0.03	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.06
Total	0.12	0.15	0.18	0.21	0.21	0.21	0.23	0.23	0.23	0.24	0.24	0.24	0.24
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.13	0.13	0.14	0.15	0.15	0.16	0.16	0.17	0.17	0.18	0.19	0.19
Total	0.13	0.13	0.14	0.14	0.15	0.16	0.16	0.17	0.17	0.18	0.19	0.19	0.20
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.08	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/	1.23	1.28	1.30	1.38	1.45	1.50	1.54	1.57	1.61	1.67	1.73	1.79	1.86
Total	1.31	1.37	1.40	1.47	1.55	1.60	1.63	1.67	1.71	1.77	1.82	1.89	1.95

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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	0.03	0.03	0.03
Total	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
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	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
Solar Photovoltaic	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	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.15	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
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
Solar Photovoltaic	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.04	0.04
Total	0.15	0.19	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.23
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 80. Renewable Energy Generation by Fuel  
Mid-Continent Area Power Pool

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18	N/A
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	N/A
Municipal Solid Waste 3/	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.1%
Wood and Other Biomass 4/	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	1.1%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	1.98	2.02	2.07	2.07	2.07	2.07	2.09	2.09	2.09	2.09	2.09	2.09	4.0%
Total	5.50	5.54	5.59	5.59	5.59	5.59	5.61	5.61	5.61	5.61	5.61	5.61	1.1%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81	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	0.00	N/A
Municipal Solid Waste 3/	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	-0.8%
Wood and Other Biomass 4/	1.28	1.28	1.28	1.28	1.28	1.28	1.25	1.24	1.24	1.24	1.24	1.22	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	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	0.00	N/A
Wind	6.05	6.20	6.36	6.36	6.36	6.36	6.44	6.44	6.44	6.44	6.44	6.44	5.3%
Total	23.00	23.15	23.31	23.31	23.30	23.30	23.36	23.34	23.34	23.34	23.34	23.32	2.5%
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	0.15	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	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	0.01	-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	0.01	1.2%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	5.3%
Total	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	2.2%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
Wood and Other Biomass 4/	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.26	3.2%
Total	0.21	0.21	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.27	3.0%
Electricity Generation (billion kilowatthours)													
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	0.10	0.6%
Wood and Other Biomass 4/	1.91	1.96	2.00	2.05	2.10	2.14	2.18	2.21	2.25	2.30	2.34	2.38	2.7%
Total	2.01	2.05	2.10	2.15	2.20	2.23	2.27	2.31	2.35	2.39	2.43	2.48	2.6%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
Energy Consumption (quadrillion Btu)														
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	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	0.03	0.03	2.4%
Total	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	2.2%
Other End-Use Generators 7/														
Generating Capacity (gigawatts)														
Conventional Hydropower 8/	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	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	0.00	0.00	N/A
Solar Photovoltaic	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	15.4%
Total	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.07	0.07	3.1%
Electricity Generation (billion kilowatthours)														
Conventional Hydropower 8/	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	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	0.00	0.00	N/A
Solar Photovoltaic	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.11	15.4%
Total	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.25	0.26	0.27	0.29	0.30	0.30	1.9%
Energy Consumption (quadrillion Btu)														
Conventional Hydropower 8/	0.00	0.00	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	0.00	0.00	N/A
Solar Photovoltaic	0.00	0.00	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	0.00	0.00	0.0%



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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.

6/ Combined heat and power produces electricity and other useful thermal energy.

7/ Includes 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.

8/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.

Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	4.30	4.44	4.52	4.59	4.66	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80
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/	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
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	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Total	4.67	4.82	4.89	4.97	5.04	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.18
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	23.00	25.24	25.16	25.51	25.85	26.55	26.81	26.81	26.81	26.81	26.81	26.81	26.81
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/	1.43	1.48	1.79	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
Wood and Other Biomass 4/	0.50	0.47	0.68	1.14	1.58	1.61	1.52	1.46	1.47	1.54	1.47	1.58	1.42
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	0.09	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Total	24.95	27.28	27.75	28.57	29.36	30.08	30.25	30.19	30.19	30.27	30.20	30.31	30.15
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.24	0.26	0.26	0.26	0.27	0.27	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 3/	0.03	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	0.01	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	0.00	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	0.26	0.29	0.29	0.30	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.02	0.02	0.02
Total	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.10	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Wood and Other Biomass 4/	1.55	1.62	1.65	1.74	1.84	1.90	1.95	1.99	2.04	2.11	2.19	2.26	2.35
Total	1.66	1.73	1.77	1.87	1.96	2.02	2.07	2.11	2.16	2.23	2.31	2.39	2.47

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Total	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 8/	0.19	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
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
Solar Photovoltaic	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.05	0.05	0.05
Total	0.19	0.24	0.24	0.25	0.25	0.25	0.26	0.27	0.28	0.28	0.29	0.29	0.29
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 81. Renewable Energy Generation by Fuel  
Northeast Power Coordinating Council / New York

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	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	0.00	N/A
Municipal Solid Waste 3/	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.1%
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.07	0.07	0.07	0.07	0.07	2.4%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	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	0.05	N/A
Total	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.21	5.21	5.21	5.21	5.21	0.3%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	26.81	26.81	26.81	26.81	26.81	26.81	26.81	26.81	26.81	26.81	26.81	26.81	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	0.00	N/A
Municipal Solid Waste 3/	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	0.9%
Wood and Other Biomass 4/	1.42	1.42	1.43	1.43	1.42	1.42	1.42	1.54	1.58	1.60	1.59	1.58	5.4%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	1.4%
Total	30.15	30.15	30.15	30.15	30.15	30.15	30.15	30.27	30.30	30.32	30.32	30.31	0.5%
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	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	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	0.03	0.5%
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	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	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	0.00	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	0.00	1.4%
Total	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.5%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
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	0.02	3.2%
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	3.0%
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.6%
Wood and Other Biomass 4/	2.42	2.48	2.53	2.60	2.66	2.70	2.75	2.80	2.85	2.91	2.96	3.02	2.7%
Total	2.54	2.60	2.66	2.72	2.78	2.83	2.87	2.92	2.97	3.03	3.08	3.14	2.6%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Energy Consumption (quadrillion Btu)													
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	0.0%
Wood and Other Biomass 4/	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	2.4%
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	2.2%
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.00	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	0.00	N/A
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.4%
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	3.1%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	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	0.00	N/A
Solar Photovoltaic	0.05	0.05	0.05	0.05	0.06	0.06	0.07	0.08	0.10	0.11	0.12	0.14	15.4%
Total	0.29	0.29	0.29	0.29	0.30	0.30	0.31	0.32	0.33	0.35	0.36	0.38	1.9%
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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	0.00	N/A
Solar Photovoltaic	0.00	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	0.00	0.0%

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.

6/ Combined heat and power produces electricity and other useful thermal energy.

7/ Includes 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.

8/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.

Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72
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/	0.64	0.64	0.65	0.65	0.66	0.66	0.66	0.67	0.67	0.69	0.69	0.69	0.69
Wood and Other Biomass 4/	0.42	0.42	0.44	0.45	0.46	0.47	0.49	0.52	0.54	0.54	0.54	0.54	0.54
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	0.07	0.07	0.07	0.07	0.10	0.13	0.13	0.23	0.23	0.25
Total	2.80	2.80	2.83	2.89	2.91	2.92	2.95	3.01	3.07	3.10	3.20	3.20	3.22
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	4.47	4.82	4.44	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04
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 3/	4.19	4.05	4.79	4.81	4.83	4.86	4.89	4.91	4.94	5.13	5.13	5.13	5.13
Wood and Other Biomass 4/	2.49	2.26	2.50	2.57	2.63	2.69	2.83	3.00	3.17	3.21	3.21	3.21	3.21
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	0.12	0.20	0.20	0.20	0.29	0.41	0.44	0.79	0.79	0.86
Total	11.17	11.13	11.76	12.54	12.70	12.79	12.95	13.24	13.56	13.81	14.17	14.17	14.24
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	0.05	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/	0.04	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 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	0.01	0.01	0.01
Total	0.14	0.15	0.15	0.16	0.16	0.16	0.16	0.17	0.17	0.18	0.18	0.18	0.18
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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/	0.45	0.46	0.47	0.50	0.53	0.56	0.57	0.59	0.61	0.63	0.66	0.68	0.71
Total	0.47	0.49	0.50	0.53	0.56	0.59	0.60	0.62	0.64	0.66	0.69	0.71	0.74
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.51	0.53	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/	7.76	8.12	8.24	8.72	9.19	9.51	9.73	9.94	10.21	10.57	10.93	11.32	11.74
Total	8.28	8.65	8.84	9.33	9.79	10.12	10.34	10.54	10.82	11.17	11.54	11.93	12.34

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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/	0.11	0.12	0.12	0.13	0.14	0.14	0.14	0.15	0.15	0.15	0.16	0.16	0.17
Total	0.12	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.16	0.17	0.17	0.18	0.18
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	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
Solar Photovoltaic	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.05	0.05	0.05
Total	0.12	0.13	0.13	0.13	0.13	0.14	0.14	0.15	0.16	0.17	0.17	0.17	0.17
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.93	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19
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
Solar Photovoltaic	0.02	0.03	0.03	0.05	0.06	0.09	0.12	0.15	0.19	0.24	0.24	0.25	0.25
Total	0.94	1.21	1.22	1.23	1.25	1.27	1.30	1.34	1.38	1.42	1.43	1.43	1.44
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	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
Solar Photovoltaic	0.00	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 82. Renewable Energy Generation by Fuel  
Northeast Power Coordinating Council / New England

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	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	0.00	N/A
Municipal Solid Waste 3/	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.4%
Wood and Other Biomass 4/	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	1.1%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.25	0.30	0.34	0.43	0.59	0.78	0.78	0.91	1.05	1.27	1.86	1.86	23.7%
Total	3.22	3.26	3.30	3.39	3.55	3.74	3.74	3.87	4.02	4.23	4.82	4.82	2.4%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	0.2%
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	N/A
Municipal Solid Waste 3/	5.13	5.13	5.13	5.13	5.13	5.13	5.13	5.13	5.13	5.13	5.13	5.13	1.0%
Wood and Other Biomass 4/	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	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	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	0.00	N/A
Wind	0.86	1.02	1.18	1.51	2.07	2.79	2.79	3.25	3.79	4.60	6.77	6.77	32.8%
Total	14.24	14.40	14.56	14.89	15.45	16.16	16.16	16.63	17.16	17.98	20.15	20.15	2.6%
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	0.05	0.2%
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	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	0.07	1.0%
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	0.05	0.9%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.07	0.07	32.8%
Total	0.18	0.18	0.18	0.19	0.19	0.20	0.20	0.20	0.21	0.22	0.24	0.24	2.2%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
Wood and Other Biomass 4/	0.74	0.76	0.78	0.80	0.82	0.84	0.86	0.87	0.89	0.91	0.93	0.95	3.2%
Total	0.77	0.79	0.81	0.83	0.85	0.87	0.89	0.90	0.92	0.94	0.96	0.98	3.0%
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.6%
Wood and Other Biomass 4/	12.10	12.40	12.67	12.98	13.29	13.52	13.77	14.00	14.25	14.53	14.79	15.08	2.7%
Total	12.71	13.00	13.28	13.59	13.89	14.13	14.37	14.61	14.86	15.13	15.39	15.68	2.6%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
Energy Consumption (quadrillion Btu)														
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	0.0%
Wood and Other Biomass 4/	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.21	0.21	0.21	2.4%
Total	0.19	0.19	0.19	0.20	0.20	0.20	0.21	0.21	0.21	0.22	0.22	0.22	0.22	2.2%
Other End-Use Generators 7/														
Generating Capacity (gigawatts)														
Conventional Hydropower 8/	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	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	0.00	0.00	N/A
Solar Photovoltaic	0.05	0.05	0.05	0.05	0.06	0.06	0.07	0.08	0.09	0.10	0.12	0.13	0.13	15.4%
Total	0.17	0.17	0.17	0.17	0.18	0.18	0.19	0.20	0.21	0.22	0.24	0.25	0.25	3.1%
Electricity Generation (billion kilowatthours)														
Conventional Hydropower 8/	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	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	0.00	0.00	N/A
Solar Photovoltaic	0.26	0.26	0.27	0.27	0.29	0.32	0.36	0.42	0.48	0.55	0.62	0.70	0.70	15.4%
Total	1.44	1.45	1.45	1.46	1.48	1.50	1.55	1.60	1.67	1.73	1.80	1.88	1.88	1.9%
Energy Consumption (quadrillion Btu)														
Conventional Hydropower 8/	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	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	0.00	0.00	N/A
Solar Photovoltaic	0.00	0.00	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	0.01	0.01	0.0%

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.
  - 6/ Combined heat and power produces electricity and other useful thermal energy.
  - 7/ Includes 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.
  - 8/ Represents own-use industrial hydroelectric power.
- Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.
- Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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/	0.52	0.52	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.08	0.08	0.08
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	0.59	0.59	0.59	0.59	0.59	0.59	0.61	0.61	0.61	0.64	0.67	0.67	0.67
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	0.15	0.18	0.19	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
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/	3.02	3.17	3.50	3.50	3.50	3.50	3.64	3.64	3.64	3.64	3.64	3.64	3.64
Wood and Other Biomass 4/	0.42	0.48	0.75	0.59	0.75	0.79	0.85	0.91	0.90	1.04	1.22	1.33	1.37
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	3.59	3.83	4.44	4.30	4.47	4.51	4.71	4.77	4.76	4.90	5.08	5.19	5.23
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/	0.04	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/	0.00	0.00	0.01	0.00	0.00	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	0.04	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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/	0.23	0.23	0.24	0.25	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.36
Total	0.24	0.25	0.25	0.27	0.28	0.30	0.30	0.31	0.32	0.33	0.35	0.36	0.37
Electricity Generation (billion kilowatthours)													
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
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 83. Renewable Energy Generation by Fuel  
 Florida Reliability Coordinating Council

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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
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
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	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
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
Solar Photovoltaic	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	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 83. Renewable Energy Generation by Fuel  
 Florida Reliability Coordinating Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
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	0.05	N/A
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	N/A
Municipal Solid Waste 3/	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.2%
Wood and Other Biomass 4/	0.08	0.08	0.08	0.13	0.24	0.29	0.29	0.29	0.29	0.29	0.33	0.36	15.0%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	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	0.00	N/A
Total	0.67	0.67	0.67	0.72	0.83	0.88	0.88	0.88	0.88	0.88	0.92	0.95	2.1%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.7%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	0.6%
Wood and Other Biomass 4/	1.37	1.40	1.40	1.53	2.03	2.46	2.68	2.75	2.73	2.73	2.81	2.92	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	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	0.00	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	0.00	N/A
Total	5.23	5.26	5.26	5.39	5.89	6.32	6.54	6.61	6.59	6.59	6.67	6.78	2.5%
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	0.7%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.05	0.4%
Wood and Other Biomass 4/	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	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	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	0.00	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	0.00	N/A
Total	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	2.0%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
Wood and Other Biomass 4/	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	3.2%
Total	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.45	0.46	0.47	0.48	0.49	3.0%
Electricity Generation (billion kilowatthours)													
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	N/A
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	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	0.00	N/A

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Energy Consumption (quadrillion Btu)													
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	N/A
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	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	0.00	N/A
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.05	0.05	0.06	0.07	15.4%
Total	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.11	0.11	0.12	0.13	3.1%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	N/A
Solar Photovoltaic	0.00	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	0.00	N/A
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	N/A
Solar Photovoltaic	0.00	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	0.00	N/A

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.
  - 6/ Combined heat and power produces electricity and other useful thermal energy.
  - 7/ Includes 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.
  - 8/ Represents own-use industrial hydroelectric power.
- Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.
- Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.



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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
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/	0.20	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Wood and Other Biomass 4/	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
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	0.15	0.19	0.54
Total	11.77	11.79	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.95	11.99	12.34
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	25.90	28.00	28.86	32.79	32.79	32.79	32.79	32.79	32.79	32.79	32.79	32.79	32.79
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/	1.01	1.13	1.48	1.52	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53
Wood and Other Biomass 4/	0.57	0.86	2.65	2.68	3.62	3.80	3.90	4.29	4.21	4.36	4.16	3.96	4.23
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.55	0.67	1.93
Total	27.47	29.99	33.00	36.99	37.94	38.12	38.22	38.61	38.53	38.68	39.02	38.95	40.47
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.27	0.29	0.30	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
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	0.02	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/	0.03	0.03	0.06	0.06	0.07	0.07	0.07	0.08	0.07	0.08	0.07	0.07	0.08
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	0.01	0.01	0.02
Total	0.31	0.34	0.38	0.42	0.43	0.43	0.43	0.43	0.43	0.43	0.44	0.44	0.45
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
Municipal Solid Waste	0.10	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Wood and Other Biomass 4/	1.90	1.95	1.99	2.13	2.27	2.36	2.43	2.49	2.57	2.68	2.79	2.90	3.02
Total	2.01	2.08	2.11	2.26	2.39	2.49	2.55	2.62	2.70	2.80	2.91	3.03	3.15
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.59	0.61	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Wood and Other Biomass 4/	8.94	9.36	9.49	10.05	10.59	10.96	11.21	11.45	11.77	12.18	12.60	13.05	13.52
Total	9.53	9.97	10.19	10.75	11.28	11.65	11.91	12.15	12.47	12.87	13.30	13.75	14.22

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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/	0.12	0.14	0.14	0.15	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.19	0.19
Total	0.14	0.16	0.16	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.20	0.20	0.21
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
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
Solar Photovoltaic	0.01	0.02	0.03	0.04	0.05	0.07	0.10	0.12	0.15	0.19	0.20	0.20	0.20
Total	0.53	0.53	0.54	0.55	0.56	0.58	0.61	0.63	0.67	0.70	0.71	0.71	0.72
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	1.07	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37
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
Solar Photovoltaic	0.02	0.03	0.04	0.05	0.07	0.10	0.14	0.17	0.22	0.27	0.28	0.28	0.29
Total	1.09	1.40	1.41	1.42	1.44	1.47	1.50	1.54	1.58	1.64	1.65	1.65	1.66
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	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
Solar Photovoltaic	0.00	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 84. Renewable Energy Generation by Fuel  
Southeastern Electric Reliability Council

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	N/A
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	N/A
Municipal Solid Waste 3/	0.22	0.22	0.22	0.22	0.22	0.22	0.25	0.25	0.25	0.25	0.25	0.25	0.7%
Wood and Other Biomass 4/	0.33	0.33	0.33	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.51	0.56	2.4%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.74	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	30.3%
Total	12.54	12.67	12.67	12.82	12.82	12.82	12.85	12.85	12.85	12.85	12.88	12.94	0.4%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	32.79	32.79	32.79	32.79	32.79	32.79	32.79	32.79	32.79	32.79	32.79	32.79	0.7%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste 3/	1.53	1.53	1.53	1.53	1.53	1.53	1.74	1.74	1.74	1.74	1.74	1.74	1.9%
Wood and Other Biomass 4/	4.27	4.62	4.64	5.04	5.07	5.09	4.89	4.76	4.70	4.56	4.41	4.17	7.1%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	2.65	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	N/A
Total	41.24	42.02	42.04	42.44	42.48	42.49	42.51	42.38	42.32	42.18	42.03	41.79	1.5%
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.7%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.02	1.7%
Wood and Other Biomass 4/	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	3.5%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	N/A
Total	0.46	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.46	1.4%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
Municipal Solid Waste	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.0%
Wood and Other Biomass 4/	3.13	3.22	3.30	3.39	3.48	3.55	3.63	3.70	3.77	3.85	3.93	4.02	3.2%
Total	3.26	3.35	3.43	3.52	3.61	3.68	3.75	3.82	3.90	3.98	4.06	4.14	3.0%
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.6%
Wood and Other Biomass 4/	13.94	14.28	14.60	14.96	15.31	15.58	15.86	16.14	16.42	16.74	17.04	17.37	2.7%
Total	14.64	14.98	15.30	15.66	16.01	16.28	16.56	16.83	17.12	17.43	17.74	18.07	2.6%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
Energy Consumption (quadrillion Btu)														
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	0.0%
Wood and Other Biomass 4/	0.20	0.20	0.21	0.21	0.22	0.22	0.22	0.23	0.23	0.24	0.24	0.24	0.24	2.4%
Total	0.21	0.22	0.22	0.23	0.23	0.24	0.24	0.24	0.25	0.25	0.25	0.26	2.2%	
Other End-Use Generators 7/														
Generating Capacity (gigawatts)														
Conventional Hydropower 8/	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	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	0.00	0.00	N/A
Solar Photovoltaic	0.21	0.21	0.22	0.22	0.24	0.26	0.29	0.34	0.39	0.44	0.50	0.56	0.56	15.4%
Total	0.72	0.72	0.73	0.73	0.75	0.77	0.80	0.85	0.90	0.95	1.01	1.07	1.07	3.1%
Electricity Generation (billion kilowatthours)														
Conventional Hydropower 8/	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	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	0.00	0.00	N/A
Solar Photovoltaic	0.30	0.30	0.31	0.31	0.34	0.37	0.42	0.48	0.55	0.63	0.71	0.80	0.80	15.4%
Total	1.66	1.67	1.67	1.68	1.70	1.73	1.78	1.85	1.92	2.00	2.08	2.17	2.17	1.9%
Energy Consumption (quadrillion Btu)														
Conventional Hydropower 8/	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	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	0.00	0.00	N/A
Solar Photovoltaic	0.00	0.00	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	0.01	0.01	0.0%

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.

6/ Combined heat and power produces electricity and other useful thermal energy.

7/ Includes 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.

8/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.

Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 85. Renewable Energy Generation by Fuel  
Southwest Power Pool

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47
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	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Wind	0.19	0.20	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Total	2.67	2.68	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.87	2.87	2.87	2.87
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	5.07	5.92	4.42	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02
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/	0.08	0.16	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/	0.20	0.26	0.49	0.40	0.46	0.39	0.40	0.54	0.40	0.39	0.37	0.39	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	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04
Wind	0.06	0.68	1.08	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23
Total	5.42	7.02	6.06	6.73	6.79	6.72	6.73	6.88	6.74	6.74	6.72	6.74	6.77
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.05	0.06	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/	0.00	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	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	0.05	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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/	0.37	0.38	0.39	0.41	0.44	0.46	0.47	0.48	0.50	0.52	0.54	0.56	0.59
Total	0.39	0.40	0.41	0.44	0.46	0.48	0.50	0.51	0.52	0.54	0.56	0.59	0.61
Electricity Generation (billion kilowatthours)													
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	0.02	0.02	0.02
Total	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02

Table 85. Renewable Energy Generation by Fuel  
Southwest Power Pool

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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
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
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
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
Solar Photovoltaic	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.04	0.04
Total	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.13	0.14	0.14	0.14	0.14
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 85. Renewable Energy Generation by Fuel  
Southwest Power Pool

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	N/A
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	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	0.01	2.5%
Wood and Other Biomass 4/	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.04	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	0.00	N/A
Solar Photovoltaic 5/	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.05	N/A
Wind	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	2.8%
Total	2.88	2.88	2.88	2.89	2.89	2.89	2.93	2.94	2.94	2.94	2.94	2.95	0.4%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	-0.7%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	-2.7%
Wood and Other Biomass 4/	0.40	0.54	0.69	0.74	0.75	0.75	0.72	0.76	0.96	0.93	0.93	0.71	4.4%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic 5/	0.05	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	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	2.6%
Total	6.79	6.93	7.09	7.15	7.16	7.17	7.15	7.19	7.40	7.38	7.38	7.16	0.1%
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	0.05	-0.7%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
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	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	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	0.00	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	0.01	2.6%
Total	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.07	0.07	0.07	0.08	0.3%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
Wood and Other Biomass 4/	0.61	0.62	0.64	0.66	0.68	0.69	0.70	0.72	0.73	0.75	0.76	0.78	3.2%
Total	0.63	0.65	0.66	0.68	0.70	0.71	0.73	0.74	0.76	0.77	0.79	0.80	3.0%
Electricity Generation (billion kilowatthours)													
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	0.6%
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	2.7%
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	2.6%



Table 85. Renewable Energy Generation by Fuel  
Southwest Power Pool

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Energy Consumption (quadrillion Btu)													
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	0.0%
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	0.00	2.4%
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	2.2%
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	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	0.00	N/A
Solar Photovoltaic	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.10	0.11	15.4%
Total	0.14	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.18	0.20	0.21	3.1%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.00	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	0.00	N/A
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.4%
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	1.9%
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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	0.00	N/A
Solar Photovoltaic	0.00	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	0.00	0.0%

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.
  - 6/ Combined heat and power produces electricity and other useful thermal energy.
  - 7/ Includes 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.
  - 8/ Represents own-use industrial hydroelectric power.
- Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.
- Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	35.69	35.69	35.69	35.69	35.69	35.69	35.69	35.69	35.69	35.67	35.67	35.67	35.67
Geothermal 2/	0.27	0.27	0.27	0.27	0.27	0.27	0.32	0.45	0.57	0.71	0.85	0.96	1.07
Municipal Solid Waste 3/	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.12	0.12	0.12	0.12	0.12	0.12
Wood and Other Biomass 4/	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	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	0.01	0.01	0.01	0.01
Solar Photovoltaic 5/	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.04
Wind	0.24	0.36	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.59	0.61	0.66	0.73
Total	36.46	36.59	36.70	36.70	36.71	36.71	36.76	36.91	37.04	37.31	37.47	37.64	37.82
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	96.38	128.63	134.00	152.18	152.18	152.18	152.18	152.18	152.18	152.06	152.00	152.00	152.00
Geothermal 2/	1.35	1.38	1.97	1.97	1.97	1.97	2.26	3.34	4.33	5.40	6.62	7.55	8.46
Municipal Solid Waste 3/	0.36	0.45	0.72	0.72	0.72	0.72	0.72	0.90	0.90	0.90	0.90	0.90	0.90
Wood and Other Biomass 4/	0.60	0.55	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.92	0.96	1.00	1.00
Solar Thermal	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
Solar Photovoltaic 5/	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.03	0.04	0.05	0.07	0.08	0.09
Wind	0.36	1.12	1.50	1.60	1.60	1.60	1.60	1.60	1.60	2.02	2.11	2.30	2.54
Total	99.06	132.12	138.99	157.28	157.29	157.29	157.59	158.86	159.86	161.37	162.67	163.85	165.01
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.99	1.32	1.38	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
Geothermal 2/	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.09	0.12	0.15	0.20	0.23	0.26
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/	0.02	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 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	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
Total	1.05	1.39	1.46	1.65	1.65	1.65	1.66	1.69	1.73	1.77	1.81	1.84	1.88
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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/	0.30	0.31	0.32	0.34	0.36	0.38	0.39	0.40	0.41	0.43	0.45	0.47	0.48
Total	0.32	0.33	0.34	0.36	0.38	0.40	0.41	0.42	0.43	0.45	0.47	0.49	0.50
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	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
Wood and Other Biomass 4/	0.47	0.49	0.49	0.52	0.55	0.57	0.58	0.60	0.61	0.63	0.66	0.68	0.70
Total	0.50	0.52	0.53	0.56	0.59	0.61	0.62	0.63	0.65	0.67	0.69	0.72	0.74

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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
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
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	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
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
Solar Photovoltaic	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	0.08	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.11	0.11	0.11	0.11	0.11
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.06	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
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.06	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 86. Renewable Energy Generation by Fuel  
Western Electricity Coordinating Council / Northwest Power Pool Area

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	35.67	35.67	35.67	35.67	35.67	35.67	35.67	35.67	35.67	35.67	35.67	35.67	0.0%
Geothermal 2/	1.14	1.22	1.27	1.39	1.44	1.54	1.61	1.66	1.71	1.71	1.78	1.91	8.8%
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	0.12	1.0%
Wood and Other Biomass 4/	0.20	0.20	0.20	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.29	2.5%
Solar Thermal	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	15.9%
Solar Photovoltaic 5/	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.09	0.09	44.3%
Wind	0.73	0.78	0.78	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.93	1.28	5.7%
Total	37.91	38.04	38.10	38.34	38.40	38.50	38.58	38.64	38.69	38.70	38.83	39.39	0.3%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	152.00	152.00	152.00	152.00	152.00	152.00	152.00	152.00	152.00	152.00	152.00	152.00	0.7%
Geothermal 2/	9.12	9.80	10.23	11.17	11.59	12.43	12.99	13.42	13.85	13.89	14.44	15.51	11.1%
Municipal Solid Waste 3/	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	3.1%
Wood and Other Biomass 4/	1.00	1.00	1.00	1.15	1.19	1.24	1.24	1.24	1.24	1.24	1.24	1.51	4.5%
Solar Thermal	0.03	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/	0.10	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	2.54	2.71	2.71	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.25	4.56	6.3%
Total	165.69	166.55	167.00	168.43	168.89	169.79	170.37	170.82	171.26	171.31	172.10	174.78	1.2%
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	0.7%
Geothermal 2/	0.28	0.30	0.32	0.35	0.36	0.39	0.41	0.43	0.44	0.44	0.46	0.50	11.5%
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	4.6%
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	1.8%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	N/A
Wind	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.05	6.3%
Total	1.90	1.92	1.94	1.97	1.99	2.02	2.04	2.05	2.07	2.07	2.09	2.15	1.9%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
Wood and Other Biomass 4/	0.50	0.52	0.53	0.54	0.56	0.57	0.58	0.59	0.60	0.62	0.63	0.64	3.2%
Total	0.52	0.54	0.55	0.56	0.58	0.59	0.60	0.61	0.62	0.64	0.65	0.66	3.0%
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.6%
Wood and Other Biomass 4/	0.73	0.74	0.76	0.78	0.80	0.81	0.83	0.84	0.85	0.87	0.89	0.90	2.7%
Total	0.76	0.78	0.80	0.81	0.83	0.85	0.86	0.88	0.89	0.91	0.92	0.94	2.6%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>Energy Consumption</b> (quadrillion Btu)													
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	0.0%
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	0.01	2.4%
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	2.2%
<b>Other End-Use Generators 7/</b>													
<b>Generating Capacity</b> (gigawatts)													
Conventional Hydropower 8/	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.09	15.4%
Total	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.14	0.14	0.15	0.16	0.17	3.1%
<b>Electricity Generation</b> (billion kilowatthours)													
Conventional Hydropower 8/	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	15.4%
Total	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	1.9%
<b>Energy Consumption</b> (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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	0.00	N/A
Solar Photovoltaic	0.00	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	0.00	0.0%

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.

6/ Combined heat and power produces electricity and other useful thermal energy.

7/ Includes 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.

8/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.

Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38
Geothermal 2/	0.34	0.34	0.35	0.35	0.42	0.44	0.46	0.48	0.50	0.53	0.55	0.57	0.62
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	0.00	0.01	0.01	0.03	0.03	0.03	0.05	0.05	0.05	0.05	0.05
Solar Thermal	0.00	0.00	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.08	0.11	0.11	0.11
Solar Photovoltaic 5/	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06
Wind	0.37	0.37	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.97
Total	6.12	6.13	6.66	6.67	6.82	6.87	6.89	6.92	6.97	7.00	7.05	7.08	7.22
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	14.22	12.75	13.14	14.93	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91
Geothermal 2/	2.53	2.46	2.88	2.90	3.28	3.53	3.71	3.89	4.06	4.24	4.42	4.59	4.96
Municipal Solid Waste 3/	0.11	0.19	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Wood and Other Biomass 4/	0.20	0.26	0.29	0.30	0.32	0.40	0.44	0.44	0.56	0.60	0.60	0.60	0.60
Solar Thermal	0.00	0.00	0.00	0.00	0.20	0.26	0.26	0.27	0.27	0.27	0.33	0.36	0.36
Solar Photovoltaic 5/	0.00	0.00	0.03	0.04	0.05	0.07	0.08	0.09	0.11	0.12	0.13	0.15	0.16
Wind	0.14	0.31	2.47	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	3.24
Total	17.21	15.97	19.04	21.33	21.92	22.34	22.57	22.76	23.07	23.31	23.56	23.77	24.46
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.15	0.13	0.14	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Geothermal 2/	0.06	0.06	0.06	0.06	0.08	0.08	0.09	0.09	0.10	0.11	0.11	0.12	0.13
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	0.00	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Total	0.21	0.20	0.23	0.25	0.26	0.28	0.28	0.29	0.30	0.30	0.31	0.31	0.33
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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
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)													
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
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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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
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
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 8/	0.00	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
Solar Photovoltaic	0.00	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 (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	0.0%
Geothermal 2/	0.64	0.66	0.66	0.66	0.66	0.71	0.76	0.76	0.76	0.76	0.81	0.86	4.1%
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	N/A
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	0.05	N/A
Solar Thermal	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	N/A
Solar Photovoltaic 5/	0.06	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09	11.4%
Wind	0.99	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.10	1.22	5.3%
Total	7.27	7.31	7.32	7.32	7.32	7.38	7.43	7.43	7.44	7.44	7.58	7.75	1.0%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	14.91	0.7%
Geothermal 2/	5.14	5.33	5.37	5.37	5.37	5.77	6.16	6.18	6.20	6.20	6.60	6.99	4.6%
Municipal Solid Waste 3/	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.9%
Wood and Other Biomass 4/	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	3.7%
Solar Thermal	0.36	0.37	0.37	0.37	0.38	0.38	0.38	0.39	0.39	0.39	0.40	0.40	N/A
Solar Photovoltaic 5/	0.16	0.17	0.18	0.19	0.19	0.20	0.21	0.22	0.22	0.23	0.24	0.24	N/A
Wind	3.31	3.38	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.71	4.16	11.9%
Total	24.71	24.98	25.05	25.06	25.07	25.48	25.88	25.92	25.95	25.96	26.68	27.53	2.4%
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	0.15	0.7%
Geothermal 2/	0.13	0.14	0.14	0.14	0.14	0.15	0.16	0.17	0.17	0.17	0.18	0.19	5.1%
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	6.4%
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	4.4%
Solar Thermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	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	0.04	11.9%
Total	0.34	0.34	0.34	0.34	0.34	0.36	0.37	0.37	0.37	0.37	0.38	0.40	3.1%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	N/A
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	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	0.00	N/A
Electricity Generation (billion kilowatthours)													
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	N/A
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	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	0.00	N/A

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Energy Consumption (quadrillion Btu)													
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	N/A
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	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	0.00	N/A
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	N/A
Solar Photovoltaic	0.00	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	0.00	N/A
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	N/A
Solar Photovoltaic	0.00	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	0.00	N/A
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
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	N/A
Solar Photovoltaic	0.00	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	0.00	N/A

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.

6/ Combined heat and power produces electricity and other useful thermal energy.

7/ Includes 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.

8/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.

Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	10.37	10.39	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41
Geothermal 2/	2.27	2.27	2.27	2.18	2.21	2.44	2.50	2.58	2.68	2.78	2.87	2.96	3.05
Municipal Solid Waste 3/	0.34	0.35	0.38	0.40	0.41	0.43	0.54	0.57	0.58	0.58	0.58	0.58	0.58
Wood and Other Biomass 4/	0.42	0.42	0.42	0.43	0.44	0.46	0.49	0.51	0.51	0.51	0.51	0.51	0.51
Solar Thermal	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.35
Solar Photovoltaic 5/	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.06	0.06	0.07
Wind	1.59	1.70	1.89	1.91	1.95	2.04	2.13	2.23	2.23	2.23	2.30	2.41	2.52
Total	15.33	15.47	15.72	15.69	15.77	16.16	16.45	16.69	16.80	16.90	17.08	17.28	17.48
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	24.44	29.19	35.74	40.61	40.61	40.61	40.61	40.61	40.61	40.61	40.61	40.61	40.61
Geothermal 2/	9.65	9.45	8.89	8.71	8.90	10.36	11.18	11.84	12.74	13.53	14.27	14.98	15.69
Municipal Solid Waste 3/	1.89	2.05	2.67	2.83	2.92	3.06	3.93	4.15	4.21	4.21	4.22	4.22	4.22
Wood and Other Biomass 4/	2.23	2.65	2.45	2.50	2.56	2.69	2.84	2.99	3.03	3.03	3.03	3.03	3.03
Solar Thermal	0.54	0.54	0.51	0.52	0.52	0.53	0.53	0.54	0.54	0.55	0.55	0.56	0.56
Solar Photovoltaic 5/	0.00	0.00	0.04	0.05	0.06	0.08	0.09	0.11	0.12	0.13	0.14	0.15	0.16
Wind	3.50	4.14	4.54	4.77	4.88	5.17	5.50	5.83	5.91	5.91	6.19	6.57	6.95
Total	42.25	48.03	54.85	59.98	60.45	62.49	64.68	66.08	67.17	67.97	69.01	70.11	71.23
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.25	0.30	0.37	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
Geothermal 2/	0.19	0.19	0.19	0.19	0.20	0.25	0.27	0.29	0.32	0.35	0.37	0.39	0.41
Municipal Solid Waste 3/	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.06	0.06	0.06	0.06	0.06	0.06
Wood and Other Biomass 4/	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
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	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.07	0.07
Total	0.55	0.61	0.69	0.75	0.76	0.81	0.85	0.88	0.91	0.94	0.96	0.99	1.02
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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/	0.14	0.14	0.15	0.16	0.17	0.18	0.18	0.18	0.19	0.20	0.21	0.22	0.22
Total	0.15	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.20	0.21	0.22	0.22	0.23
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	0.04	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/	0.64	0.67	0.68	0.72	0.75	0.78	0.80	0.82	0.84	0.87	0.90	0.93	0.96
Total	0.68	0.71	0.73	0.77	0.80	0.83	0.85	0.87	0.89	0.92	0.95	0.98	1.01

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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
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
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	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
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	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
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	0.08	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
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
Solar Photovoltaic	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	0.08	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.00	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
Solar Photovoltaic	0.00	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 88. Renewable Energy Generation by Fuel  
Western Electricity Coordinating Council / California

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41	0.0%
Geothermal 2/	3.13	3.22	3.30	3.38	3.44	3.56	3.69	3.82	3.87	3.92	3.98	4.06	2.6%
Municipal Solid Waste 3/	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	2.2%
Wood and Other Biomass 4/	0.54	0.59	0.59	0.59	0.59	0.63	0.66	0.70	0.70	0.70	0.75	0.84	3.0%
Solar Thermal	0.35	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.4%
Solar Photovoltaic 5/	0.07	0.08	0.09	0.09	0.10	0.10	0.11	0.12	0.12	0.13	0.13	0.14	11.4%
Wind	2.68	3.02	3.14	3.14	3.16	3.39	4.91	5.82	5.82	5.82	5.82	5.82	5.5%
Total	17.76	18.25	18.45	18.53	18.63	19.03	20.71	21.80	21.86	21.92	22.03	22.22	1.6%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	40.61	40.61	40.61	40.61	40.61	40.61	40.61	40.61	40.61	40.61	40.61	40.61	1.4%
Geothermal 2/	16.34	17.09	17.75	18.35	18.88	19.87	20.90	21.99	22.44	22.89	23.39	24.05	4.1%
Municipal Solid Waste 3/	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.23	3.2%
Wood and Other Biomass 4/	3.15	3.40	3.50	3.57	3.57	3.74	3.93	4.18	4.27	4.32	4.53	4.99	2.8%
Solar Thermal	0.57	0.57	0.58	0.58	0.59	0.59	0.60	0.60	0.61	0.61	0.62	0.62	0.6%
Solar Photovoltaic 5/	0.18	0.20	0.21	0.23	0.24	0.26	0.27	0.29	0.30	0.32	0.34	0.35	23.0%
Wind	7.54	8.76	9.17	9.17	9.25	10.09	15.66	19.00	19.00	19.00	19.00	19.00	6.8%
Total	72.61	74.85	76.04	76.73	77.36	79.38	86.19	90.89	91.46	91.98	92.71	93.85	3.0%
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	1.4%
Geothermal 2/	0.43	0.45	0.47	0.49	0.51	0.54	0.57	0.60	0.62	0.63	0.65	0.67	5.5%
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	0.06	3.2%
Wood and Other Biomass 4/	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	2.3%
Solar Thermal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.6%
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	23.0%
Wind	0.08	0.09	0.09	0.09	0.10	0.10	0.16	0.20	0.20	0.20	0.20	0.20	6.8%
Total	1.04	1.08	1.11	1.13	1.15	1.19	1.28	1.35	1.36	1.38	1.39	1.42	3.7%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
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	0.0%
Wood and Other Biomass 4/	0.23	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.28	0.29	0.29	0.30	3.2%
Total	0.24	0.25	0.25	0.26	0.27	0.27	0.28	0.28	0.29	0.30	0.30	0.31	3.0%
Electricity Generation (billion kilowatthours)													
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	0.05	0.6%
Wood and Other Biomass 4/	0.99	1.02	1.04	1.07	1.09	1.11	1.13	1.15	1.17	1.19	1.21	1.24	2.7%
Total	1.04	1.07	1.09	1.12	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.29	2.6%

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025	
<b>Energy Consumption</b> (quadrillion Btu)														
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	0.0%
Wood and Other Biomass 4/	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	2.4%
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	2.2%
<b>Other End-Use Generators 7/</b>														
<b>Generating Capacity</b> (gigawatts)														
Conventional Hydropower 8/	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	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	0.00	0.00	N/A
Solar Photovoltaic	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.04	15.4%
Total	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08	3.1%
<b>Electricity Generation</b> (billion kilowatthours)														
Conventional Hydropower 8/	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	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	0.00	0.00	N/A
Solar Photovoltaic	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.06	15.4%
Total	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.15	0.15	1.9%
<b>Energy Consumption</b> (quadrillion Btu)														
Conventional Hydropower 8/	0.00	0.00	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	0.00	0.00	N/A
Solar Photovoltaic	0.00	0.00	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	0.00	0.00	0.0%



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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.

6/ Combined heat and power produces electricity and other useful thermal energy.

7/ Includes 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.

8/ Represents own-use industrial hydroelectric power.

Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.

Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.

Table 89. Renewable Energy Generation by Fuel  
United States

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	78.13	78.29	78.43	78.50	78.57	78.71	78.71	78.71	78.71	78.69	78.68	78.68	78.68
Geothermal 2/	2.88	2.89	2.90	2.81	2.90	3.15	3.28	3.51	3.76	4.01	4.27	4.49	4.73
Municipal Solid Waste 3/	3.38	3.49	3.61	3.65	3.66	3.69	3.83	3.89	3.89	3.92	3.92	3.92	3.92
Wood and Other Biomass 4/	1.79	1.83	1.85	1.87	1.89	1.99	2.04	2.09	2.14	2.20	2.24	2.24	2.24
Solar Thermal	0.33	0.33	0.33	0.34	0.42	0.42	0.42	0.43	0.43	0.43	0.46	0.46	0.47
Solar Photovoltaic 5/	0.02	0.02	0.04	0.05	0.06	0.08	0.10	0.12	0.14	0.15	0.17	0.18	0.20
Wind	4.15	4.83	6.50	6.62	6.68	6.91	7.40	7.57	7.68	8.01	8.46	8.69	9.38
Total	90.67	91.69	93.66	93.83	94.19	94.96	95.78	96.31	96.74	97.42	98.20	98.66	99.62
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	213.75	255.78	269.60	303.01	303.37	304.09	304.37	304.39	304.41	304.32	304.28	304.32	304.35
Geothermal 2/	13.74	13.36	13.82	13.66	14.23	15.95	17.23	19.14	21.21	23.25	25.38	27.21	29.21
Municipal Solid Waste 3/	17.04	17.15	23.89	24.28	24.43	24.61	25.68	26.13	26.22	26.42	26.43	26.45	26.46
Wood and Other Biomass 4/	7.04	7.16	13.67	13.82	17.06	17.93	18.97	19.56	20.24	21.45	21.69	21.91	22.10
Solar Thermal	0.54	0.54	0.52	0.52	0.72	0.80	0.81	0.82	0.83	0.84	0.90	0.93	0.94
Solar Photovoltaic 5/	0.00	0.00	0.08	0.11	0.15	0.19	0.23	0.28	0.32	0.36	0.40	0.44	0.49
Wind	6.74	10.51	17.38	19.08	19.40	20.07	21.56	22.46	22.94	24.07	25.78	26.59	29.05
Total	258.85	304.49	338.95	374.49	379.36	383.63	388.85	392.78	396.16	400.69	404.87	407.84	412.59
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	2.20	2.63	2.77	3.12	3.12	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13
Geothermal 2/	0.29	0.30	0.30	0.30	0.32	0.37	0.41	0.47	0.54	0.61	0.67	0.73	0.80
Municipal Solid Waste 3/	0.26	0.27	0.35	0.35	0.36	0.36	0.37	0.38	0.38	0.38	0.38	0.38	0.38
Wood and Other Biomass 4/	0.17	0.18	0.24	0.24	0.28	0.29	0.30	0.31	0.32	0.33	0.33	0.34	0.33
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	0.07	0.11	0.18	0.20	0.20	0.21	0.22	0.23	0.24	0.25	0.27	0.27	0.30
Total	3.00	3.50	3.84	4.21	4.28	4.36	4.45	4.54	4.62	4.71	4.80	4.87	4.96
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
Municipal Solid Waste	0.21	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/	3.80	3.91	3.97	4.26	4.54	4.73	4.86	4.98	5.15	5.36	5.57	5.81	6.05
Total	4.01	4.16	4.23	4.51	4.79	4.98	5.11	5.23	5.40	5.61	5.83	6.06	6.30
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	1.78	1.84	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
Wood and Other Biomass 4/	26.91	28.16	28.56	30.23	31.85	32.96	33.72	34.45	35.40	36.63	37.90	39.25	40.69
Total	28.68	30.00	30.66	32.33	33.95	35.06	35.82	36.55	37.50	38.73	40.00	41.36	42.79

Table 89. Renewable Energy Generation by Fuel  
United States

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Energy Consumption (quadrillion Btu)													
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/	0.37	0.43	0.43	0.45	0.47	0.49	0.50	0.51	0.52	0.53	0.55	0.57	0.58
Total	0.41	0.47	0.48	0.50	0.52	0.53	0.54	0.55	0.56	0.58	0.60	0.61	0.63
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
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
Solar Photovoltaic	0.03	0.04	0.06	0.08	0.10	0.14	0.19	0.24	0.31	0.39	0.39	0.40	0.41
Total	1.05	1.06	1.08	1.10	1.12	1.16	1.21	1.27	1.33	1.41	1.42	1.42	1.43
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	3.21	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11
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
Solar Photovoltaic	0.06	0.09	0.12	0.16	0.22	0.30	0.41	0.52	0.66	0.82	0.84	0.86	0.87
Total	3.27	4.20	4.23	4.27	4.33	4.41	4.52	4.63	4.77	4.93	4.95	4.97	4.98
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.03	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
Solar Photovoltaic	0.00	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	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Table 89. Renewable Energy Generation by Fuel  
United States

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Electric Power Sector 1/													
Generating Capacity (gigawatts)													
Conventional Hydropower	78.68	78.68	78.68	78.68	78.68	78.68	78.68	78.68	78.68	78.68	78.68	78.68	0.0%
Geothermal 2/	4.91	5.11	5.24	5.43	5.54	5.82	6.06	6.24	6.34	6.39	6.57	6.84	3.8%
Municipal Solid Waste 3/	3.92	3.92	3.92	3.92	3.92	3.92	3.95	3.95	3.95	3.95	3.95	3.95	0.5%
Wood and Other Biomass 4/	2.27	2.31	2.31	2.55	2.69	2.85	3.04	3.22	3.25	3.28	3.40	3.74	3.2%
Solar Thermal	0.47	0.47	0.48	0.48	0.49	0.49	0.49	0.50	0.50	0.51	0.51	0.52	1.9%
Solar Photovoltaic 5/	0.22	0.24	0.25	0.27	0.29	0.31	0.32	0.34	0.36	0.38	0.39	0.41	13.5%
Wind	9.81	10.48	10.78	11.00	11.33	11.84	13.39	14.42	14.57	14.79	15.52	15.99	5.3%
Total	100.28	101.22	101.67	102.33	102.94	103.91	105.93	107.35	107.65	107.97	109.02	110.13	0.8%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower	304.39	304.42	304.45	304.48	304.51	304.54	304.57	304.60	304.64	304.67	304.71	304.74	0.8%
Geothermal 2/	30.69	32.31	33.44	34.99	35.94	38.16	40.14	41.70	42.59	43.08	44.53	46.66	5.6%
Municipal Solid Waste 3/	26.48	26.49	26.50	26.51	26.52	26.53	26.75	26.76	26.77	26.78	26.79	26.81	2.0%
Wood and Other Biomass 4/	22.33	22.99	23.41	24.04	24.35	25.06	25.56	26.09	26.58	26.63	26.78	27.08	6.0%
Solar Thermal	0.96	0.97	0.98	1.00	1.01	1.02	1.04	1.05	1.06	1.08	1.09	1.11	3.2%
Solar Photovoltaic 5/	0.53	0.57	0.62	0.66	0.71	0.75	0.79	0.84	0.88	0.93	0.97	1.02	28.8%
Wind	30.56	32.95	34.04	34.85	36.03	37.88	43.54	47.34	47.87	48.69	51.40	53.16	7.3%
Total	415.94	420.72	423.44	426.53	429.06	433.94	442.40	448.37	450.40	451.86	456.28	460.57	1.8%
Energy Consumption (quadrillion Btu)													
Conventional Hydropower	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	0.8%
Geothermal 2/	0.84	0.90	0.93	0.98	1.01	1.09	1.15	1.20	1.23	1.24	1.29	1.36	6.9%
Municipal Solid Waste 3/	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.39	1.5%
Wood and Other Biomass 4/	0.34	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.38	3.2%
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	3.2%
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	28.8%
Wind	0.31	0.34	0.35	0.36	0.37	0.39	0.45	0.49	0.49	0.50	0.53	0.55	7.3%
Total	5.02	5.11	5.16	5.23	5.28	5.37	5.51	5.60	5.63	5.66	5.73	5.83	2.2%
Combined Heat and Power 6/													
Generating Capacity (gigawatts)													
Municipal Solid Waste	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.0%
Wood and Other Biomass 4/	6.27	6.44	6.61	6.79	6.97	7.11	7.26	7.40	7.55	7.71	7.86	8.03	3.2%
Total	6.52	6.69	6.86	7.04	7.22	7.36	7.51	7.65	7.80	7.96	8.11	8.29	3.0%
Electricity Generation (billion kilowatthours)													
Municipal Solid Waste	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	0.6%
Wood and Other Biomass 4/	41.95	42.96	43.93	45.01	46.05	46.87	47.72	48.54	49.41	50.35	51.25	52.26	2.7%
Total	44.05	45.06	46.03	47.11	48.15	48.97	49.82	50.64	51.51	52.45	53.35	54.36	2.6%

Table 89. Renewable Energy Generation by Fuel  
United States

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Energy Consumption (quadrillion Btu)													
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	0.05	0.0%
Wood and Other Biomass 4/	0.60	0.61	0.63	0.64	0.65	0.66	0.67	0.68	0.70	0.71	0.72	0.73	2.4%
Total	0.65	0.66	0.67	0.69	0.70	0.71	0.72	0.73	0.74	0.75	0.76	0.78	2.2%
Other End-Use Generators 7/													
Generating Capacity (gigawatts)													
Conventional Hydropower 8/	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	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	0.00	N/A
Solar Photovoltaic	0.42	0.42	0.43	0.44	0.48	0.51	0.58	0.67	0.78	0.88	1.00	1.13	15.4%
Total	1.44	1.45	1.45	1.46	1.50	1.54	1.61	1.70	1.80	1.91	2.02	2.15	3.1%
Electricity Generation (billion kilowatthours)													
Conventional Hydropower 8/	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	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	0.00	N/A
Solar Photovoltaic	0.89	0.91	0.92	0.94	1.02	1.10	1.26	1.45	1.67	1.90	2.14	2.42	15.4%
Total	5.00	5.02	5.03	5.05	5.13	5.21	5.37	5.56	5.78	6.01	6.25	6.53	1.9%
Energy Consumption (quadrillion Btu)													
Conventional Hydropower 8/	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.0%
Geothermal 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Solar Photovoltaic	0.00	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	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.0%

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). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.
- 6/ Combined heat and power produces electricity and other useful thermal energy.
- 7/ Includes 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.
- 8/ Represents own-use industrial hydroelectric power.
- Note: Totals may not equal sum of components due to independent rounding. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.
- Sources: 2001 and 2002 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.