State Electricity Profiles 2003

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Quality

The Energy Information Administration is committed to quality products and quality service. To ensure that this report meets the highest standards for quality, please forward your comments or suggestions about this publication to Robert Schnapp at (202/287-1787) or E-mail: robert.schnapp@eia.doe.gov.

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Preface

The State Electricity Profiles 2003 presents a summary of State statistics. The objective of the publication is to provide industry decisionmakers, government policymakers, analysts, and the general public with historical data that may be used in understanding U.S. electricity markets. The State Electricity Profiles is prepared by the Electric Power Division; Office of Coal, Nuclear, Electric and Alternate Fuels; Energy Information Administration (EIA); U.S. Department of Energy.

Data in this report can be used in analytic studies to evaluate new legislation and are used by analysts, researchers, statisticians, and other professionals with regulatory, policy, and program responsibilities for Federal, State, and local governments.

The State Electricity Profiles presents a summary of the key State statistics for the reporting year contrasted with two prior years within the past 10 years. The tables present summary statistics; 10 largest plants by generating capacity; top five entities ranked by retail sales; electric power industry generating capacity by primary energy source; electric power industry generation of electricity by primary energy source; delivered fuel prices for coal, petroleum, and natural gas; electric power emissions estimates; retail sales, revenue, and average retail price by sector; and retail electricity sales statistics. Monetary values in this publication are expressed in nominal terms.

Data published in the State Electricity Profiles are compiled from five forms filed annually by electric utilities and other electric power producers.

Data Sources

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Table 1
    Form EIA-767, "Steam-Electric Plant Operation and Design Report"
Form EIA-860, "Annual Electric Generation Report"
Form EIA-861, "Annual Electric Power Industry Report"
Form EIA-906, "Power Plant Report"
Form EIA-920, "Combined Heat and Power Plant Report"
Table 2
    Form EIA-860, "Annual Electric Generation Report"
    Form EIA-861, "Annual Electric Power Industry Report"
Table 4
    Form EIA-860, "Annual Electric Generation Report"
Table 5
    Form EIA-906, "Power Plant Report"
    Form EIA-920, "Combined Heat and Power Plant Report"
    FERC Form 423, "Cost and Quality of Fuels for Electric Plants"
    Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report"
Table 7
    Form EIA-767, "Steam-Electric Plant Operation and Design Report"
    Form EIA-906, "Power Plant Report"
    Form EIA-920, "Combined Heat and Power Plant Report"
Table 8
    Form EIA-861, "Annual Electric Power Industry Report"
    Form EIA-861, "Annual Electric Power Industry Report"
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Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
Alabama			
NERC Region(s)		SERC	
Primary Energy Source		Coal	
Net Summer Capability (megawatts)	30,162	10	
Electric Utilities	23,007	8	
Independent Power Producers & Combined Heat and Power	7,154	15	
Net Generation (megawatthours)	137,487,222	8	
Electric Utilities	126,845,720	3	
Independent Power Producers & Combined Heat and Power	10,641,502	23	
Emissions (thousand metric tons)			
Sulfur Dioxide	453	9	
Nitrogen Oxide	152	8	
Carbon Dioxide	80,325	9	
Sulfur Dioxide (lbs/MWh)	7.3	15	
Nitrogen Oxide (lbs/MWh)	2.4	29	
Carbon Dioxide (lbs/MWh)	1,288	31	
Total Retail Sales (megawatthours)	83,844,220	15	
Full Service Provider Sales (megawatthours)	83,844,220	15	
Direct Use (megawatthours)	6,481,099	5	
Average Retail Price (cents/kWh)	5.88	40	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Alabama			
1. Browns Ferry	Nuclear	Tennessee Valley Authority	3,297
2. James H Miller Jr	Gas, Coal	Alabama Power Co	2,742
3. Barry	Gas, Coal	Alabama Power Co	2,520
4. E C Gaston	Petroleum, Coal	Alabama Power Co	1,897
5. Joseph M Farley	Nuclear	Alabama Power Co	1,675
6. Widows Creek	Petroleum, Coal	Tennessee Valley Authority	1,603
7. Colbert	Gas, Petroleum, Coal	Tennessee Valley Authority	1,559
8. Greene County	Petroleum, Gas, Coal	Alabama Power Co	1,249
9. Gorgas	Petroleum, Coal	Alabama Power Co	1,235
10. Franklin	Gas	Southern Power Co	1,139

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Alabama				l	1	
1. Alabama Power Co	Investor-Owned	52,208,020	16,959,566	13,648,655	21,599,799	0
2. Tennessee Valley Authority	Federal	5,872,117	0	0	5,872,117	0
3. Huntsville City of	Public	4,713,228	2,105,833	1,529,975	1,077,420	0
4. Decatur Utilities	Public	1,404,329	368,740	302,102	733,487	0
5. Joe Wheeler Elec Member Corp	Cooperative	1,152,382	556,980	234,696	360,706	0
Total Sales, Top Five Providers	-	65,350,076	19,991,119	15,715,428	29,643,529	0
Percent of Total State Sales		77.9	68.0	77.0	87.1	.0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

Energy Source				Annual	1	Percentage Share	2
	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
labama							
Electric Utilities	19,878	21,292	23,007	1.6	95.4	95.2	76.3
Coal	11,494	11,349	11,217	3	55.2	50.7	37.2
Petroleum	18	16	34	7.3	.1	.1	.1
Natural Gas	92	338	1,976	40.6	.4	1.5	6.6
Dual Fired	480	1,633	1,574	14.1	2.3	7.3	5.2
Nuclear	4,835	4,947	4,972	.3	23.2	22.1	16.5
Hydroelectric	2,959	3,009	3,234	1.0	14.2	13.4	10.7
Independent Power Producers and Combined							
Heat and Power	951	1.082	7.154	25.1	4.6	4.8	23.7
Coal	59	23	14	-14.8	.3	.1	*
Petroleum.	0	15	7	NM	.0	.1	2
Natural Gas	133	202	5.113	50.0	.6	.9	17.0
Other Gases	90	104	4	-29.2	.4	.5	*
Dual Fired.	0	21	1,472	NM	.0	.1	4.9
Other Renewables	669	717	544	-2.3	3.2	3.2	1.8
Total Electric Industry	20,829	22,373	30,162	4.2	100.0	100.0	100.0
Coal	11,554	11,372	11,231	3	55.5	50.8	37.2
Petroleum	18	31	41	9.6	.1	.1	
Natural Gas	224	539	7,090	46.8	1.1	2.4	23.
Other Gases	90	104	4	-29.2	.4	.5	
Dual Fired	480	1,654	3,046	22.8	2.3	7.4	10.
Nuclear	4,835	4,947	4,972	.3	23.2	22.1	16.
Hydroelectric	2,959	3,009	3,234	1.0	14.2	13.4	10.
Other Renewables	669	717	544	-2.3	3.2	3.2	1.3

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	1	Percentage Share	9
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
labama							
Electric Utilities	95,171,057	113,393,840	126,845,720	3.2	94.4	94.6	92.3
Coal	62,768,480	71,457,433	76,238,978	2.2	62.3	59.6	55.5
Petroleum	120,574	260,095	195,363	5.5	.1	.2	.1
Natural Gas	373,124	2,448,942	6,069,559	36.3	.4	2.0	4.4
Nuclear	20,479,759	28,662,513	31,676,953	5.0	20.3	23.9	23.0
Hydroelectric	11,429,120	10,564,857	12,664,867	1.1	11.3	8.8	9.2
Independent Power Producers and Combined							
Heat and Power	5,593,200	6,468,285	10,641,502	7.4	5.6	5.4	7.7
Coal	535,595	482,603	457,413	-1.7	.5	.4	.3
Petroleum	124,410	193,579	141,281	1.4	.1	.2	.1
Natural Gas	874,910	1,302,756	6,174,039	24.2	.9	1.1	4.5
Other Gases	328,383	268,002	170,368	-7.0	.3	.2	.1
Other Renewables	3,729,902	4,220,118	3,698,401	1	3.7	3.5	2.7
Other	0	1,227	0	NM	.0	*	.0
Total Electric Industry	100,764,257	119,862,125	137,487,222	3.5	100.0	100.0	100.0
Coal	63,304,075	71,940,036	76,696,391	2.2	62.8	60.0	55.8
Petroleum	244,984	453,674	336,644	3.6	.2	.4	.2
Natural Gas	1,248,034	3,751,698	12,243,598	28.9	1.2	3.1	8.9
Other Gases	328,383	268,002	170,368	-7.0	.3	.2	.1
Nuclear	20,479,759	28,662,513	31,676,953	5.0	20.3	23.9	23.0
Hydroelectric	11,429,120	10,564,857	12,664,867	1.1	11.3	8.8	9.2
Other Renewables	3,729,902	4,220,118	3,698,401	1	3.7	3.5	2.7
Other	0	1,227	0	NM	.0	*	.0

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Alabama				
Coal (cents per million Btu)	167.2	157.5	W	W
Average heat value (Btu per pound)	12,088	11,519	10,977	-1.1
Average sulfur Content (percent)	1.3	1.1	.9	-3.5
Petroleum (cents per million Btu)	402.0	287.6	\mathbf{W}	W
Average heat value (Btu per gallon)	137,865	139,510	141,394	.3
Average sulfur Content (percent)	.3	.2	.1	-9.2
Natural Gas (cents per million Btu)	234.3	247.5	561.5	10.2
Average heat value (Btu per cubic foot)	1.011	1,044	1.039	.3

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Alabama				
Sulfur Dioxide				
Coal	488	508	425	-1.5
Petroleum	1	3	1	9.4
Natural Gas	*	*	*	19.6
Other	25	15	26	.6
Total	513	526	453	-1.4
Nitrogen Oxide				
Coal	227	186	141	-5.2
Petroleum	*	1	1	2.4
Gas	4	7	5	2.7
Other	8	9	6	-3.2
Total	239	203	152	-4.9
Carbon Dioxide				
Coal	59,619	69,045	73,413	2.3
Petroleum	467	1,170	493	.6
Gas	2,135	4,341	6,359	12.9
Geothermal	_ ′		<u> </u>	NM
Other	_	_	59	NM
Total	62,220	74,556	80,325	2.9

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

			2003	Annual	Percentage Share			
Sector	1994 1998	1998		Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Alabama								
Retail Sales (thousand megawatthours)								
Residential	23,159	27,327	29,416	2.7	34.3	34.5	35.1	
Commercial	11,844	17,662	20,411	6.2	17.5	22.3	24.3	
Industrial	31,919	33,539	34,017	.7	47.2	42.4	40.6	
Other	659	644	NA	NM	1.0	.8	NA	
Total	67,581	79,173	83,844	2.4	100.0	100.0	100.0	
Retail Revenue (million dollars)								
Residential	1,550	1,897	2,175	3.8	41.8	43.1	44.1	
Commercial	800	1,155	1,399	6.4	21.6	26.2	28.4	
Industrial	1,315	1,306	1,355	.3	35.5	29.6	27.5	
Other	41	47	NA	NM	1.1	1.1	NA	
Total	3,707	4,404	4,929	3.2	100.0	100.0	100.0	
Average Retail Price (cents/kWh)								
Residential	6.69	6.94	7.39	1.1	NA	NA	NA	
Commercial	6.76	6.54	6.85	.1	NA	NA	NA	
Industrial	4.12	3.89	3.98	4	NA	NA	NA	
Other	6.28	7.26	NA	NM	NA	NA	NA	
Total	5.48	5.56	5.88	.8	NA	NA	NA	

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers					Other Providers			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total	
Alabama									
Number of Entities	1	36	1	25	NA	NA	NA	63	
Number of Retail Customers	1,363,120	476,247	22	499,615	NA	NA	NA	2,339,004	
Retail Sales (thousand megawatthours)	52,208	15,430	5,872	10,334	NA	NA	NA	83,844	
Percentage of Retail Sales	62.27	18.40	7.00	12.33	NA	NA	NA	100.00	
Revenue from Retail Sales (million dollars)	3,051	939	188	751	NA	NA	NA	4,929	
Percentage of Revenue	61.91	19.04	3.82	15.23	NA	NA	NA	100.00	
Average Retail Price (cents/kWh)	5.84	6.08	3.21	7.26	NA	NA	NA	5.88	

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
Alaska			
NERC Region(s)			
Primary Energy Source		Gas	
Net Summer Capability (megawatts)	1,896	48	
Electric Utilities	1,753	40	
Independent Power Producers & Combined Heat and Power	142	48	
Net Generation (megawatthours)	6,338,732	48	
Electric Utilities	5,673,462	42	
Independent Power Producers & Combined Heat and Power	665,271	45	
Emissions (thousand metric tons)			
Sulfur Dioxide	5	48	
Nitrogen Oxide	8	47	
Carbon Dioxide	3,944	46	
Sulfur Dioxide (lbs/MWh)	1.6	43	
Nitrogen Oxide (lbs/MWh)	2.7	23	
Carbon Dioxide (lbs/MWh)	1,372	26	
Total Retail Sales (megawatthours)	5,563,682	50	
Full Service Provider Sales (megawatthours)	5,563,682	49	
Direct Use (megawatthours)	1,077,994	30	
Average Retail Price (cents/kWh)	10.50	7	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Plant Energy Sources		Net Summer Capability (MW)
Alaska			
1. Beluga	Gas	Chugach Electric Assn Inc	344
George M Sullivan Generation Plant 2	Petroleum, Gas	Municipality of Anchorage	220
3. Bradley Lake	Hydro	Homer Electric Assn Inc	126
4. North Pole	Petroleum	Golden Valley Elec Assn Inc	96
5. Anchorage 1	Petroleum, Gas	Municipality of Anchorage	79
6. Snettisham	Hydro	Alaska Electric Light&Power Co	78
7. Bernice Lake	Gas	Chugach Electric Assn Inc	62
8. Lemon Creek	Petroleum	Alaska Electric Light&Power Co	58
9. Eklutna Hydro Project	Hydro	Municipality of Anchorage	44
10. International	Gas	Chugach Electric Assn Inc	42

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Alaska						
Chugach Electric Assn Inc	Cooperative	1,176,587	547,756	587,798	41,033	0
2. Golden Valley Elec Assn Inc	Cooperative	1,102,556	301,916	134,977	665,663	0
3. Municipality of Anchorage	Public	890,512	149,024	741,488	0	0
4. Matanuska Electric Assn Inc	Cooperative	581,689	368,675	213,014	0	0
5. Homer Electric Assn Inc	Cooperative	478,976	160,667	167,954	150,355	0
Total Sales, Top Five Providers		4,230,320	1,528,038	1,845,231	857,051	0
Percent of Total State Sales		76	77	75	78	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	Percentage Share	
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
laska							
Electric Utilities	1,738	1,720	1,753	0.1	86.0	85.1	92.5
Coal	54	25	25	-8.2	2.7	1.2	1.3
Petroleum	532	547	529	1	26.3	27.1	27.9
Natural Gas	492	481	532	.9	24.3	23.8	28.1
Dual Fired	308	308	270	-1.5	15.2	15.2	14.2
Hydroelectric	352	359	396	1.3	17.4	17.8	20.9
Other Renewables	0	0	1	NM	.0	.0	.1
Independent Power Producers and Combined	285	200	140	7 4	111	140	
Heat and Power		299	142	-7.4	14.1	14.8	7.5
Coal	57	83	60	.6	2.8	4.1	3.2
Petroleum	54	78	50	9	2.7	3.9	2.6
Natural Gas	100	101	32	-11.9	4.9	5.0	1.7
Dual Fired	37	37	0	NM	1.8	1.8	.0
Other Renewables	37	0	0	NM	1.8	.0	.0
Total Electric Industry	2,022	2,020	1,896	7	100.0	100.0	100.0
Coal	110	108	85	-2.8	5.4	5.3	4.5
	586	626	579	1	29.0	31.0	30.5
Petroleum			564	5	29.3	28.8	29.7
Petroleum Natural Gas	592	582					
Natural Gas		582 345					
	592 345 352	582 345 359	271 396	-2.6 1.3	17.1 17.4	17.1 17.8	14.3 20.9

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share		
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Alaska							
Electric Utilities	4,762,116	4,590,270	5,673,462	2.0	79.8	78.8	89.5
Coal	294,615	171,053	167,555	-6.1	4.9	2.9	2.6
Petroleum	441,197	756,914	775,374	6.5	7.4	13.0	12.2
Natural Gas	2,680,897 1,345,407	2,548,971 1.113,332	3,147,997 1,582,536	1.8 1.8	44.9 22.5	43.7 19.1	49.7 25.0
Independent Power Producers and Combined	1 204 400	1 220 555	((5.251	6.4	20.2	21.2	10.5
Heat and Power	1,204,400	1,238,575	665,271	-6.4	20.2	21.2	10.5
Coal	208,251 121,447	353,560 79,553	382,109 70,900	7.0 -5.8	3.5 2.0	6.1 1.4	6.0 1.1
Petroleum Natural Gas	720,278	803.924	70,900 206,485	-5.8 -13.0	2.0 12.1	13.8	3.3
Other Renewables	154,424	1,538	5,777	-30.6	2.6	13.8	.1
Total Electric Industry	5,966,516	5,828,845	6,338,732	.7	100.0	100.0	100.0
Coal	502,866	524,613	549,664	1.0	8.4	9.0	8.7
Petroleum	562,644	836,467	846,274	4.6	9.4	14.3	13.4
Natural Gas	3,401,175	3,352,895	3,354,482	2	57.0	57.5	52.9
Hydroelectric	1,345,407	1,113,332	1,582,536	1.8	22.5	19.1	25.0
Other Renewables	154,424	1,538	5,777	-30.6	2.6	*	.1

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Alaska				
Natural Gas (cents per million Btu)	112.9 999	179.8 1,000	229.0 1,000	8.2

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Alaska				
Sulfur Dioxide				
Coal	10	15	2	-16.9
Petroleum	*	1	3	28.6
Natural Gas	*	*	*	-1.1
Other	1	_	_	NM
Total	11	16	5	-9.3
Nitrogen Oxide				
Coal	6	6	4	-4.8
Petroleum	1	1	1	8.5
Gas	5	5	3	-6.2
Other	*	*	*	-36.2
Total	12	12	8	-4.6
Carbon Dioxide				
Coal	1,402	1,404	1,221	-1.5
Petroleum	616	800	716	1.7
Gas	2,170	2,145	2,007	9
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	4,188	4,350	3,944	7

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Po	ercentage Sha	·e
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Alaska							
Retail Sales (thousand megawatthours)							
Residential	1,688	1,768	1,987	1.8	37.2	34.7	35.7
Commercial	2,155	2,307	2,473	1.5	47.5	45.3	44.4
Industrial	511	818	1,104	8.9	11.3	16.0	19.8
Other	179	202	NA	NM	3.9	4.0	NA
Total	4,533	5,095	5,564	2.3	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	191	203	238	2.5	41.1	40.0	40.8
Commercial	208	219	259	2.5	44.7	43.1	44.3
Industrial	43	59	87	8.1	9.3	11.6	14.9
Other	23	28	NA	NM	4.9	5.5	NA
Total	465	508	584	2.6	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	11.32	11.50	11.98	.6	NA	NA	NA
Commercial	9.66	9.48	10.49	.9	NA	NA	NA
Industrial	8.37	7.17	7.86	7	NA	NA	NA
Other	12.57	13.68	NA	NM	NA	NA	NA
Total	10.25	9.97	10.50	.3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other Providers				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Alaska								
Number of Entities	21	34	NA	18	NA	NA	NA	73
Number of Retail Customers	26,659	56,553	NA	207,630	NA	NA	NA	290,842
Retail Sales (thousand megawatthours)	453	1,380	NA	3,730	NA	NA	NA	5,564
Percentage of Retail Sales	8.14	24.81	NA	67.05	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	60	142	NA	382	NA	NA	NA	584
Percentage of Revenue	10.20	24.35	NA	65.45	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	13.15	10.31	NA	10.25	NA	NA	NA	10.50

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Arizona		
NERC Region(s)		WECC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	23,510	15
Electric Utilities	16,193	15
Independent Power Producers & Combined Heat and Power	7,317	14
Net Generation (megawatthours)	94,396,218	16
Electric Utilities	80,348,246	15
Independent Power Producers & Combined Heat and Power	14,047,973	18
Emissions (thousand metric tons)		
Sulfur Dioxide	63	31
Nitrogen Oxide	80	22
Carbon Dioxide	46,655	20
Sulfur Dioxide (lbs/MWh)	1.5	44
Nitrogen Oxide (lbs/MWh)	1.9	36
Carbon Dioxide (lbs/MWh)	1,090	38
Total Retail Sales (megawatthours)	64,079,560	23
Full Service Provider Sales (megawatthours)	64,079,560	22
Direct Use (megawatthours)	373,797	39
Average Retail Price (cents/kWh)	7.34	17

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Arizona			·
1. Palo Verde	Nuclear	Arizona Public Service Co	3,825
2. Navajo	Petroleum, Coal	Salt River Proj Ag I & P Dist	2,250
3. Gila River Power Station	Other, Gas	Panda Gila River LP	2,060
4. Glen Canyon Dam	Hydro	U S Bureau of Reclamation	1,296
5. Mesquite Generating Station	Gas	Sempra Energy Resources	1,073
6. Hoover Dam	Hydro	U S Bureau of Reclamation	1,040
7. Cholla	Gas, Petroleum, Coal	Arizona Public Service Co	995
8. West Phoenix	Gas	Arizona Public Service Co	939
9. Redhawk	Gas	Pinnacle West Energy	918
10. Springerville	Petroleum, Coal	Tucson Electric Power Co	805

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Arizona	'	'		,	,	
1. Arizona Public Service Co	Investor-Owned	24,562,305	11,147,195	11,066,410	2,348,700	0
2. Salt River Proj Ag I & P Dist	Public	23,509,147	11,091,296	9,515,561	2,902,290	0
Tucson Electric Power Co	Investor-Owned	8,229,552	3,370,540	1,928,205	2,930,807	0
4. Morenci Water & Electric Co	Investor-Owned	1,628,981	10,170	14,193	1,604,618	0
5. Western Area Power Administrati	Federal	648,613	0	648,613	0	0
Total Sales, Top Five Providers		58,578,598	25,619,201	23,172,982	9,786,415	0
Percent of Total State Sales		91	92	91	90	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	Percentage Share		
Energy Source	1994 1998	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
rizona								
Electric Utilities	15,098	15,084	16,193	0.8	99.0	98.9	68.9	
Coal	5,119	5,286	5,336	.5	33.5	34.7	22.7	
Petroleum	97	85	108	1.2	.6	.6	.5	
Natural Gas	233	35	1,003	17.6	1.5	.2	4.3	
Dual Fired	3,006	3,052	2,988	1	19.7	20.0	12.7	
Nuclear	3,810	3,733	3,825	*	25.0	24.5	16.3	
Hydroelectric	2,648	2,708	2,706	.2	17.4	17.8	11.5	
Other Renewables	0	0	11	NM	.0	.0	*	
Pumped Storage	185	185	216	1.7	1.2	1.2	.9	
Independent Power Producers and Combined								
Heat and Power	161	170	7,317	52.8	1.1	1.1	31.1	
Coal	51	65	68	3.2	.3	.4	.3	
Petroleum	5	8	4	-2.4	*	.1	*	
Natural Gas	19	57	7,232	93.5	.1	.4	30.8	
Dual Fired	86	40	13	-18.9	.6	.3	.1	
Total Electric Industry	15,258	15,253	23,510	4.9	100.0	100.0	100.0	
Coal	5,170	5,351	5,404	.5	33.9	35.1	23.0	
Petroleum	102	93	112	1.0	.7	.6	.5	
Natural Gas	251	91	8,235	47.4	1.6	.6	35.0	
Dual Fired	3,092	3,092	3,001	3	20.3	20.3	12.8	
Nuclear	3,810	3,733	3,825	*	25.0	24.5	16.3	
Hydroelectric	2,648	2,708	2,706	.2	17.4	17.8	11.5	
Other Renewables	0	0	11	NM	.0	.0	*	
Pumped Storage	185	185	216	1.7	1.2	1.2	.9	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	1	Percentage Shar	e
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
rizona							
Electric Utilities	71,203,728	81,299,241	80,348,246	1.4	99.0	99.0	85.1
Coal.	38,072,165	36,225,373	37,739,559	1	52.9	44.1	40.0
Petroleum	128,437	61,227	46,706	-10.6	.2	.1	1
Natural Gas	2,162,370	3,472,416	6,580,927	13.2	3.0	4.2	7.0
Nuclear	23,170,894	30,301,045	28,581,053	2.4	32.2	36.9	30.3
Hydroelectric	7,365,425	10,970,189	7,074,984	4	10.2	13.4	7.5
Other Renewables	0	0	41,426	NM	.0	.0	
Pumped Storage	304,437	268,991	283,590	8	.4	.3	.3
Independent Power Producers and Combined							
Heat and Power	730,768	795,831	14,047,972	38.9	1.0	1.0	14.9
Coal	270,965	338,054	351,850	2.9	.4	.4	.4
Petroleum	23,733	1,989	1,970	-24.2	*	*	*
Natural Gas	321,165	455,788	12,351,714	50.0	.4	.6	13.1
Other Renewables	114,905	0	3,843	-31.4	.2	.0	1
Other	0	0	1,338,595	NM	.0	.0	1.4
Total Electric Industry	71,934,496	82,095,072	94,396,218	3.1	100.0	100.0	100.0
Coal	38,343,130	36,563,427	38,091,409	1	53.3	44.5	40.4
Petroleum	152,170	63,216	48,676	-11.9	.2	.1	.1
Natural Gas	2,483,535	3,928,204	18,932,641	25.3	3.5	4.8	20.
Nuclear	23,170,894	30,301,045	28,581,053	2.4	32.2	36.9	30
Hydroelectric	7,365,425	10,970,189	7,074,984	4	10.2	13.4	7.:
Other Renewables	114,905	0	45,269	-9.8	.2	.0	
Pumped Storage	304,437	268,991	283,590	8	.4	.3	
Other	0	0	1.338,595	NM	.0	.0	1.4

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Arizona				
Coal (cents per million Btu)	137.4	133.1	W	W
Average heat value (Btu per pound)	10,281	10,186	10,081	-0.2
Average sulfur Content (percent)	.5	.5	.6	2.5
Petroleum (cents per million Btu)	428.1	429.0	W	W
Average heat value (Btu per gallon)	142,149	138,851	139,550	2
Average sulfur Content (percent)	.3	.1	.2	-5.3
Natural Gas (cents per million Btu)	217.7	239.1	506.1	9.8
Average heat value (Btu per cubic foot)	1,023	1.014	1,021	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	n Type 1994 1998		2003	Annual Growth Rate 1994-2003 (Percent)
Arizona				
Sulfur Dioxide				
Coal	129	90	63	-7.7
Petroleum	1	*	*	-32.4
Natural Gas	*	*	*	25.2
Other	1	_	_	NM
Total	130	90	63	-7.7
Nitrogen Oxide				
Coal	162	77	74	-8.4
Petroleum	*	*	*	-26.9
Gas	3	5	6	6.3
Other	*	_	*	-19.8
Total	166	82	80	-7.8
Carbon Dioxide				
Coal	36,564	35,497	37,544	.3
Petroleum	128	51	43	-11.5
Gas	1,443	2,289	9,069	22.7
Geothermal	_ ′	_ ′		NM
Other	_	_	_	NM
Total	38,135	37,836	46,655	2.3

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Arizona							
Retail Sales (thousand megawatthours)							
Residential	18,212	21,611	27,742	4.8	38.5	38.7	43.3
Commercial	15,625	18,440	25,425	5.6	33.0	33.0	39.7
Industrial	11,303	12,549	10,914	4	23.9	22.5	17.0
Other	2,142	3,244	NA	NM	4.5	5.8	NA
Total	47,282	55,843	64,080	3.4	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,694	1,875	2,316	3.5	45.2	45.8	49.2
Commercial	1,301	1,430	1,803	3.7	34.7	34.9	38.3
Industrial	636	643	587	9	17.0	15.7	12.5
Other	117	144	NA	NM	3.1	3.5	NA
Total	3,747	4,092	4,706	2.6	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	9.30	8.68	8.35	-1.2	NA	NA	NA
Commercial	8.32	7.76	7.09	-1.8	NA	NA	NA
Industrial	5.63	5.12	5.37	5	NA	NA	NA
Other	5.47	4.43	NA	NM	NA	NA	NA
Total	7.93	7.33	7.34	9	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pro	Other I				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Arizona								
Number of Entities	5	28	3	9	NA	NA	NA	45
Number of Retail Customers	1,381,302	872,381	20,391	148,880	NA	NA	NA	2,422,954
Retail Sales (thousand megawatthours)	34,994	25,790	1,100	2,196	NA	NA	NA	64,080
Percentage of Retail Sales	54.61	40.25	1.72	3.43	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	2,744	1,719	43	199	NA	NA	NA	4,706
Percentage of Revenue	58.32	36.53	.92	4.23	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	7.84	6.67	3.95	9.06	NA	NA	NA	7.34

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Arkansas		
NERC Region(s)		SPP/SERC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	13,548	27
Electric Utilities	9,777	25
Independent Power Producers & Combined Heat and Power	3,773	23
Net Generation (megawatthours)	50,401,101	27
Electric Utilities	41,636,514	24
Independent Power Producers & Combined Heat and Power	8,764,587	27
Emissions (thousand metric tons)		
Sulfur Dioxide	79	29
Nitrogen Oxide	46	34
Carbon Dioxide	27,220	32
Sulfur Dioxide (lbs/MWh)	3.4	34
Nitrogen Oxide (lbs/MWh)	2.0	34
Carbon Dioxide (lbs/MWh)	1,191	36
Total Retail Sales (megawatthours)	43,108,259	30
Full Service Provider Sales (megawatthours)	43,108,259	30
Direct Use (megawatthours)	2,393,069	20
Average Retail Price (cents/kWh)	5.57	44

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Arkansas			
1. Union Power Station	Gas	TPS-Arkansas Operations	2,020
2. Arkansas Nuclear One	Nuclear	Entergy Arkansas Inc	1,840
3. White Bluff	Petroleum, Coal	Entergy Arkansas Inc	1,635
4. Independence	Petroleum, Coal	Entergy Arkansas Inc	1,630
5. Robert E Ritchie	Gas	Entergy Arkansas Inc	883
6. Lake Catherine	Gas	Entergy Arkansas Inc	735
7. Hot Spring Energy Facility	Gas	Duke Energy Hot Spring LLC	652
8. Wrightsville Power Facility	Gas	Wrightsville Power Fac LLC	568
9. Flint Creek	Petroleum, Coal	Southwestern Electric Power Co	480
10. Bull Shoals	Hydro	USCE-Little Rock District	391

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Arkansas	,	,				
Entergy Arkansas Inc	Investor-Owned	19,649,578	7,056,948	5,593,868	6,998,762	0
2. Southwestern Electric Power Co	Investor-Owned	3,956,951	1,017,381	1,336,324	1,603,246	0
3. Mississippi County Electric Coo	Cooperative	3,078,968	54,715	20,460	3,003,793	0
4. Oklahoma Gas & Electric Co	Investor-Owned	2,649,439	674,467	830,766	1,144,206	0
5. First Electric Coop Corp	Cooperative	1,439,456	947,868	151,362	340,226	0
Total Sales, Top Five Providers	-	30,774,392	9,751,379	7,932,780	13,090,233	0
Percent of Total State Sales		71	63	75	77	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	1	Percentage Share	2
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
rkansas							
Electric Utilities	9,674	9,618	9,777	0.1	95.7	96.1	72.2
Coal	3,817	3,817	3,745	2	37.8	38.1	27.6
Petroleum	206	206	18	-23.7	2.0	2.1	.1
Natural Gas	67	14	199	12.9	.7	.1	1.5
Dual Fired	2,564	2,582	2,560	*	25.4	25.8	18.9
Nuclear	1,694	1,694	1,840	.9	16.8	16.9	13.6
Hydroelectric	1,298	1,277	1,387	.7	12.8	12.8	10.2
Pumped Storage	28	28	28	.0	.3	.3	.2
Independent Power Producers and Combined							
Heat and Power	432	395	3,773	27.2	4.3	3.9	27.8
Petroleum	4	3	0	NM	*	*	.0
Natural Gas	138	102	3,312	42.3	1.4	1.0	24.4
Dual Fired.	35	35	156	18.1	.3	.3	1.2
Hydroelectric	1	1	1	.0	*	*	*
Other Renewables	254	254	304	2.0	2.5	2.5	2.2
Total Electric Industry	10,106	10,013	13,548	3.3	100.0	100.0	100.0
Coal	3,817	3,817	3,745	2	37.8	38.1	27.6
Petroleum	210	209	18	-23.9	2.1	2.1	.1
Natural Gas	205	116	3,510	37.1	2.0	1.2	25.9
Dual Fired	2,599	2,617	2,716	.5	25.7	26.1	20.0
Nuclear	1,694	1,694	1,840	.9	16.8	16.9	13.6
Hydroelectric	1,299	1,278	1,388	.7	12.9	12.8	10.2
Other Renewables	254	254	303	2.0	2.5	2.5	2.2
Pumped Storage	28	28	28	.0	.3	.3	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	
Energy Source	1994 1998 2003		Growth Rate 1994-2003 (Percent)	1994	1998	2003	
arkansas							
Electric Utilities	39,547,768	43,198,908	41,636,514	0.6	94.1	94.6	82.6
Coal	19,780,738	23,140,020	23,422,401	1.9	47.1	50.7	46.5
Petroleum	96,439	143,834	263,982	11.8	.2	.3	.5
Natural Gas	2,284,992	3,704,159	597,283	-13.8	5.4	8.1	1.2
Nuclear	13,923,701	13,097,252	14,689,416	.6	33.1	28.7	29.1
Hydroelectric	3,461,898	3,113,643	2,653,347	-2.9	8.2	6.8	5.3
Pumped Storage	0	0	10,085	NM	.0	.0	*
Independent Power Producers and Combined							
Heat and Power	2,484,380	2,466,393	8,764,588	15.0	5.9	5.4	17.4
Coal	71,380	40,184	81,765	1.5	.2	.1	.2
Petroleum	3,174	21,515	24,924	25.7	*	*	*
Natural Gas	840,335	802,920	6,703,577	26.0	2.0	1.8	13.3
Other Gases	0	185	0	NM	.0	.0	.0
Hydroelectric	743	3,100	1,271	6.1	*	*	*
Other Renewables	1,566,911	1,598,489	1,843,889	1.8	3.7	3.5	3.7
Other	1,837	0	109,161	57.4	*	.0	.2
Total Electric Industry	42,032,148	45,665,301	50,401,101	2.0	100.0	100.0	100.0
Coal	19,852,118	23,180,204	23,504,166	1.9	47.2	50.8	46.6
Petroleum	99,613	165,349	288,906	12.6	.2	.4	.6
Natural Gas	3,125,327	4,507,079	7,300,860	9.9	7.4	9.9	14.5
Other Gases	0	185	0	NM	.0	.0	.0
Nuclear	13,923,701	13,097,252	14,689,416	.6	33.1	28.7	29.1
Hydroelectric	3,462,641	3,116,743	2,654,618	-2.9	8.2	6.8	5.3
Other Renewables	1,566,911	1,598,489	1,843,889	1.8	3.7	3.5	3.7
Pumped Storage	0	0	10,085	NM	.0	.0	*
Other	1,837	0	109,161	57.4	*	.0	.2

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Arkansas				
Coal (cents per million Btu)	160.3	147.2	119.5	-3.2
Average heat value (Btu per pound)	8,707	8,671	8,758	.1
Average sulfur Content (percent)	.3	.3	.3	-1.4
Petroleum (cents per million Btu)	358.9	370.8	645.5	6.7
Average heat value (Btu per gallon)	140,162	141,228	140,479	*
Average sulfur Content (percent)	.5	.4	.4	-1.6
Natural Gas (cents per million Btu)	182.3	224.0	423.4	9.8
Average heat value (Btu per cubic foot)	1,024	1,023	1,033	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Arkansas				
Sulfur Dioxide				
Coal	66	66	65	-0.2
Petroleum	*	1	2	26.0
Natural Gas	*	*	*	8.0
Other	13	6	12	3
Total	78	73	79	.1
Nitrogen Oxide				
Coal	92	38	37	-9.5
Petroleum	*	*	*	19.4
Gas	7	9	4	-5.3
Other	4	4	4	4
Total	103	51	46	-8.6
Carbon Dioxide				
Coal	20,824	23,981	23,551	1.4
Petroleum	80	134	256	13.9
Gas	3,103	3,863	3,412	1.1
Geothermal	_ ′	_ ′		NM
Other	2	_	_	NM
Total	24,009	27,978	27,220	1.4

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Arkansas							
Retail Sales (thousand megawatthours)							
Residential	11,642	14,339	15,598	3.3	35.7	36.5	36.2
Commercial	6,866	8,205	10,568	4.9	21.0	20.9	24.5
Industrial	13,526	16,066	16,942	2.5	41.5	40.9	39.3
Other	585	705	NA	NM	1.8	1.8	NA
Total	32,619	39,315	43,108	3.1	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	940	1,076	1,130	2.1	45.4	47.4	47.1
Commercial	472	484	585	2.4	22.8	21.3	24.4
Industrial	622	669	685	1.1	30.0	29.4	28.5
Other	38	42	NA	NM	1.8	1.8	NA
Total	2,072	2,272	2,399	1.6	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	8.07	7.51	7.24	-1.2	NA	NA	NA
Commercial	6.88	5.90	5.54	-2.4	NA	NA	NA
Industrial	4.60	4.16	4.04	-1.4	NA	NA	NA
Other	6.46	5.98	NA	NM	NA	NA	NA
Total	6.35	5.78	5.57	-1.4	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers						Other Providers		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total	
Arkansas									
Number of Entities	4	15	NA	17	3	NA	NA	39	
Number of Retail Customers	832,486	164,252	NA	419,184	4	NA	NA	1,415,926	
Retail Sales (thousand megawatthours)	26,393	5,458	NA	10,990	267	NA	NA	43,108	
Percentage of Retail Sales	61.22	12.66	NA	25.49	.62	NA	NA	100.00	
Revenue from Retail Sales (million dollars)	1,474	296	NA	621	8	NA	NA	2,399	
Percentage of Revenue	61.44	12.34	NA	25.87	.35	NA	NA	100.00	
Average Retail Price (cents/kWh)	5.59	5.43	NA	5.65	3.12	NA	NA	5.57	

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
California		
NERC Region(s)		WECC
Primary Energy Source		Gas
Net Summer Capability (megawatts)	57,850	2
Electric Utilities	23,223	7
Independent Power Producers & Combined Heat and Power	34,627	4
Net Generation (megawatthours)	192,788,542	4
Electric Utilities	81,728,209	13
Independent Power Producers & Combined Heat and Power	111,060,333	4
Emissions (thousand metric tons)		
Sulfur Dioxide	17	42
Nitrogen Oxide	60	31
Carbon Dioxide	55,855	16
Sulfur Dioxide (lbs/MWh)	.2	50
Nitrogen Oxide (lbs/MWh)	.7	46
Carbon Dioxide (lbs/MWh)	639	47
Total Retail Sales (megawatthours)	238,709,728	2
Full Service Provider Sales (megawatthours)	172,746,724	3
Deregulated Sales (megawatthours)	65,963,004	1
Direct Use (megawatthours)	15,183,496	3
Average Retail Price (cents/kWh)	11.62	3

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
California			·
1. Moss Landing Power Plant	Gas	Duke Energy North America LLC	2,498
2. Diablo Canyon	Nuclear	Pacific Gas & Electric Co	2,174
3. San Onofre	Nuclear	Southern California Edison Co	2,150
4. AES Alamitos LLC	Gas	AES Alamitos LLC	1,987
5. Ormond Beach	Gas	Reliant Energy Ormond Bch LLC	1,516
6. Castaic	Hydro	Los Angeles City of	1,495
7. Haynes	Gas	Los Angeles City of	1,348
8. Pittsburg Power	Gas	Mirant Delta LLC	1,311
9. AES Redondo Beach LLC	Gas	AES Redondo Beach LLC	1,310
10. Helms Pumped Storage	Hydro	Pacific Gas & Electric Co	1,212

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
California						
Southern California Edison Co	Investor-Owned	52,229,092	21,319,622	25,574,334	5,290,058	45,078
Pacific Gas & Electric Co Electric Fund (CDWR)	Investor-Owned Power Marketer	47,881,180 42,268,207	19,460,983 15,102,091	22,134,150 20,819,775	6,286,047	0 12.871
4. Los Angeles City of	Public	23.040.163	7.792.453	12.640.270	6,333,470 2,476,441	130.999
5. San Diego Gas & Electric Co	Investor-Owned	10,048,511	4,476,343	4,244,814	1,231,354	96,000
Total Sales, Top Five Providers		175,467,153	68,151,492	85,413,343	21,617,370	284,948
Percent of Total State Sales		74	84	79	44	35

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
California								
Electric Utilities	43,297	30,663	23,223	-6.7	81.0	58.5	40.1	
Petroleum	558	395	185	-11.5	1.0	.8	.3	
Natural Gas	16,926	6,510	1,654	-22.8	31.7	12.4	2.9	
Dual Fired	6,277	4,413	3,500	-6.3	11.7	8.4	6.0	
Nuclear	4,310	4,310	4,324	*	8.1	8.2	7.5	
Hydroelectric	9,773	9,780	9,716	1	18.3	18.7	16.8	
Other Renewables	1,723	1,525	156	-23.4	3.2	2.9	.3	
Pumped Storage	3,730	3,730	3,688	1	7.0	7.1	6.4	
Independent Power Producers and Combined								
Heat and Power	10,158	21,712	34,627	14.6	19.0	41.5	59.9	
Coal	421	381	357	-1.8	.8	.7	.6	
Petroleum	48	191	507	29.9	.1	.4	.9	
Natural Gas	3,778	13,083	26,084	23.9	7.1	25.0	45.1	
Other Gases	220	203	225	.3	.4	.4	.4	
Dual Fired	925	3,473	2,184	10.0	1.7	6.6	3.8	
Hydroelectric	643	476	232	-10.7	1.2	.9	.4	
Other Renewables	4,114	3,896	5,021	2.2	7.7	7.4	8.7	
Other	9	9	17	7.3	*	*	*	
Total Electric Industry	53,457	52,374	57,850	.9	100.0	100.0	100.0	
Coal	421	381	358	-1.8	.8	.7	.6	
Petroleum	607	586	692	1.5	1.1	1.1	1.2	
Natural Gas	20,705	19,592	27,738	3.3	38.7	37.4	47.9	
Other Gases	220	203	225	.3	.4	.4	.4	
Dual Fired	7,202	7,885	5,684	-2.6	13.5	15.1	9.8	
Nuclear	4,310	4,310	4,324	*	8.1	8.2	7.5	
Hydroelectric	10,416	10,256	9,947	5	19.5	19.6	17.2	
Other Renewables	5,837	5,422	5,177	-1.3	10.9	10.4	8.9	
Pumped Storage	3,730	3,730	3,688	1	7.0	7.1	6.4	
Other	9	9	17	7.3	*	*	*	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
California								
Electric Utilities	126,749,186	114,926,213	81,728,209	-4.8	68.1	60.6	42.4	
Petroleum	1,862,719	121,385	50,996	-33.0	1.0	.1	*	
Natural Gas	61,530,357	26,385,452	9,873,371	-18.4	33.0	13.9	5.1	
Nuclear	33,752,237	34,594,206	35,593,789	.6	18.1	18.2	18.5	
Hydroelectric	21,917,229	47,475,341	35,782,738	5.6	11.8	25.0	18.6	
Other Renewables	6,751,795	5,141,028	1,339,627	-16.4	3.6	2.7	.7	
Pumped Storage	934,849	1,208,801	-912,313	NM	.5	.6	5	
Independent Power Producers and Combined								
Heat and Power	59,442,805	74,674,493	111,060,334	7.2	31.9	39.4	57.6	
Coal	3,271,691	2,159,070	2,326,305	-3.7	1.8	1.1	1.2	
Petroleum	1,548,422	2,091,687	2,341,252	4.7	.8	1.1	1.2	
Natural Gas	32,901,443	48,746,540	81,558,810	10.6	17.7	25.7	42.3	
Other Gases	2,959,314	3,076,556	1,759,015	-5.6	1.6	1.6	.9	
Hydroelectric	1,095,386	2,072,859	587,965	-6.7	.6	1.1	.3	
Other Renewables	17,652,424	16,507,556	22,442,789	2.7	9.5	8.7	11.6	
Other	14,125	20,225	44,198	13.5	*	*	*	
Total Electric Industry	186,191,991	189,600,706	192,788,542	.4	100.0	100.0	100.0	
Coal	3,271,691	2,159,070	2,326,305	-3.7	1.8	1.1	1.2	
Petroleum	3,411,141	2,213,072	2,392,248	-3.9	1.8	1.2	1.2	
Natural Gas	94,431,800	75,131,992	91,432,181	4	50.7	39.6	47.4	
Other Gases	2,959,314	3,076,556	1,759,015	-5.6	1.6	1.6	.9	
Nuclear	33,752,237	34,594,206	35,593,789	.6	18.1	18.2	18.5	
Hydroelectric	23,012,615	49,548,200	36,370,703	5.2	12.4	26.1	18.9	
Other Renewables	24,404,219	21,648,584	23,782,416	3	13.1	11.4	12.3	
Pumped Storage	934,849	1,208,801	-912,313	NM	.5	.6	5	
Other	14,125	20,225	44,198	13.5	*	*	*	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
California				
Coal (cents per million Btu)	0.0	0.0	172.7	NM
Average heat value (Btu per pound)	0	0	11,943	NM
Average sulfur Content (percent)	.0	.0	.7	NM
Petroleum (cents per million Btu)	216.3	274.7	266.5	2.3
Average heat value (Btu per gallon)	146,100	144,857	124,229	-1.8
Average sulfur Content (percent)	.4	.0	.9	10.5
Natural Gas (cents per million Btu)	248.4	268.6	536.7	8.9
Average heat value (Btu per cubic foot)	1,029	1,021	1,025	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
California				
Sulfur Dioxide				
Coal	25	16	3	-21.9
Petroleum	47	52	13	-13.2
Natural Gas	*	*	*	1
Other	1	3	1	*
Total	73	71	17	-14.8
Nitrogen Oxide				
Coal	17	13	5	-12.8
Petroleum	8	8	7	-1.5
Gas	74	55	43	-5.8
Other	10	14	5	-7.1
Total	108	89	60	-6.4
Carbon Dioxide				
Coal	4,728	3,580	3,851	-2.3
Petroleum	3,668	3,012	2,988	-2.3
Gas	53,249	45,644	48,319	-1.1
Geothermal	351	330	330	7
Other	93	90	366	16.4
Total	62,089	52,656	55,855	-1.2

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

			2003	Annual	Percentage Share		
Sector	1994	1998		Growth Rate 1994-2003 (Percent)	1994	1998	2003
California							
Retail Sales (thousand megawatthours)							
Residential	68,866	75,205	80,699	1.8	32.2	31.8	33.8
Commercial	76,925	92,517	108,049	3.8	36.0	39.1	45.3
Industrial	59,864	61,641	49,153	-2.2	28.0	26.1	20.6
Other	8,030	7,071	NA	NM	3.8	3.0	NA
Transportation	NA	NA	809	NM	NA	NA	.3
Total	213,684	236,434	238,710	1.2	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	7,869	7,964	9,686	2.3	37.6	37.7	34.9
Commercial	8,383	8,782	13,167	5.1	40.1	41.6	47.5
Industrial	4,246	4,001	4,840	1.5	20.3	19.0	17.4
Other	401	358	NA	NM	1.9	1.7	NA
Transportation	NA	NA	48	NM	NA	NA	.2
Total	20,900	21,105	27,741	3.2	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	11.43	10.60	12.00	.5	NA	NA	NA
Commercial	10.90	9.66	12.19	1.3	NA	NA	NA
Industrial	7.09	6.59	9.85	3.7	NA	NA	NA
Other	5.00	5.06	NA	NM	NA	NA	NA
Transportation	NA	NA	5.88	NM	NA	NA	NA
Total	9.78	9.03	11.62	1.9	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pro	Other Pr				
<u> </u>	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
California								
Number of Entities	6	35	1	4	22	14	4	86
Number of Retail Customers	10,788,096	3,128,465	48	14,659	25	68,164	NA	13,999,457
Retail Sales (thousand megawatthours)	111,655	57,361	1,790	256	1,684	65,963	NA	238,710
Percentage of Retail Sales	46.77	24.03	.75	.11	.71	27.63	NA	100.00
Revenue from Retail Sales (million dollars)	14,931	5,453	41	22	117	4,907	2,270	27,741
Percentage of Revenue	53.82	19.66	.15	.08	.42	17.69	8.18	100.00
Average Retail Price (cents/kWh)	13.37	9.51	2.28	8.73	6.97	7.44	3.44	11.62

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
Colorado			
NERC Region(s)		WECC	
Primary Energy Source		Coal	
Net Summer Capability (megawatts)	10,370	32	
Electric Utilities	7,884	28	
Independent Power Producers & Combined Heat and Power	2,486	31	
Net Generation (megawatthours)	46,616,787	30	
Electric Utilities	41,226,252	26	
Independent Power Producers & Combined Heat and Power	5,390,534	35	
Emissions (thousand metric tons)			
Sulfur Dioxide	70	30	
Nitrogen Oxide	71	26	
Carbon Dioxide	40,599	24	
Sulfur Dioxide (lbs/MWh)	3.3	35	
Nitrogen Oxide (lbs/MWh)	3.4	17	
Carbon Dioxide (lbs/MWh)	1,920	11	
Total Retail Sales (megawatthours)	46,494,645	27	
Full Service Provider Sales (megawatthours)	46,494,645	26	
Direct Use (megawatthours)	495,263	35	
Average Retail Price (cents/kWh)	6.77	24	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Colorado			
1. Craig	Petroleum, Gas, Coal	Tri-State G & T Assn Inc	1,264
2. Cherokee	Gas, Coal	Public Service Co of Colorado	722
3. Fort St Vrain	Gas	Public Service Co of Colorado	691
4. Comanche	Gas, Coal	Public Service Co of Colorado	660
5. Pawnee	Gas, Coal	Public Service Co of Colorado	505
6. Front Range Power Project	Gas	Colorado Springs City of	462
7. Rawhide	Petroleum, Gas, Coal	Platte River Power Authority	450
8. Hayden	Petroleum, Gas, Coal	Public Service Co of Colorado	446
9. Cabin Creek	Hydro	Public Service Co of Colorado	324
10. Blue Spruce Energy Center	Gas	Blue Spruce Energy Center LLC	276

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Colorado						
Public Service Co of Colorado Colorado Springs City of	Investor-Owned Public	25,845,962 4.268,278	8,251,118 1,291,590	12,868,557 1.831,743	4,688,829 1,144,945	37,458
Intermountain Rural Elec Assn Aquila Inc	Cooperative Investor-Owned	1,729,110 1,728,312	1,125,014 546,859	511,511 675,719	92,585 505.734	0
5. Fort Collins City of	Public	1,330,081	433,488	462,099	434,494	0
Total Sales, Top Five Providers Percent of Total State Sales		34,901,743 75	11,648,069 74	16,349,629 83	6,866,587 62	37,458 100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

Energy Source	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)	Percentage Share		
					1994	1998	2003
olorado							
Electric Utilities	6,674	6,935	7,884	1.9	91.3	91.1	76.0
Coal	4,954	4,962	4,891	1	67.7	65.2	47.2
Petroleum	141	142	162	1.6	1.9	1.9	1.0
Natural Gas	25	244	944	49.7	.3	3.2	9.1
Dual Fired.	424	411	699	5.7	5.8	5.4	6.3
Hydroelectric	598	614	601	.1	8.2	8.1	5.8
Other Renewables	0	0	24	NM	.0	.0	
Pumped Storage	532	562	563	.6	7.3	7.4	5.4
Independent Power Producers and Combined							
Heat and Power	639	677	2,486	16.3	8.7	8.9	24.0
Coal	33	33	40	2.2	.5	.4	.4
Petroleum	3	3	2	-4.4	*	*	2
Natural Gas	381	606	1,915	19.7	5.2	8.0	18.3
Dual Fired.	187	0	306	5.6	2.6	.0	3.0
Hydroelectric	30	30	38	2.7	.4	.4	.4
Other Renewables	5	5	185	49.4	.1	.1	1.8
Total Electric Industry	7,313	7,613	10,370	4.0	100.0	100.0	100.0
Coal	4,986	4,996	4,931	1	68.2	65.6	47.6
Petroleum	144	145	164	1.5	2.0	1.9	1.0
Natural Gas	407	850	2,859	24.2	5.6	11.2	27.0
Dual Fired	611	411	1,005	5.7	8.4	5.4	9.
Hydroelectric	628	644	639	.2	8.6	8.5	6.2
Other Renewables	5	5	209	51.4	.1	.1	2.0
Pumped Storage	532	562	563	.6	7.3	7.4	5.4

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

Energy Source		1998	2003	Annual Growth Rate 1994-2003 (Percent)	Percentage Share		
	1994				1994	1998	2003
Colorado							
Electric Utilities	33,324,413	35,471,294	41,226,252	2.4	93.5	91.2	88.4
Coal	31,401,250	33,079,201	35,807,527	1.5	88.1	85.1	76.8
Petroleum	8,913	36,736	33,927	16.0	*	.1	.1
Natural Gas	373,868	963,657	4,369,743	31.4	1.0	2.5	9.4
Other Gases	0	0	4,001	NM	.0	.0	*
Hydroelectric	1,428,515	1,346,170	1,156,217	-2.3	4.0	3.5	2.5
Other Renewables	0	0	58,477	NM	.0	.0	.1
Pumped Storage	111,867	45,530	-203,640	NM	.3	.1	4
Independent Power Producers and Combined							
Heat and Power	2,327,498	3,410,269	5,390,534	9.8	6.5	8.8	11.6
Coal	235,333	278,648	308,096	3.0	.7	.7	.7
Petroleum	1,307	12,454	67	-28.1	*	*	.0
Natural Gas	1,946,874	2,972,657	4,856,290	10.7	5.5	7.6	10.4
Hydroelectric	115,522	115,791	105,980	-1.0	.3	.3	.2
Other Renewables	28,462	30,719	120,102	17.3	.1	.1	.3
Total Electric Industry	35,651,911	38,881,563	46,616,787	3.0	100.0	100.0	100.0
Coal	31,636,583	33,357,849	36,115,623	1.5	88.7	85.8	77.5
Petroleum	10,220	49,190	33,994	14.3	*	.1	.1
Natural Gas	2,320,742	3,936,314	9,226,033	16.6	6.5	10.1	19.8
Other Gases	0	0	4,001	NM	.0	.0	*
Hydroelectric	1,544,037	1,461,961	1,262,197	-2.2	4.3	3.8	2.7
Other Renewables	28,462	30,719	178,579	22.6	.1	.1	.4
	111,867	45,530	-203,640	NM	.3		

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)	
Colorado					
Coal (cents per million Btu)	105.6	98.7	96.6	-1.0	
Average heat value (Btu per pound)	9,946	9,834	9,793	2	
Average sulfur Content (percent)	.4	.4	.4	3	
Petroleum (cents per million Btu)	458.1	.0	W	W	
Average heat value (Btu per gallon)	134,590	0	123,942	9	
Average sulfur Content (percent)	.1	.0	*	-22.3	
Natural Gas (cents per million Btu)	212.5	300.3	429.9	8.1	
Average heat value (Btu per cubic foot)	1,042	994	1.027	2	

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Colorado				
Sulfur Dioxide				
Coal	98	97	70	-3.6
Petroleum	*	*	*	3.2
Natural Gas	*	*	*	19.6
Other	*	_	_	NM
Total	98	97	70	-3.6
Nitrogen Oxide				
Coal	136	73	67	-7.5
Petroleum	*	*	*	25.6
Gas	3	4	4	2.7
Other	*	*	*	-23.5
Total	139	77	71	-7.2
Carbon Dioxide				
Coal	32,044	33,600	35,999	1.3
Petroleum	14	67	32	9.7
Gas	1,431	2,163	4,569	13.8
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	33,488	35,830	40,599	2.2

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

Sector	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)	Percentage Share		
					1994	1998	2003
Colorado							
Retail Sales (thousand megawatthours)							
Residential	10,939	12,652	15,725	4.1	31.7	32.0	33.8
Commercial	12,953	15,959	19,657	4.7	37.5	40.3	42.3
Industrial	9,620	9,998	11,076	1.6	27.9	25.3	23.8
Other	990	965	NA	NM	2.9	2.4	NA
Transportation	NA	NA	37	NM	NA	NA	.1
Total	34,502	39,574	46,495	3.4	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	805	942	1,280	5.3	38.4	40.0	40.7
Commercial	777	904	1,298	5.9	37.1	38.3	41.3
Industrial	440	433	565	2.8	21.0	18.4	18.0
Other	74	76	NA	NM	3.5	3.2	NA
Transportation	NA	NA	3	NM	NA	NA	.1
Total	2,096	2,357	3,146	4.6	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.36	7.45	8.14	1.1	NA	NA	NA
Commercial	6.00	5.67	6.60	1.1	NA	NA	NA
Industrial	4.58	4.34	5.10	1.2	NA	NA	NA
Other	7.43	7.92	NA	NM	NA	NA	NA
Transportation	NA	NA	7.32	NM	NA	NA	NA
Total	6.07	5.95	6.77	1.2	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pro		Other 1			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Colorado								
Number of Entities	2	29	1	28	7	NA	NA	67
Number of Retail Customers	1,365,652	391,150	5	508,019	7	NA	NA	2,264,833
Retail Sales (thousand megawatthours)	27,574	8,109	69	10,380	362	NA	NA	46,495
Percentage of Retail Sales	59.31	17.44	.15	22.33	.78	NA	NA	100.00
Revenue from Retail Sales (million dollars)	1,901	471	1	761	13	NA	NA	3,146
Percentage of Revenue	60.41	14.96	.04	24.20	.40	NA	NA	100.00
Average Retail Price (cents/kWh)	6.89	5.80	1.73	7.33	3.48	NA	NA	6.77

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Connecticut		
NERC Region(s)		NPCC
Primary Energy Source		Nuclear
Net Summer Capability (megawatts)	7,573	34
Electric Utilities	210	46
Independent Power Producers & Combined Heat and Power	7,363	13
Net Generation (megawatthours)	29,545,050	40
Electric Utilities	59,812	46
Independent Power Producers & Combined Heat and Power	29,485,238	11
Emissions (thousand metric tons)		
Sulfur Dioxide	8	46
Nitrogen Oxide	11	45
Carbon Dioxide	9,534	40
Sulfur Dioxide (lbs/MWh)	.6	46
Nitrogen Oxide (lbs/MWh)	.8	45
Carbon Dioxide (lbs/MWh)	711	46
Total Retail Sales (megawatthours)	31,830,218	33
Full Service Provider Sales (megawatthours)	31,230,118	33
Deregulated Sales (megawatthours)	600,100	16
Direct Use (megawatthours)	1,539,033	24
Average Retail Price (cents/kWh)	10.16	9

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources Operating Company		Net Summer Capability (MW)
Connecticut			
1. Millstone	Nuclear	Dominion Nuclear Conn Inc	1,997
2. Middletown	Other, Gas, Petroleum	Middletown Power LLC	837
3. Lake Road Generating Plant	Petroleum, Gas	Lake Road Generating Co LP	732
4. Bridgeport Station	Other, Petroleum, Coal	PSEG Power Connecticut LLC	513
5. Montville Station	Gas, Petroleum	NRG Montville Operations Inc	496
6. Bridgeport Energy Project	Gas	Bridgeport Energy LLC	454
7. New Haven Harbor	Petroleum	PSEG Power Connecticut LLC	448
8. Devon Station	Gas, Petroleum	NRG Devon Operations Inc	354
9. NRG Norwalk Harbor	Petroleum	NRG Norwalk Harbor Ops Inc	342
10. PPL Wallingford Energy LLC	Gas	PPL Wallingford Energy LLC	190

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Connecticut						
Connecticut Light & Power Co United Illuminating Co	Investor-Owned Investor-Owned	23,517,194 5,763,052	10,069,162 2.261.954	9,775,938 2,549,352	3,479,764 951,746	192,330
3. Wallingford Town of	Public Public	614,272	213,019	233,183	168,070	0
4. Groton Dept of Utilities 5. Norwich City of	Public	587,266 341,834 30.823.618	114,212 124,983 12,783,330	129,562 164,380 12.852,415	343,492 52,471 4,995,543	0
Total Sales, Top Five Providers Percent of Total State Sales		97	12,783,330	12,832,413	4,993,343	192,330 100

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Connecticut							
Electric Utilities	6,732	5,617	210	-32.0	91.7	85.6	2.8
Coal	385	385	0	NM	5.2	5.9	.0
Petroleum	2,210	2,197	178	-24.4	30.1	33.5	2.3
Natural Gas	214	341	0	NM	2.9	5.2	.0
Dual Fired	528	547	23	-29.4	7.2	8.3	.3
Nuclear	3,194	2,011	0	NM	43.5	30.6	.0
Hydroelectric	131	130	9	-25.7	1.8	2.0	.1
Other Renewables	64	0	0	NM	.9	.0	.0
Pumped Storage	6	6	0	NM	.1	.1	.0
Independent Power Producers and Combined							
Heat and Power	607	949	7,363	32.0	8.3	14.5	97.2
Coal	200	200	553	12.0	2.7	3.0	7.3
Petroleum	0	0	2,084	NM	.0	.0	27.5
Natural Gas	57	406	701	32.2	.8	6.2	9.3
Dual Fired	194	77	1,632	26.7	2.6	1.2	21.5
Nuclear	0	0	1,997	NM	.0	.0	26.4
Hydroelectric	21	19	137	23.2	.3	.3	1.8
Other Renewables	135	244	254	7.3	1.8	3.7	3.4
Pumped Storage	0	0	4	NM	.0	.0	.1
Other	0	3	1	NM	.0	*	*
Total Electric Industry	7,339	6,565	7,573	.3	100.0	100.0	100.0
Coal	585	585	553	6	8.0	8.9	7.3
Petroleum	2,210	2,197	2,263	.3	30.1	33.5	29.9
Natural Gas	271	747	701	11.1	3.7	11.4	9.3
Dual Fired	722	624	1,654	9.6	9.8	9.5	21.8
Nuclear	3,194	2,011	1,997	-5.1	43.5	30.6	26.4
Hydroelectric	152	148	146	4	2.1	2.3	1.9
Other Renewables	199	244	254	2.7	2.7	3.7	3.4
Pumped Storage	6	6	4	-4.4	.1	.1	.1
Other	0	3	1	NM	.0	*	*

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Connecticut								
Electric Utilities	27,201,416	15,122,925	59,812	-49.3	87.2	76.8	0.2	
Coal	2,104,045	1,482,608	0	NM	6.7	7.5	.0	
Petroleum	3,353,897	8,608,001	13,955	-45.6	10.8	43.7	*	
Natural Gas	732,277	977,388	0	NM	2.3	5.0	.0	
Nuclear	20,159,938	3,243,003	0	NM	64.7	16.5	.0	
Hydroelectric	409,502	384,447	45,857	-21.6	1.3	2.0	.2	
Other Renewables	438,962	427,389	0	NM	1.4	2.2	.0	
Pumped Storage	2,795	89	0	NM	*	.0	.0	
Independent Power Producers and Combined								
Heat and Power	3,977,501	4,568,567	29,485,238	24.9	12.8	23.2	99.8	
Coal	1,518,731	1,533,639	4,200,297	12.0	4.9	7.8	14.2	
Petroleum	189,665	57,081	2,048,713	30.3	.6	.3	6.9	
Natural Gas	1,166,308	1,280,080	5,061,613	17.7	3.7	6.5	17.1	
Other Gases	0	239	0	NM	.0	*	.0	
Nuclear	0	0	16,078,095	NM	.0	.0	54.4	
Hydroelectric	71,660	63,838	518,559	24.6	.2	.3	1.8	
Other Renewables	1,031,137	1,633,690	1,565,942	4.8	3.3	8.3	5.3	
Pumped Storage	0	0	-18	NM	.0	.0	.0	
Other	0	0	12,037	NM	.0	.0	*	
Total Electric Industry	31,178,917	19,691,492	29,545,050		100.0	100.0	100.0	
Coal	3,622,776	3,016,247	4,200,297	1.7	11.6	15.3	14.2	
Petroleum	3,543,562	8,665,082	2,062,668	-5.8	11.4	44.0	7.0	
Natural Gas	1,898,585	2,257,468	5,061,613	11.5	6.1	11.5	17.1	
Other Gases	0	239	0		.0	*	.0	
Nuclear	20,159,938	3,243,003	16,078,095	-2.5	64.7	16.5	54.4	
Hydroelectric	481,162	448,285	564,416	1.8	1.5	2.3	1.9	
Other Renewables	1,470,099	2,061,079	1,565,942	.7	4.7	10.5	5.3	
Pumped Storage	2,795	89	-18	NM	*	.0	.0	
Other	0	0	12,037	NM	.0	.0	*	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Connecticut				
Coal (cents per million Btu)	177.4	181.1	W	W
Average heat value (Btu per pound)	13,094	13,138	10,565	-2.4
Average sulfur Content (percent)	.5	.5	.5	.2
Petroleum (cents per million Btu)	253.1	218.7	542.0	8.8
Average heat value (Btu per gallon)	151,052	152,132	146,744	3
Average sulfur Content (percent)	.8	.8	.4	-7.1
Natural Gas (cents per million Btu)	196.0	236.9	W	W
Average heat value (Btu per cubic foot)	1,017	1,030	1,020	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Connecticut				
Sulfur Dioxide				
Coal	9	7	3	-10.9
Petroleum	16	38	5	-12.2
Natural Gas	*	*	*	8.0
Other	*	1	*	4.6
Total	25	45	8	-11.5
Nitrogen Oxide				
Coal	12	8	2	-16.4
Petroleum	4	11	2	-5.8
Gas	2	3	1	-9.7
Other	2	3	5	9.2
Total	20	25	11	-6.9
Carbon Dioxide				
Coal	3,446	2,994	3,926	1.5
Petroleum	3,186	7,458	1,869	-5.8
Gas	1,182	1,512	2,509	8.7
Geothermal	_	_	_	NM
Other	158	271	1,230	25.6
Total	7,971	12,235	9,534	2.0

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Percentage Share			
Sector	1994	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Connecticut								
Retail Sales (thousand megawatthours)								
Residential	10,898	10,935	13,178	2.1	38.9	37.8	41.4	
Commercial	10,845	11,683	13,094	2.1	38.7	40.3	41.1	
Industrial	5,917	5,838	5,366	-1.1	21.1	20.2	16.9	
Other	366	500	NA	NM	1.3	1.7	NA	
Transportation	NA	NA	192	NM	NA	NA	.6	
Total	28,026	28,956	31,830	1.4	100.0	100.0	100.0	
Retail Revenue (million dollars)								
Residential	1,250	1,306	1,491	2.0	43.8	43.8	46.1	
Commercial	1,084	1,169	1,300	2.0	38.0	39.2	40.2	
Industrial	467	449	429	9	16.4	15.0	13.3	
Other	51	58	NA	NM	1.8	1.9	NA	
Transportation	NA	NA	15	NM	NA	NA	.5	
Total	2,853	2,983	3,235	1.4	100.0	100.0	100.0	
Average Retail Price (cents/kWh)								
Residential	11.47	11.95	11.31	2	NA	NA	NA	
Commercial	9.99	10.01	9.93	1	NA	NA	NA	
Industrial	7.90	7.70	7.99	.1	NA	NA	NA	
Other	14.00	11.65	NA	NM	NA	NA	NA	
Transportation	NA	NA	7.72	NM	NA	NA	NA	
Total	10.18	10.30	10.16	*	NA	NA	NA	

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr		Other Pr	roviders		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Connecticut								
Number of Entities	3	7	NA	NA	NA	5	2	17
Number of Retail Customers	1,467,971	68,616	NA	NA	NA	22,673	NA	1,559,260
Retail Sales (thousand megawatthours)	29,323	1,907	NA	NA	NA	600	NA	31,830
Percentage of Retail Sales	92.12	5.99	NA	NA	NA	1.89	NA	100.00
Revenue from Retail Sales (million dollars)	3,026	152	NA	NA	NA	29	27	3,235
Percentage of Revenue	93.55	4.70	NA	NA	NA	.91	.84	100.00
Average Retail Price (cents/kWh)	10.32	7.98	NA	NA	NA	4.91	4.53	10.16

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Delaware		
NERC Region(s)		MAAC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	3,393	44
Electric Utilities	58	48
Independent Power Producers & Combined Heat and Power	3,334	27
Net Generation (megawatthours)	7,392,287	47
Electric Utilities	31,107	48
Independent Power Producers & Combined Heat and Power	7,361,180	31
Emissions (thousand metric tons)		
Sulfur Dioxide	36	37
Nitrogen Oxide	13	41
Carbon Dioxide	6,996	45
Sulfur Dioxide (lbs/MWh)	10.7	6
Nitrogen Oxide (lbs/MWh)	4.0	12
Carbon Dioxide (lbs/MWh)	2,086	6
Total Retail Sales (megawatthours)	12,599,590	42
Full Service Provider Sales (megawatthours)	10,488,250	42
Deregulated Sales (megawatthours)	2,111,340	13
Direct Use (megawatthours)	563,430	34
Average Retail Price (cents/kWh)	6.96	19

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Delaware			
1. Hay Road	Petroleum, Gas	Conectiv Delmarva Gen Inc	1,060
2. Indian River Operations	Petroleum, Coal	Indian River Operations Inc	784
3. Edge Moor	Gas, Petroleum, Coal	Conectiv Delmarva Gen Inc	717
4. Delaware City Plant	Gas, Petroleum	Motiva Enterprises LLC	382
5. McKee Run	Gas, Petroleum	DFD Operating Services LLC	136
6. NRG Energy Center Dover	Petroleum, Gas, Coal	NRG Energy Center Dover LLC	120
7. Warren F Sam Beasley Generation Station	Petroleum, Gas	Delaware Municipal Electric Corp	49
8. Christiana	Petroleum	Conectiv Delmarva Gen Inc	45
9. Van Sant Station	Petroleum, Gas	DFD Operating Services LLC	39
10. Delaware City 10	Petroleum	Conectiv Delmarva Gen Inc	16

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Delaware						
Delmarva Power & Light Company Delaware Electric Coop Inc Dover City of	Investor-Owned Cooperative Public	7,843,542 949,356 736,383	2,895,993 791,738 180,474	3,266,959 147,250 226,404	1,680,590 10,368 329,505	0 0 0
4. Conectiv Energy Services Inc	Power Marketer Public	598,301 379,846 10,507,428 83	0 94,233 3,962,438 95	0 65,416 3,706,029 95	598,301 220,197 2,838,961 63	0 0 0 0

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	1	Percentage Share	e
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Delaware							
Electric Utilities	2,269	2,285	58	-33.5	92.8	93.2	1.7
Coal	931	1,027	0	NM	38.1	41.9	.0
Petroleum	124	572	9	-25.3	5.1	23.3	.3
Natural Gas	399	175	0	NM	16.3	7.1	.0
Dual Fired	815	511	49	-26.8	33.3	20.8	1.4
Independent Power Producers and Combined							
Heat and Power	176	166	3,334	38.7	7.2	6.8	98.3
Coal	37	27	1,052	45.1	1.5	1.1	31.0
Petroleum	134	134	561	17.2	5.5	5.5	16.5
Natural Gas	0	4	183	NM	.0	.2	5.4
Other Gases	1	1	303	88.7	*	*	8.9
Dual Fired	4	0	1,235	89.1	.2	.0	36.4
Total Electric Industry	2,445	2,451	3,393	3.7	100.0	100.0	100.0
Coal	968	1,054	1,052	.9	39.6	43.0	31.0
Petroleum	258	706	570	9.2	10.6	28.8	16.8
Natural Gas	399	179	184	-8.2	16.3	7.3	5.4
Other Gases	1	1	303	88.7	*	*	8.9
Dual Fired	819	511	1.284	5.1	33.5	20.8	37.8

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	1	Percentage Shar	e
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	2003	
Delaware							
Electric Utilities	8,501,043	6,317,738	31,107	-46.4	92.1	91.6	0.4
Coal	4,754,309	3,811,669	0	NM	51.5	55.3	.0
Petroleum	1,619,659	1,234,464	9,863	-43.3	17.5	17.9	.1
Natural Gas	2,127,075	1,271,605	21,244	-40.1	23.0	18.4	.3
Independent Power Producers and Combined							
Heat and Power	729,233	580,847	7,361,180	29.3	7.9	8.4	99.6
Coal	195,094	94,508	4,026,496	40.0	2.1	1.4	54.5
Petroleum	421,942	289,170	1,707,001	16.8	4.6	4.2	23.1
Natural Gas	3,342	5,367	1,442,536	96.2	*	.1	19.5
Other Gases	100,885	187,641	185,147	7.0	1.1	2.7	2.5
Other	7,970	4,161	0	NM	.1	.1	.0
Total Electric Industry	9,230,276	6,898,585	7,392,287	-2.4	100.0	100.0	100.0
Coal	4,949,403	3,906,177	4,026,496	-2.3	53.6	56.6	54.5
Petroleum	2,041,601	1,523,634	1,716,864	-1.9	22.1	22.1	23.2
Natural Gas	2,130,417	1,276,972	1,463,780	-4.1	23.1	18.5	19.8
Other Gases	100,885	187,641	185,147	7.0	1.1	2.7	2.5
Other	7,970	4,161	0	NM	.1	.1	.0

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Delaware				
Coal (cents per million Btu)	162.0	156.3	W	W
Average heat value (Btu per pound)	12,954	12,962	12,802	-0.1
Average sulfur Content (percent)	.9	1.0	.9	2
Petroleum (cents per million Btu)	259.3	214.7	576.2	9.3
Average heat value (Btu per gallon)	149,735	150,957	147,895	1
Average sulfur Content (percent)	.8	.7	.5	-5.3
Natural Gas (cents per million Btu)	234.2	297.7	W	W
Average heat value (Btu per cubic foot)	1,037	971	1,043	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
elaware				
Sulfur Dioxide				
Coal	35	35	32	-1.1
Petroleum	43	6	4	-22.7
Natural Gas	*	*	_	NM
Other	*	*	*	-32.2
Total	78	41	36	-8.2
Nitrogen Oxide				
Coal	19	13	8	-8.8
Petroleum	4	3	4	1.7
Gas	2	*	1	-11.1
Other	_	_	*	NM
Total	25	16	13	-6.6
Carbon Dioxide				
Coal	5,170	4,031	4,153	-2.4
Petroleum	2,545	2,026	2,196	-1.6
Gas	963	589	646	-4.3
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	8,678	6,646	6,996	-2.4

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Delaware							
Retail Sales (thousand megawatthours)							
Residential	3,107	3,339	4,190	3.4	33.4	32.1	33.3
Commercial	2,685	3,227	3,886	4.2	28.9	31.0	30.8
Industrial	3,447	3,779	4,523	3.1	37.1	36.3	35.9
Other	60	53	NA	NM	.6	.5	NA
Total	9,299	10,398	12,600	3.4	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	277	305	360	2.9	43.9	42.6	41.0
Commercial	188	228	284	4.7	29.8	31.8	32.4
Industrial	159	176	233	4.3	25.2	24.6	26.6
Other	7	7	NA	NM	1.1	1.0	NA
Total	631	716	877	3.7	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	8.91	9.13	8.59	4	NA	NA	NA
Commercial	7.00	7.07	7.31	.5	NA	NA	NA
Industrial	4.62	4.65	5.15	1.2	NA	NA	NA
Other	11.17	13.17	NA	NM	NA	NA	NA
Total	6.78	6.88	6.96	.3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other Providers				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Delaware								
Number of Entities	1	9	NA	1	NA	5	1	17
Number of Retail Customers	280,525	54,829	NA	65,407	NA	7	NA	400,768
Retail Sales (thousand megawatthours)	7,844	1,695	NA	949	NA	2,111	NA	12,600
Percentage of Retail Sales	62.25	13.46	NA	7.53	NA	16.76	NA	100.00
Revenue from Retail Sales (million dollars)		139	NA	80	NA	93	4	877
Percentage of Revenue	63.90	15.89	NA	9.09	NA	10.61	.50	100.00
Average Retail Price (cents/kWh)	7.15	8.22	NA	8.40	NA	4.41	.21	6.96

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
District of Columbia		
NERC Region(s)		MAAC
Primary Energy Source		Petroleum
Net Summer Capability (megawatts)	806	51
Electric Utilities	0	51
Independent Power Producers & Combined Heat and Power	806	41
Net Generation (megawatthours)	74,144	51
Independent Power Producers & Combined Heat and Power	74,144	50
Emissions (thousand metric tons)		
Sulfur Dioxide	*	50
Nitrogen Oxide	*	51
Carbon Dioxide	82	50
Sulfur Dioxide (lbs/MWh)	8.5	10
Nitrogen Oxide (lbs/MWh)	5.7	1
Carbon Dioxide (lbs/MWh)	2,438	1
Total Retail Sales (megawatthours)	10,946,383	45
Full Service Provider Sales (megawatthours)	5,725,475	48
Deregulated Sales (megawatthours)	5,220,908	11
Direct Use (megawatthours)	384	50
Average Retail Price (cents/kWh)	7.40	16

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
District of Columbia			
1. Benning	Petroleum Petroleum	Potomac Power Resources Potomac Power Resources	550 256

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
District of Columbia						
Potomac Electric Power Co	Investor-Owned	5,725,475	1,522,724	4,115,543	87,208	0
2. Washington Gas Energy Services	Power Marketer	2,971,072	228,707	2,553,146	171,036	18,183
3. PEPCO Energy Services	Power Marketer	1,913,630	135,728	1,777,902	0	0
Constellation NewEnergy, Inc	Power Marketer	269,445	0	0	0	269,445
Total Sales, Top Five Providers		10,879,622	1,887,159	8,446,591	258,244	287,628
Percent of Total State Sales		99	100	98	97	100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share		
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
District of Columbia								
Electric Utilities	806	806	0	NM	99.6	100.0	0.0	
Petroleum	806	806	0	NM	99.6	100.0	.0	
Independent Power Producers and Combined								
Heat and Power	3	0	806	86.2	.4	.0	100.0	
Coal	3	0	0	NM	.4	.0	.0	
Petroleum	0	0	806	NM	.0	.0	100.0	
Total Electric Industry	809	806	806	*	100.0	100.0	100.0	
Coal	3	0	0	NM	.4	.0	.0	
Petroleum	806	806	806	.0	99.6	100.0	100.0	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
District of Columbia								
Electric Utilities	274,252	243,975	0	NM	100.0	100.0	0.0	
Petroleum	274,252	243,975	0	NM	100.0	100.0	.0	
Independent Power Producers and Combined								
Heat and Power	0	0	74,144	NM	.0	.0	100.0	
Petroleum	0	0	74,144	NM	.0	.0	100.0	
Total Electric Industry	274,252	243,975	74,144	-13.5	100.0	100.0	100.0	
Petroleum	274,252	243,975	74,144	-13.5	100.0	100.0	100.0	

See footnotes at end of tables.

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
District of Columbia				
Petroleum (cents per million Btu)	326.4 143,271 .9	252.9 143,071 1.0	W 142,324 .6	W -0.1 -4.3

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	Type 1994 1998 2003		Annual Growth Rate 1994-2003 (Percent)	
District of Columbia				
Sulfur Dioxide				
Coal	_	_	_	NM
Petroleum	2	1	*	-17.0
Natural Gas	_	_	_	NM
Other	_	_	_	NM
Total	2	1	*	-17.0
Nitrogen Oxide				
Coal	_	_	_	NM
Petroleum	*	*	*	-3.9
Gas	_	_	_	NM
Other	_	_	_	NM
Total	*	*	*	-3.9
Carbon Dioxide				
Coal	_	_	_	NM
Petroleum	307	259	82	-13.7
Gas	_	_	_	NM
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	307	259	82	-13.7

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
District of Columbia							
Retail Sales (thousand megawatthours)							
Residential	1,572	1,596	1,754	1.2	15.3	15.5	16.0
Commercial	8,093	8,051	8,639	.7	78.6	78.3	78.9
Industrial	267	262	267	.0	2.6	2.5	2.4
Other	363	372	NA	NM	3.5	3.6	NA
Transportation	NA	NA	285	NM	NA	NA	2.6
Total	10,295	10,281	10,946	.7	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	117	128	138	1.8	16.0	16.8	17.0
Commercial	578	598	635	1.0	78.8	78.5	78.4
Industrial	12	11	15	2.5	1.6	1.4	1.8
Other	24	24	NA	NM	3.3	3.1	NA
Transportation	NA	NA	22	NM	NA	NA	2.7
Total	733	762	810	1.1	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.47	8.00	7.84	.5	NA	NA	NA
Commercial	7.15	7.43	7.35	.3	NA	NA	NA
Industrial	4.63	4.38	5.57	2.1	NA	NA	NA
Other	6.72	6.56	NA	NM	NA	NA	NA
Transportation	NA	NA	7.64	NM	NA	NA	NA
Total	7.12	7.41	7.40	.4	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

						1		
		Fu	ıll Service Pr	oviders		Other P		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
District of Columbia								
Number of Entities	1	NA	NA	NA	NA	3	1	5
Number of Retail Customers	198,926	NA	NA	NA	NA	26,574	NA	225,500
Retail Sales (thousand megawatthours)	5,725	NA	NA	NA	NA	5,221	NA	10,946
Percentage of Retail Sales	52.30	NA	NA	NA	NA	47.70	NA	100.00
Revenue from Retail Sales (million dollars)	434	NA	NA	NA	NA	225	150	810
Percentage of Revenue	53.64	NA	NA	NA	NA	27.79	18.58	100.00
Average Retail Price (cents/kWh)	7.58	NA	NA	NA	NA	4.31	2.88	7.40

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Florida		
NERC Region(s)		FRCC/SERC
Primary Energy Source		Gas
Net Summer Capability (megawatts)	49,418	3
Electric Utilities	41,997	1
Independent Power Producers & Combined Heat and Power	7,421	12
Net Generation (megawatthours)	212,610,011	2
Electric Utilities	188,034,719	1
Independent Power Producers & Combined Heat and Power	24,575,293	12
Emissions (thousand metric tons)		
Sulfur Dioxide	468	8
Nitrogen Oxide	257	2
Carbon Dioxide	128,796	2
Sulfur Dioxide (lbs/MWh)	4.9	22
Nitrogen Oxide (lbs/MWh)	2.7	24
Carbon Dioxide (lbs/MWh)	1,336	28
Total Retail Sales (megawatthours)	217,378,622	3
Full Service Provider Sales (megawatthours)	217,378,622	2
Direct Use (megawatthours)	6,902,953	4
Average Retail Price (cents/kWh)	7.72	14

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Plant Energy Sources		Net Summer Capability (MW)
Florida			
1. Crystal River	Petroleum, Nuclear, Coal	Florida Power Corp	3,140
2. Martin	Petroleum, Gas	Florida Power & Light Co	2,890
3. Fort Myers	Petroleum, Gas	Florida Power & Light Co	2,303
4. Turkey Point	Gas, Petroleum, Nuclear	Florida Power & Light Co	2,205
5. Sanford	Petroleum, Gas	Florida Power & Light Co	2,018
6. Big Bend	Petroleum, Coal	Tampa Electric Co	1,852
7. Lauderdale	Petroleum, Gas	Florida Power & Light Co	1,699
8. St Lucie	Nuclear	Florida Power & Light Co	1,678
9. Port Everglades	Gas, Petroleum	Florida Power & Light Co	1,653
10. Manatee	Gas, Petroleum	Florida Power & Light Co	1,628

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Florida						
Florida Power & Light Co Florida Power Corp	Investor-Owned Investor-Owned	99,339,144 37,956,702	53,400,788 19.428,943	41,847,336 14.527,200	3,997,822 4,000,559	93,198
3. Tampa Electric Co	Investor-Owned	18,242,316	8,264,748	7,398,234	2,579,334	0
4. JEA	Public	12,293,323	5,424,721	3,903,196	2,961,410	3,996
5. Gulf Power Co	Investor-Owned	10,884,789	5,101,099	3,636,734	2,146,956	0
Total Sales, Top Five Providers		178,716,274	91,620,299	71,312,700	15,686,081	97,194
Percent of Total State Sales		82	81	84	81	100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share			
Energy Source	1994 19	1998	2003	Growth Rate 1994-2003 (Percent)	1994 1998		2003		
orida									
Electric Utilities	35,487	36,471	41,997	1.9	91.5	90.8	85.0		
Coal	10,037	10,676	10,223	.2	25.9	26.6	20.7		
Petroleum	5,497	5,621	3,033	-6.4	14.2	14.0	6.1		
Natural Gas	3,381	3,448	6,405	7.4	8.7	8.6	13.0		
Dual Fired	12,703	12,807	18,376	4.2	32.8	31.9	37.2		
Nuclear	3,822	3,869	3,902	.2	9.9	9.6	7.9		
Hydroelectric	47	47	50	.7	.1	.1			
Other Renewables	0	3	8	NM	.0	*	*		
Independent Power Producers and Combined									
Heat and Power	3,288	3,682	7,421	9.5	8.5	9.2	15.0		
Coal	502	811	799	5.3	1.3	2.0	1.0		
Petroleum	66	21	17	-14.0	.2	.1	:		
Natural Gas	710	1,047	694	3	1.8	2.6	1.4		
Dual Fired	703	341	4,606	23.2	1.8	.8	9.3		
Other Renewables	960	1,115	895	8	2.5	2.8	1.3		
Other	347	347	410	1.9	.9	.9	.8		
Total Electric Industry	38,775	40,154	49,418	2.7	100.0	100.0	100.0		
Coal	10,539	11,488	11,022	.5	27.2	28.6	22.3		
Petroleum	5,562	5,643	3,050	-6.5	14.3	14.1	6.2		
Natural Gas	4,092	4,495	7,099	6.3	10.6	11.2	14.4		
Dual Fired	13,406	13,148	22,982	6.2	34.6	32.7	46.		
Nuclear	3,822	3,869	3,902	.2	9.9	9.6	7.9		
Hydroelectric	47	47	50	.7	.1	.1			
Other Renewables	960	1,117	903	7	2.5	2.8	1.		
Other	347	347	410	1.9	.9	.9			

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
lorida								
Electric Utilities	141,790,885	169,447,167	188,034,719	3.2	89.7	89.4	88.4	
Coal	60,770,030	65,470,151	62,094,661	.2	38.4	34.5	29.2	
Petroleum	33,330,039	40,952,580	35,545,897	.7	21.1	21.6	16.3	
Natural Gas	20,734,235	31,710,512	59,013,591	12.3	13.1	16.7	27.3	
Nuclear	26,682,107	31,115,419	30,979,481	1.7	16.9	16.4	14.	
Hydroelectric	274,474	198,505	262,667	5	.2	.1		
Other Renewables	0	0	138,421	NM	.0	.0		
Independent Power Producers and Combined								
Heat and Power	16,355,961	20,181,829	24,575,293	4.6	10.3	10.6	11.0	
Coal	2,695,078	4,809,293	5,579,919	8.4	1.7	2.5	2.	
Petroleum	567,345	569,071	1,658,672	12.7	.4	.3		
Natural Gas	5,417,694	7,212,679	9,279,829	6.2	3.4	3.8	4.4	
Other Gases	34,879	80,305	10,505	-12.5	*	*	:	
Other Renewables	5,589,623	5,467,332	5,667,271	.2	3.5	2.9	2.	
Other	2,051,342	2,043,149	2,379,097	1.7	1.3	1.1	1	
Total Electric Industry	158,146,846	189,628,996	212,610,011	3.3	100.0	100.0	100.	
Coal	63,465,108	70,279,444	67,674,580	.7	40.1	37.1	31.	
Petroleum	33,897,384	41,521,651	37,204,569	1.0	21.4	21.9	17.	
Natural Gas	26,151,929	38,923,191	68,293,420	11.3	16.5	20.5	32.	
Other Gases	34,879	80,305	10,505	-12.5	*	*		
Nuclear	26,682,107	31,115,419	30,979,481	1.7	16.9	16.4	14.	
Hydroelectric	274,474	198,505	262,667	5	.2	.1		
Other Renewables	5,589,623	5,467,332	5,805,692	.4	3.5	2.9	2.	
Other	2,051,342	2,043,149	2,379,097	1.7	1.3	1.1	1.	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Florida				
Coal (cents per million Btu)	177.8	164.8	175.5	-0.1
Average heat value (Btu per pound)	12,293	12,144	12,281	*
Average sulfur Content (percent)	1.6	1.5	1.4	-1.2
Petroleum (cents per million Btu)	226.0	193.3	388.6	6.2
Average heat value (Btu per gallon)	151,248	143,814	148,432	2
Average sulfur Content (percent)	1.4	1.8	2.0	3.7
Natural Gas (cents per million Btu)	215.5	276.2	573.3	11.5
Average heat value (Btu per cubic foot)	1,010	1.053	1.041	.3

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Florida				
Sulfur Dioxide				
Coal	416	412	240	-5.9
Petroleum	227	310	213	7
Natural Gas	*	*	*	7.3
Other	32	14	15	-8.1
Total	676	736	468	-4.0
Nitrogen Oxide				
Coal	231	191	155	-4.4
Petroleum	43	94	62	4.1
Gas	31	35	24	-2.5
Other	11	12	17	4.3
Total	316	332	257	-2.3
Carbon Dioxide				
Coal	59,171	67,260	65,078	1.1
Petroleum	27,847	34,397	31,166	1.3
Gas	12,939	19,439	30,220	9.9
Geothermal	_	_	_	NM
Other	588	592	2,333	16.5
Total	100,545	121,687	128,796	2.8

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Florida							
Retail Sales (thousand megawatthours)							
Residential	80,595	95,768	112,650	3.8	50.5	51.1	51.8
Commercial	57,447	67,346	85,257	4.5	36.0	35.9	39.2
Industrial	16,513	18,448	19,375	1.8	10.3	9.8	8.9
Other	4,989	5,792	NA	NM	3.1	3.1	NA
Transportation	NA	NA	97	NM	NA	NA	*
Total	159,544	187,355	217,379	3.5	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	6,271	7,557	9,636	4.9	56.5	57.6	57.4
Commercial	3,649	4,298	6,083	5.8	32.9	32.7	36.3
Industrial	848	887	1,048	2.4	7.6	6.8	6.3
Other	335	385	NA	NM	3.0	2.9	NA
Transportation	NA	NA	7	NM	NA	NA	*
Total	11,103	13,127	16,774	4.7	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.78	7.89	8.55	1.0	NA	NA	NA
Commercial	6.35	6.38	7.13	1.3	NA	NA	NA
Industrial	5.13	4.81	5.41	.6	NA	NA	NA
Other	6.72	6.64	NA	NM	NA	NA	NA
Transportation	NA	NA	7.21	NM	NA	NA	NA
Total	6.96	7.01	7.72	1.2	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	Service Pr		Other 1			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Florida								
Number of Entities	5	32	NA	16	1	NA	NA	54
Number of Retail Customers	6,649,226	1,195,476	NA	887,981	83	NA	NA	8,732,766
Retail Sales (thousand megawatthours)	167,146	33,826	NA	16,399	7	NA	NA	217,379
Percentage of Retail Sales	76.89	15.56	NA	7.54	*	NA	NA	100.00
Revenue from Retail Sales (million dollars)	13,028	2,429	NA	1,317	*	NA	NA	16,774
Percentage of Revenue	77.67	14.48	NA	7.85	*	NA	NA	100.00
Average Retail Price (cents/kWh)	7.79	7.18	NA	8.03	6.38	NA	NA	7.72

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Georgia		
NERC Region(s)		SERC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	34,815	7
Electric Utilities	24,804	3
Independent Power Producers & Combined Heat and Power	10,011	10
Net Generation (megawatthours)	124,076,834	11
Electric Utilities	115,755,114	5
Independent Power Producers & Combined Heat and Power	8,321,720	29
Emissions (thousand metric tons)		
Sulfur Dioxide	586	5
Nitrogen Oxide	121	14
Carbon Dioxide	79,356	10
Sulfur Dioxide (lbs/MWh)	10.4	7
Nitrogen Oxide (lbs/MWh)	2.2	33
Carbon Dioxide (lbs/MWh)	1,410	24
Total Retail Sales (megawatthours)	123,676,657	8
Full Service Provider Sales (megawatthours)	123,676,657	6
Direct Use (megawatthours)	5,556,906	6
Average Retail Price (cents/kWh)	6.32	32

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources Operating Company		Net Summer Capability (MW)
Georgia			
1. Scherer	Petroleum, Coal	Georgia Power Co	3,430
2. Bowen	Petroleum, Coal	Georgia Power Co	3,254
3. Vogtle	Nuclear	Georgia Power Co	2,301
4. Wansley	Petroleum, Coal	Georgia Power Co	1,827
5. Edwin I Hatch	Nuclear	Georgia Power Co	1,739
6. Harllee Branch	Petroleum, Coal	Georgia Power Co	1,607
7. Yates	Petroleum, Gas, Coal	Georgia Power Co	1,295
8. Murray Energy Facility	Gas	Duke Energy North Amer-Murray	1,244
9. Wansley	Gas	Southern Power Co	1,066
10. Tenaska Georgia Generation Facility	Gas, Petroleum	Tenaska Georgia Partners LP	933

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Georgia						
Georgia Power Co Savannah Electric & Power Co	Investor-Owned Investor-Owned	75,018,318	21,778,582	27,356,003	25,703,421	180,312
3. Jackson Electric Member Corp	Cooperative	4,186,501 3,895,718	1,738,489 2,240,198	1,587,662 1,165,344	860,350 490,176	0
Cobb Electric Membership Corp North Georgia Elec Member Corp	Cooperative Cooperative	3,334,246 2,542,727	2,069,353 1,348,285	1,060,318 468,679	204,575 725,763	0
Total Sales, Top Five Providers Percent of Total State Sales	-	88,977,510 72	29,174,907 61	31,638,006 78	27,984,285 80	180,312 100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
eorgia								
Electric Utilities	22,038	23,391	24,804	1.3	94.1	93.2	71.2	
Coal	13,164	13,540	13,331	.1	56.2	54.0	38.3	
Petroleum	1,057	1,018	991	7	4.5	4.1	2.8	
Natural Gas	33	35	1,721	55.2	.1	.1	4.9	
Dual Fired	1,092	1,392	1,170	.8	4.7	5.5	3.4	
Nuclear	3,840	3,947	4,040	.6	16.4	15.7	11.6	
Hydroelectric	2,029	2,335	2,097	.4	8.7	9.3	6.0	
Pumped Storage	823	1,124	1,454	6.5	3.5	4.5	4.2	
Independent Power Producers and Combined								
Heat and Power	1,392	1,692	10,011	24.5	5.9	6.7	28.8	
Coal	64	51	317	19.5	.3	.2	.9	
Petroleum	197	189	307	5.1	.8	.8	.9	
Natural Gas	27	305	5,364	80.0	.1	1.2	15.4	
Dual Fired	397	389	3,613	27.8	1.7	1.6	10.4	
Hydroelectric	13	11	11	-1.8	.1	*	>	
Other Renewables	694	747	399	-6.0	3.0	3.0	1.1	
Total Electric Industry	23,431	25,086	34,815	4.5	100.0	100.0	100.0	
Coal	13,228	13,591	13,648	.3	56.5	54.2	39.2	
Petroleum	1,253	1,207	1,297	.4	5.3	4.8	3.7	
Natural Gas	61	340	7,084	69.6	.3	1.4	20.3	
Dual Fired	1,489	1,782	4,784	13.8	6.4	7.1	13.7	
Nuclear	3,840	3,947	4,040	.6	16.4	15.7	11.6	
Hydroelectric	2,043	2,347	2,109	.4	8.7	9.4	6.	
Other Renewables	694	748	399	-6.0	3.0	3.0	1.1	
Pumped Storage	823	1,124	1,454	6.5	3.5	4.5	4.3	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
eorgia								
Electric Utilities	98,752,712	108,716,930	115,755,114	1.8	94.6	94.3	93.3	
Coal.	64,727,519	69,871,150	77,858,022	2.1	62.0	60.6	62.8	
Petroleum	161,235	670,924	278,618	6.3	.2	.6	.2	
Natural Gas	79,854	1,768,783	890,600	30.7	.1	1.5	.7	
Nuclear	28,927,090	31,380,401	33,256,649	1.6	27.7	27.2	26.8	
Hydroelectric	4,278,558	5,198,370	4,107,318	5	4.1	4.5	3.3	
Pumped Storage	578,456	-172,698	-636,093	NM	.6	1	5	
Independent Power Producers and Combined								
Heat and Power	5,603,697	6,606,776	8,321,720	4.5	5.4	5.7	6.7	
Coal	971,233	1,006,902	780,467	-2.4	.9	.9	.6	
Petroleum	837,044	900,267	915,441	1.0	.8	.8	.7	
Natural Gas	554,097	1,524,357	3,386,391	22.3	.5	1.3	2.7	
Hydroelectric	52.877	36,151	32,952	-5.1	.1	*		
Other Renewables	3,188,446	3,132,418	3,206,469	.1	3.1	2.7	2.6	
Other	0	6,681	0	NM	.0	*	.0	
Total Electric Industry	104,356,409	115,323,706	124,076,834	1.9	100.0	100.0	100.0	
Coal	65,698,752	70,878,052	78,638,489	2.0	63.0	61.5	63.4	
Petroleum	998.279	1,571,191	1,194,059	2.0	1.0	1.4	1.0	
Natural Gas	633,951	3,293,140	4.276,991	23.6	.6	2.9	3.4	
Nuclear	28,927,090	31,380,401	33,256,649	1.6	27.7	27.2	26.8	
Hydroelectric	4,331,435	5,234,521	4,140,270	5	4.2	4.5	3.3	
Other Renewables	3,188,446	3,132,418	3,206,469	.1	3.1	2.7	2.0	
Pumped Storage	578,456	-172,698	-636,093	NM	.6	1	5	
Other	0	6,681	0	NM	.0	*	.(

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Georgia				
Coal (cents per million Btu)	169.1	154.5	171.9	0.2
Average heat value (Btu per pound)	11,774	11,750	11,668	1
Average sulfur Content (percent)	1.1	.8	.8	-2.8
Petroleum (cents per million Btu)	396.3	327.6	267.9	-4.3
Average heat value (Btu per gallon)	138,484	138,497	134,648	3
Average sulfur Content (percent)	.5	.5	4.3	27.2
Natural Gas (cents per million Btu)	320.8	316.0	571.7	6.6
Average heat value (Btu per cubic foot)	1,025	1.028	1.035	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Georgia				
Sulfur Dioxide				
Coal	528	475	517	-0.2
Petroleum	4	14	42	30.8
Natural Gas	_	*	*	NM
Other	33	21	27	-2.2
Total	564	510	586	.4
Nitrogen Oxide				
Coal	228	172	105	-8.2
Petroleum	4	4	5	2.3
Gas	2	5	2	3.0
Other	10	10	9	-1.1
Total	243	190	121	-7.5
Carbon Dioxide				
Coal	62,103	69,660	74,703	2.1
Petroleum	2,645	2,985	2,320	-1.4
Gas	888	2,793	2,175	10.5
Geothermal	_	_	_	NM
Other	_	17	159	NM
Total	65,636	75,455	79,356	2.1

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Percentage Share			
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Georgia								
Retail Sales (thousand megawatthours)								
Residential	32,735	41,519	48,174	4.4	36.4	37.5	38.9	
Commercial	26,161	32,766	40,554	5.0	29.1	29.6	32.8	
Industrial	29,942	35,077	34,768	1.7	33.3	31.7	28.1	
Other	1,075	1,358	NA	NM	1.2	1.2	NA	
Transportation	NA	NA	180	NM	NA	NA	.1	
Total	89,913	110,720	123,677	3.6	100.0	100.0	100.0	
Retail Revenue (million dollars)								
Residential	2,527	3,185	3,711	4.4	42.8	44.9	47.5	
Commercial	1,918	2,297	2,699	3.9	32.5	32.4	34.5	
Industrial	1,368	1,483	1,397	.2	23.2	20.9	17.9	
Other	94	122	NA	NM	1.6	1.7	NA	
Transportation	NA	NA	9	NM	NA	NA	.1	
Total	5,907	7,087	7,816	3.2	100.0	100.0	100.0	
Average Retail Price (cents/kWh)								
Residential	7.72	7.67	7.70	*	NA	NA	NA	
Commercial	7.33	7.01	6.66	-1.1	NA	NA	NA	
Industrial	4.57	4.23	4.02	-1.4	NA	NA	NA	
Other	8.71	8.99	NA	NM	NA	NA	NA	
Transportation	NA	NA	4.81	NM	NA	NA	NA	
Total	6.57	6.40	6.32	4	NA	NA	NA	

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other I				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Georgia								
Number of Entities	2	53	NA	43	NA	NA	NA	98
Number of Retail Customers	2,158,412	329,152	NA	1,668,488	NA	NA	NA	4,156,052
Retail Sales (thousand megawatthours)	79,205	11,494	NA	32,978	NA	NA	NA	123,677
Percentage of Retail Sales	64.04	9.29	NA	26.66	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	4,608	753	NA	2,455	NA	NA	NA	7,816
Percentage of Revenue	58.96	9.64	NA	31.41	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	5.82	6.55	NA	7.44	NA	NA	NA	6.32

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Hawaii		
NERC Region(s)		
Primary Energy Source		Petroleum
Net Summer Capability (megawatts)	2,268	47
Electric Utilities	1,624	41
Independent Power Producers & Combined Heat and Power	644	43
Net Generation (megawatthours)	10,976,371	44
Electric Utilities	6,493,205	39
Independent Power Producers & Combined Heat and Power	4,483,166	36
Emissions (thousand metric tons)		
Sulfur Dioxide	23	39
Nitrogen Oxide	13	42
Carbon Dioxide	8,545	42
Sulfur Dioxide (lbs/MWh)	4.6	24
Nitrogen Oxide (lbs/MWh)	2.6	27
Carbon Dioxide (lbs/MWh)	1,716	17
Total Retail Sales (megawatthours)	10,390,836	47
Full Service Provider Sales (megawatthours)	10,390,836	44
Direct Use (megawatthours)	480,116	36
Average Retail Price (cents/kWh)	14.47	1

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Hawaii			
1. Kahe	Petroleum	Hawaiian Electric Co Inc	582
2. Waiau	Petroleum	Hawaiian Electric Co Inc	457
3. Maalaea	Petroleum	Maui Electric Co Ltd	190
4. AES Hawaii	Petroleum, Other, Coal	AES Hawaii Inc	180
5. Kalaeola Cogen Plant	Petroleum	Kalaeloa Partners LP	180
6. Honolulu	Petroleum	Hawaiian Electric Co Inc	100
7. Port Allen	Petroleum	Kauai Island Utility Cooperative	96
8. Hamakua Energy Plant	Other	Hamakua Energy Partners LP	61
9. H Power	Petroleum, Other	Honolulu Resource Recovery Venture	60
10. Hawaiian Comm & Sugar Puunene Mill	Petroleum, Coal, Other	Hawaiian Com & Sugar Co Ltd	46

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Hawaii						
Hawaiian Electric Co Inc	Investor-Owned	7,522,230	2,066,522	2,401,376	3,054,332	0
2. Maui Electric Co Ltd	Investor-Owned	1,206,719	419,511	394,431	392,777	0
3. Hawaii Electric Light Co Inc	Investor-Owned	1,046,147	389,874	426,906	229,367	0
4. Kauai Island Utility Coop	Cooperative	431,314	151,673	118,269	161,372	0
Total Sales, Top Five Providers	-	10,206,410	3,027,580	3,340,982	3,837,848	0
Percent of Total State Sales		98	100	95	100	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual]	Percentage Share	•
Energy Source	1994 1998 2003 3		Growth Rate 1994-2003 (Percent)	1994	1998	2003	
awaii							
Electric Utilities	1,601	1,616	1,624	0.2	67.6	68.9	71.6
Petroleum	1,598	1,594	1,620	.2	67.5	68.0	71.4
Natural Gas	0	18	0	NM	.0	.8	.0
Hydroelectric	3	4	2	-4.4	.1	.2	.1
Other Renewables	0	0	2	NM	.0	.0	.1
Independent Power Producers and Combined							
Heat and Power	766	729	644	-1.9	32.4	31.1	28.4
Coal	213	213	202	6	9.0	9.1	8.9
Petroleum	276	276	212	-2.9	11.7	11.8	9.3
Natural Gas	0	0	50	NM	.0	.0	2.2
Other Gases	8	8	9	1.3	.3	.3	.4
Hydroelectric	24	25	20	-2.0	1.0	1.1	.9
Other Renewables	245	207	151	-5.2	10.4	8.8	6.7
Total Electric Industry	2,367	2,344	2,268	5	100.0	100.0	100.0
Coal	213	213	202	6	9.0	9.1	8.9
Petroleum	1,874	1,870	1,832	3	79.2	79.8	80.8
Natural Gas	0	18	50	NM	.0	.8	2.2
Other Gases	8	8	9	1.3	.3	.3	.4
Hydroelectric	27	28	22	-2.3	1.1	1.2	1.0
Other Renewables	245	207	153	-5.1	10.4	8.8	6.7

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	I	Percentage Shar	e
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Iawaii							
Electric Utilities	6,055,087	6,301,169	6,493,205	0.8	59.9	61.6	59.2
Petroleum	6,036,282	6,287,107	6,489,565	.8	59.7	61.5	59.1
Hydroelectric	18,805	13,750	2,078	-21.7	.2	.1	*
Other Renewables	0	312	1,562	NM	.0	*	*
Independent Power Producers and Combined							
Heat and Power	4,053,815	3,926,913	4,483,167	1.1	40.1	38.4	40.8
Coal	1,326,742	1,434,868	1,644,137	2.4	13.1	14.0	15.0
Petroleum	1,604,631	1,563,961	2,012,985	2.6	15.9	15.3	18.3
Other Gases	65,719	60,443	40,251	-5.3	.6	.6	.4
Hydroelectric	120,621	107,523	88,427	-3.4	1.2	1.1	.8
Other Renewables	936,102	760,118	695,204	-3.3	9.3	7.4	6.3
Other	0	0	2,162	NM	.0	.0	1
Total Electric Industry	10,108,902	10,228,082	10,976,371	.9	100.0	100.0	100.0
Coal	1,326,742	1,434,868	1,644,137	2.4	13.1	14.0	15.0
Petroleum	7,640,913	7,851,068	8,502,550	1.2	75.6	76.8	77.5
Other Gases	65,719	60,443	40,251	-5.3	.6	.6	.4
Hydroelectric	139,426	121,273	90,505	-4.7	1.4	1.2	.8
Other Renewables	936,102	760,430	696,766	-3.2	9.3	7.4	6.3
Other	0	0	2,162	NM	.0	.0	:

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Hawaii				
Coal (cents per million Btu)	0.0	0.0	W	W
Average heat value (Btu per pound)	0	0	11,422	NM
Average sulfur Content (percent)	.0	.0	.4	NM
Petroleum (cents per million Btu)	271.2	261.5	W	W
Average heat value (Btu per gallon)	149,700	149,205	140,582	-0.7
Average sulfur Content (percent)	.4	.4	.4	4

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Hawaii				
Sulfur Dioxide				
Coal	3	5	1	-9.9
Petroleum	17	23	22	2.4
Natural Gas	_	_	_	NM
Other	*	*	*	3.2
Total	21	28	23	1.1
Nitrogen Oxide				
Coal	5	6	2	-12.0
Petroleum	9	9	10	.5
Gas	_	_	_	NM
Other	1	1	2	9.5
Total	15	16	13	-1.9
Carbon Dioxide				
Coal	1,354	1,478	1,699	2.6
Petroleum	6,367	6,584	6,633	.5
Gas			_	NM
Geothermal	5	6	5	5
Other	65	59	209	13.9
Total	7,790	8,127	8,545	1.0

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Pe	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Hawaii							
Retail Sales (thousand megawatthours)							
Residential	2,557	2,641	3,028	1.9	28.6	28.5	29.1
Commercial	2,543	2,776	3,517	3.7	28.4	30.0	33.8
Industrial	3,791	3,787	3,846	.2	42.4	40.9	37.0
Other	58	57	NA	NM	.6	.6	NA
Total	8,948	9,261	10,391	1.7	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	318	365	507	5.3	33.3	34.1	33.7
Commercial	297	342	528	6.6	31.1	32.0	35.1
Industrial	334	357	469	3.8	34.9	33.4	31.2
Other	7	7	NA	NM	.7	.6	NA
Total	956	1,070	1,504	5.2	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	12.45	13.82	16.73	3.3	NA	NA	NA
Commercial	11.67	12.31	15.02	2.8	NA	NA	NA
Industrial	8.82	9.41	12.20	3.7	NA	NA	NA
Other	11.21	12.28	NA	NM	NA	NA	NA
Total	10.68	11.56	14.47	3.4	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Fi	ıll Service Pr		Other 1			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Hawaii								
Number of Entities	3	NA	NA	1	3	NA	NA	7
Number of Retail Customers	415,208	NA	NA	32,361	15	NA	NA	447,584
Retail Sales (thousand megawatthours)	9,775	NA	NA	431	184	NA	NA	10,391
Percentage of Retail Sales	94.07	NA	NA	4.15	1.77	NA	NA	100.00
Revenue from Retail Sales (million dollars)	1,388	NA	NA	97	19	NA	NA	1,504
Percentage of Revenue	92.28	NA	NA	6.44	1.28	NA	NA	100.00
Average Retail Price (cents/kWh)	14.20	NA	NA	22.45	10.46	NA	NA	14.47

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
daho		
NERC Region(s)		WECC
Primary Energy Source		Hydro
Net Summer Capability (megawatts)	3,002	45
Electric Utilities	2,438	38
Independent Power Producers & Combined Heat and Power	564	44
Net Generation (megawatthours)	10,422,935	45
Electric Utilities	7,732,812	38
Independent Power Producers & Combined Heat and Power	2,690,123	39
Emissions (thousand metric tons)		
Sulfur Dioxide	6	47
Nitrogen Oxide	3	48
Carbon Dioxide	1,103	49
Sulfur Dioxide (lbs/MWh)	1.4	45
Nitrogen Oxide (lbs/MWh)	.5	48
Carbon Dioxide (lbs/MWh)	233	50
Total Retail Sales (megawatthours)	21,218,685	38
Full Service Provider Sales (megawatthours)	21,218,685	38
Direct Use (megawatthours)	710,470	31
Average Retail Price (cents/kWh)	5.22	48

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Idaho			
1. Brownlee	Hydro	Idaho Power Co	562
2. Dworshak	Hydro	USCE-North Pacific Division	460
3. Cabinet Gorge	Hydro	Avista Corporation	271
4. Rathdrum Power LLC	Gas	Rathdrum Operating Services Co., Inc.	248
5. Palisades	Hydro	U S Bureau of Reclamation	176
6. Rathdrum	Gas	Avista Corporation	136
7. C J Strike	Hydro	Idaho Power Co	89
8. Bliss	Hydro	Idaho Power Co	80
9. Evander Andrews Power Complex	Gas	Idaho Power Co	76
10. Lucky Peak Power Plant Project	Hydro	Boise-Kuna Irrigation District	75

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Idaho						
I. Idaho Power Co PacifiCorp	Investor-Owned Investor-Owned	12,351,079 3,280,360	4,238,675 585,685	3,361,557 369,488	4,750,847 2,325,187	0
3. Avista Corporation	Investor-Owned	2,924,041	1,034,089	916,427	973,525	0
4. Idaho Falls City of	Public	609,354	267,737	294,047	47,570	0
5. Kootenai Electric Coop Inc	Cooperative	311,622	213,825	83,056	14,741	0
Total Sales, Top Five Providers		19,476,456	6,340,011	5,024,575	8,111,870	0
Percent of Total State Sales		92	89	92	94	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	1	Percentage Share	
Energy Source	1994 1998 2003 Growth Rate 1994-2003 (Percent)		1994	1998	2003		
laho							
Electric Utilities	2,500	2,577	2,438	-0.3	85.9	85.6	81.2
Petroleum	6	6	5	-2.0	.2	.2	.2
Natural Gas	136	136	212	5.1	4.7	4.5	7.1
Hydroelectric	2,358	2,435	2,221	7	81.1	80.9	74.0
Independent Power Producers and Combined							
Heat and Power	410	434	564	3.6	14.1	14.4	18.8
Coal	17	18	17	.0	.6	.6	.6
Natural Gas	0	18	269	NM	.0	.6	9.0
Hydroelectric	247	252	193	-2.7	8.5	8.4	6.4
Other Renewables	131	131	70	-6.7	4.5	4.4	2.3
Other	15	15	15	.0	.5	.5	.5
Total Electric Industry	2,909	3,009	3,002	.3	100.0	100.0	100.0
Coal	17	18	17	.0	.6	.6	.6
Petroleum	6	6	5	-2.0	.2	.2	.2
Natural Gas	136	154	481	15.1	4.7	5.1	16.0
Hydroelectric	2,605	2,686	2,414	8	89.5	89.3	80.4
Other Renewables	130	130	70	-6.6	4.5	4.3	2.3
Other	15	15	15	.0	.5	.5	.5

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	I	Percentage Shar	e
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
daho							
Electric Utilities	7,303,193	11,978,079	7,732,812	0.6	83.7	86.1	74.2
Petroleum	31	253	116	15.8	.0	*	*
Natural Gas	0	0	61,229	NM	.0	.0	.6
Hydroelectric	7,303,162	11,977,826	7,671,467	.5	83.7	86.1	73.6
Independent Power Producers and Combined							
Heat and Power	1,423,604	1,930,594	2,690,124	7.3	16.3	13.9	25.8
Coal	38,038	48,120	90,290	10.1	.4	.3	.9
Petroleum	34	372	0	NM	.0	*	.0
Natural Gas	159,061	337,152	1,313,591	26.4	1.8	2.4	12.6
Hydroelectric	612,991	957,724	682,567	1.2	7.0	6.9	6.5
Other Renewables	528,342	503,712	540,953	.3	6.1	3.6	5.2
Other	85,138	83,514	62,722	-3.3	1.0	.6	.6
Total Electric Industry	8,726,797	13,908,673	10,422,935	2.0	100.0	100.0	100.0
Coal	38,038	48,120	90,290	10.1	.4	.3	.9
Petroleum	65	625	116	6.6	*	*	*
Natural Gas	159,061	337,152	1,374,820	27.1	1.8	2.4	13.2
Hydroelectric	7,916,153	12,935,550	8,354,034	.6	90.7	93.0	80.1
Other Renewables	528,342	503,712	540,953	.3	6.1	3.6	5.2
Other	85,138	83,514	62,722	-3.3	1.0	.6	.6

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Idaho				
Natural Gas (cents per million Btu)	0.0	0.0 0	W 1,018	W NM

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Idaho				
Sulfur Dioxide				
Coal	5	6	3	-3.7
Petroleum	_	*	_	NM
Natural Gas	_	_	_	NM
Other	3	3	3	7
Total	8	9	6	-2.4
Nitrogen Oxide				
Coal	1	2	1	8
Petroleum	_	_	_	NM
Gas	1	1	*	-4.2
Other	1	1	1	6
Total	3	4	3	-1.4
Carbon Dioxide				
Coal	284	398	498	6.4
Petroleum	*	1	*	-4.6
Gas	344	527	605	6.5
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	628	927	1,103	6.5

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

		1998	2003	Annual Growth Rate 1994-2003 (Percent)	Percentage Share		
Sector	1994				1994	1998	2003
Idaho							
Retail Sales (thousand megawatthours)							
Residential	6,222	6,610	7,090	1.5	31.3	29.9	33.4
Commercial	5,638	6,005	5,466	3	28.4	27.2	25.8
Industrial	7,647	9,193	8,663	1.4	38.5	41.6	40.8
Other	373	268	NA	NM	1.9	1.2	NA
Total	19,879	22,077	21,219	.7	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	317	349	443	3.8	39.8	39.2	40.0
Commercial	246	261	304	2.4	30.9	29.3	27.5
Industrial	216	269	360	5.8	27.1	30.2	32.5
Other	17	12	NA	NM	2.1	1.3	NA
Total	796	891	1,107	3.7	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	5.09	5.28	6.24	2.3	NA	NA	NA
Commercial	4.37	4.34	5.56	2.7	NA	NA	NA
Industrial	2.82	2.77	4.16	4.4	NA	NA	NA
Other	4.64	4.59	NA	NM	NA	NA	NA
Total	4.00	4.02	5.22	3.0	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

Item	Full Service Providers						Other Providers		
	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total	
Idaho									
Number of Entities	4	11	NA	16	1	NA	NA	32	
Number of Retail Customers	577,986	39,497	NA	69,850	1	NA	NA	687,334	
Retail Sales (thousand megawatthours)	18,556	1,033	NA	1,625	5	NA	NA	21,219	
Percentage of Retail Sales	87.45	4.87	NA	7.66	.02	NA	NA	100.00	
Revenue from Retail Sales (million dollars)	941	66	NA	100	*	NA	NA	1,107	
Percentage of Revenue	85.04	5.92	NA	9.01	.02	NA	NA	100.00	
Average Retail Price (cents/kWh)	5.07	6.35	NA	6.14	5.14	NA	NA	5.22	

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Illinois		
NERC Region(s)		MAIN/MAPP
Primary Energy Source		Nuclear
Net Summer Capability (megawatts)	45,541	4
Electric Utilities	3,007	36
Independent Power Producers & Combined Heat and Power	42,536	2
Net Generation (megawatthours)	189,055,260	5
Electric Utilities	9,563,746	36
Independent Power Producers & Combined Heat and Power	179,491,514	2
Emissions (thousand metric tons)		
Sulfur Dioxide	372	11
Nitrogen Oxide	144	9
Carbon Dioxide	94,941	6
Sulfur Dioxide (lbs/MWh)	4.3	28
Nitrogen Oxide (lbs/MWh)	1.7	38
Carbon Dioxide (lbs/MWh)	1,107	37
Total Retail Sales (megawatthours)	136,247,891	7
Full Service Provider Sales (megawatthours)	115,070,513	8
Deregulated Sales (megawatthours)	21,177,378	4
Direct Use (megawatthours)	4,275,912	10
Average Retail Price (cents/kWh)	6.86	21

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Illinois			
1. Collins	Gas, Petroleum	Midwest Generations EME LLC	2,671
2. Braidwood Generation Station	Nuclear	Exelon Generation Co LLC	2,362
3. Byron Generating Station	Nuclear	Exelon Generation Co LLC	2,356
4. LaSalle Generating Station	Nuclear	Exelon Generation Co LLC	2,293
5. Baldwin Energy Complex	Petroleum, Other, Coal	Dynegy Midwest Generation Inc	1,761
6. Quad Cities Generating Station	Nuclear	Exelon Generation Co LLC	1,728
7. Dresden Generating Station	Nuclear	Exelon Generation Co LLC	1,700
8. Powerton	Gas, Coal	Midwest Generations EME LLC	1,538
9. Elwood Energy LLC	Gas	Dominion Elwood Services Co	1,350
10. Kincaid Generation, L.L.C.	Gas, Coal	Dominion Energy Services Co	1,168

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Illinois						
Commonwealth Edison Co Illinois Power Co Central Illinois Light Co	Investor-Owned Investor-Owned Power Marketer	68,384,237 16,217,433 9,573,886	26,205,407 5,309,031 1,891,968	28,575,395 4,785,609 2,189,804	13,119,486 6,122,793 5,492,114	483,949 0
4. Central Illinois Pub Serv Co	Power Marketer Power Marketer	7,570,504 5,528,606 107,274,666 79	2,987,422 0 36,393,828 84	2,393,818 1,343,133 39,287,759	2,189,264 4,185,473 31,109,130 72	0 0 483,949 100

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual Growth Rate 1994-2003 (Percent)	Percentage Share		
Energy Source	1994	1998	2003		1994	1998	2003
llinois							
Electric Utilities	32,952	30,366	3,007	-23.4	98.0	93.5	6.6
Coal	15,090	14,250	1,866	-20.7	44.9	43.9	4.1
Petroleum	1,951	1,227	331	-17.9	5.8	3.8	.7
Natural Gas	2,538	3,687	127	-28.3	7.5	11.4	.3
Dual Fired	752	660	671	-1.3	2.2	2.0	1.5
Nuclear	12,609	10,529	0	NM	37.5	32.4	.0
Hydroelectric	12	13	12	.0	*	*	*
Independent Power Producers and Combined							
Heat and Power	689	2,108	42,536	58.1	2.0	6.5	93.4
Coal	357	1,643	13,795	50.1	1.1	5.1	30.3
Petroleum	7	6	915	71.8	*	*	2.0
Natural Gas	171	222	12,163	60.6	.5	.7	26.7
Other Gases	50	45	40	-2.4	.1	.1	.1
Dual Fired	53	33	3,923	61.3	.2	.1	8.6
Nuclear	0	0	11,465	NM	.0	.0	25.2
Hydroelectric	18	21	21	1.7	.1	.1	*
Other Renewables	33	131	214	23.1	.1	.4	.5
Other	0	7	0	NM	.0	*	.0
Total Electric Industry	33,641	32,473	45,541	3.4	100.0	100.0	100.0
Coal	15,447	15,892	15,661	.2	45.9	48.9	34.4
Petroleum	1,958	1,234	1,246	-4.9	5.8	3.8	2.7
Natural Gas	2,709	3,908	12,289	18.3	8.1	12.0	27.0
Other Gases	50	45	40	-2.4	.1	.1	.1
Dual Fired	805	693	4,594	21.4	2.4	2.1	10.1
Nuclear	12,609	10,529	11,465	-1.1	37.5	32.4	25.2
Hydroelectric	30	34	33	1.1	.1	.1	.1
Other Renewables	33	131	213	23.0	.1	.4	.5
Other	0	7	0	NM	.0	*	.0

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

			2003	Annual	Percentage Share		
Energy Source	1994	1998		Growth Rate 1994-2003 (Percent)	1994	1998	2003
linois							
Electric Utilities	137,745,525	131,273,709	9,563,746	-25.6	97.5	94.8	5.1
Coal	61,213,625	70,306,091	9,390,702	-18.8	43.3	50.8	5.0
Petroleum	1,207,908	838,107	48,792	-30.0	.9	.6	3
Natural Gas	2,624,471	4,483,112	53,174	-35.2	1.9	3.2	3
Nuclear	72,654,499	55,595,668	0	NM	51.4	40.2	.(
Hydroelectric	45,022	50,731	71,078	5.2	*	*	:
Independent Power Producers and Combined							
Heat and Power	3,553,770	7.190.853	179,491,514	54.6	2.5	5.2	94.9
Coal	1,784,788	5,049,070	78,590,647	52.3	1.3	3.6	41.
Petroleum	35,548	24,314	1,072,125	46.0	*	*	
Natural Gas	1,108,583	1,041,230	3,849,288	14.8	.8	.8	2.
Other Gases	259,174	342,824	203,627	-2.6	.2	.2	
Nuclear	0	0	94,733,036	NM	.0	.0	50.
Hydroelectric	75,611	86,982	67,422	-1.3	.1	.1	:
Other Renewables	290,066	627,123	974,495	14.4	.2	.5	.:
Other	0	19,310	874	NM	.0	*	.(
Total Electric Industry	141,299,295	138,464,562	189,055,260	3.3	100.0	100.0	100.0
Coal.	62,998,413	75,355,161	87,981,349	3.8	44.6	54.4	46.
Petroleum	1,243,456	862,421	1,120,917	-1.1	.9	.6	
Natural Gas	3,733,054	5,524,342	3,902,462	.5	2.6	4.0	2.
Other Gases	259,174	342,824	203,627	-2.6	.2	.2	
Nuclear	72,654,499	55,595,668	94,733,036	3.0	51.4	40.2	50.
Hydroelectric	120,633	137,713	138,500	1.5	.1	.1	
Other Renewables	290,066	627,123	974,495	14.4	.2	.5	
Other	0	19,310	874	NM	.0	*	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Illinois				
Coal (cents per million Btu)	160.6	155.7	115.9	-3.6
Average heat value (Btu per pound)	10,181	9,700	9,176	-1.1
Average sulfur Content (percent)	1.5	1.1	.7	-8.4
Petroleum (cents per million Btu)	279.6	234.2	539.9	7.6
Average heat value (Btu per gallon)	148,945	130,831	147,876	1
Average sulfur Content (percent)	.6	1.5	.5	-3.1
Natural Gas (cents per million Btu)	200.0	220.7	567.4	12.3
Average heat value (Btu per cubic foot)	1,022	1,019	1,016	1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
llinois				
Sulfur Dioxide				
Coal	761	727	367	-7.8
Petroleum	11	16	4	-10.2
Natural Gas	*	*	*	1.6
Other	*	*	1	28.8
Total	772	743	372	-7.8
Nitrogen Oxide				
Coal	370	282	139	-10.3
Petroleum	2	1	2	5
Gas	7	9	3	-7.2
Other	2	3	1	-6.8
Total	380	294	144	-10.2
Carbon Dioxide				
Coal	67,782	80,733	90,896	3.3
Petroleum	1,427	1,279	1,110	-2.8
Gas	3,379	5,058	2,775	-2.2
Geothermal	_ ′	_ ′		NM
Other	_	46	160	NM
Total	72,588	87,116	94,941	3.0

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
llinois							
Retail Sales (thousand megawatthours)							
Residential	35,706	39,707	43,161	2.1	29.4	30.1	31.7
Commercial	35,663	39,792	49,561	3.7	29.3	30.2	36.4
Industrial	41,765	43,377	43,042	.3	34.4	32.9	31.6
Other	8,356	8,820	NA	NM	6.9	6.7	NA
Transportation	NA	NA	484	NM	NA	NA	.4
Total	121,490	131,697	136,248	1.3	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	3,564	3,910	3,616	.2	39.6	39.8	38.7
Commercial	2,739	3,093	3,618	3.1	30.4	31.5	38.7
Industrial	2,164	2,215	2,092	4	24.0	22.6	22.4
Other	541	600	NA	NM	6.0	6.1	NA
Transportation	NA	NA	28	NM	NA	NA	.3
Total	9,008	9,817	9,353	.4	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	9.98	9.85	8.38	-1.9	NA	NA	NA
Commercial	7.68	7.77	7.30	6	NA	NA	NA
Industrial	5.18	5.11	4.86	7	NA	NA	NA
Other	6.47	6.80	NA	NM	NA	NA	NA
Transportation	NA	NA	5.87	NM	NA	NA	NA
Total	7.41	7.46	6.86	8	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	Other P	roviders				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Illinois								
Number of Entities	9	41	NA	27	1	11	3	92
Number of Retail Customers	4,931,955	254,387	NA	258,814	1	12,642	NA	5,457,799
Retail Sales (thousand megawatthours)	103,502	6,483	NA	4,619	466	21,177	NA	136,248
Percentage of Retail Sales	75.97	4.76	NA	3.39	.34	15.54	NA	100.00
Revenue from Retail Sales (million dollars)	7,281	428	NA	412	14	851	366	9,353
Percentage of Revenue	77.85	4.58	NA	4.41	.15	9.10	3.91	100.00
Average Retail Price (cents/kWh)	7.04	6.61	NA	8.93	3.05	4.02	1.73	6.86

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Indiana		
NERC Region(s)		ECAR
Primary Energy Source		Coal
Net Summer Capability (megawatts)	25,640	14
Electric Utilities	21,015	10
Independent Power Producers & Combined Heat and Power	4,625	20
Net Generation (megawatthours)	124,888,217	10
Electric Utilities	112,395,725	6
Independent Power Producers & Combined Heat and Power	12,492,492	20
Emissions (thousand metric tons)		
Sulfur Dioxide	744	3
Nitrogen Oxide	248	4
Carbon Dioxide	116,590	5
Sulfur Dioxide (lbs/MWh)	13.1	2
Nitrogen Oxide (lbs/MWh)	4.4	6
Carbon Dioxide (lbs/MWh)	2,058	7
Total Retail Sales (megawatthours)	100,467,779	12
Full Service Provider Sales (megawatthours)	100,467,779	10
Direct Use (megawatthours)	4,755,661	7
Average Retail Price (cents/kWh)	5.37	47

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Sources Operating Company	
Indiana			
1. Gibson	Petroleum, Coal	PSI Energy Inc	3,131
2. Rockport	Petroleum, Coal	Indiana Michigan Power Co	2,600
3. R M Schahfer	Gas, Petroleum, Coal	Northern Indiana Pub Serv Co	1,780
4. AES Petersburg	Petroleum, Coal	Indianapolis Power & Light Co	1,702
5. Clifty Creek	Petroleum, Coal	Indiana-Kentucky Electric Corp	1,196
6. Cayuga	Gas, Petroleum, Coal	PSI Energy Inc	1,104
7. Harding Street	Gas, Petroleum, Coal	Indianapolis Power & Light Co	1,102
8. Merom	Petroleum, Coal	Hoosier Energy R E C Inc	1,000
9. Tanners Creek	Petroleum, Coal	Indiana Michigan Power Co	980
10. Wabash River	Petroleum, Gas, Coal	PSI Energy Inc	936

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Indiana						
1. PSI Energy Inc	Investor-Owned	27,014,573	8,286,086	7,335,162	11,393,325	0
2. Northern Indiana Pub Serv Co	Investor-Owned	15,815,917	3,122,471	3,704,882	8,972,159	16,405
3. Indiana Michigan Power Co	Investor-Owned	15,265,235	4,328,840	4,111,895	6,824,500	0
4. Indianapolis Power & Light Co	Investor-Owned	14,355,738	4,916,519	2,068,893	7,370,326	0
5. Southern Indiana Gas & Elec Co	Investor-Owned	5,297,928	1,441,706	1,439,337	2,416,885	0
Total Sales, Top Five Providers		77,749,391	22,095,622	18,660,169	36,977,195	16,405
Percent of Total State Sales		77	72	83	78	100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	1	Percentage Share	:
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
ndiana							
Electric Utilities	20,711	20,337	21,015	0.2	96.3	93.2	82.0
Coal	19,192	18,709	18,400	5	89.3	85.7	71.8
Petroleum	476	486	474	*	2.2	2.2	1.8
Natural Gas	172	297	1,392	26.2	.8	1.4	5.4
Dual Fired	802	786	690	-1.7	3.7	3.6	2.7
Hydroelectric	69	59	59	-1.7	.3	.3	.2
Independent Power Producers and Combined							
Heat and Power	794	1,486	4,625	21.6	3.7	6.8	18.0
Coal	205	767	1,416	24.0	1.0	3.5	5.5
Petroleum	9	9	9	.0	*	*	*
Natural Gas	138	119	2,484	37.9	.6	.5	9.7
Other Gases	325	480	512	5.2	1.5	2.2	2.0
Dual Fired.	111	94	185	5.8	.5	.4	.7
Other Renewables	6	17	19	13.7	*	.1	.1
Total Electric Industry	21,502	21,822	25,640	2.0	100.0	100.0	100.0
Coal	19,396	19,476	19,816	.2	90.2	89.2	77.3
Petroleum.	484	495	483	*	2.3	2.3	1.9
Natural Gas	310	415	3,876	32.4	1.4	1.9	15.1
Other Gases	325	480	512	5.2	1.5	2.2	2.0
Dual Fired	912	880	875	5	4.2	4.0	3.4
Hydroelectric	69	59	59	-1.7	.3	.3	.2
Other Renewables	6	17	19	13.7	*	.1	1

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	•
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
ndiana							
Electric Utilities	103,485,409	112,771,878	112,395,725	0.9	96.6	96.0	90.0
Coal	102,043,025	110,696,190	109,839,659	.8	95.2	94.2	87.9
Petroleum	209,379	821,530	407,648	7.7	.2	.7	.3
Natural Gas	826,138	775,490	1,724,465	8.5	.8	.7	1.4
Hydroelectric	406,867	478,668	423,953	.5	.4	.4	.3
Independent Power Producers and Combined							
Heat and Power	3,696,648	4,699,647	12,492,493	14.5	3.4	4.0	10.0
Coal	878,401	1,121,905	7,916,625	27.7	.8	1.0	6.3
Petroleum	156,703	255,571	47,639	-12.4	.1	.2	*
Natural Gas	683,033	1,301,664	1,324,970	7.6	.6	1.1	1.1
Other Gases	1,941,518	1,896,396	2,592,257	3.3	1.8	1.6	2.1
Other Renewables	36,993	124,111	134,030	15.4	*	.1	.1
Other	0	0	476,972	NM	.0	.0	.4
Total Electric Industry	107,182,057	117,471,525	124,888,217	1.7	100.0	100.0	100.0
Coal	102,921,426	111,818,095	117,756,284	1.5	96.0	95.2	94.3
Petroleum	366,082	1,077,101	455,287	2.5	.3	.9	.4
Natural Gas	1,509,171	2,077,154	3,049,435	8.1	1.4	1.8	2.4
Other Gases	1,941,518	1,896,396	2,592,257	3.3	1.8	1.6	2.1
Hydroelectric	406,867	478,668	423,953	.5	.4	.4	.3
Other Renewables	36,993	124,111	134,030	15.4	*	.1	.1
Other	0	0	476,972	NM	.0	.0	.4

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	10,535 10,517 1.8 1.6	2003	Annual Growth Rate 1994-2003 (Percent)	
ndiana				
Coal (cents per million Btu)	127.2	112.3	W	W
Average heat value (Btu per pound)	10,535	10,517	10,550	*
Average sulfur Content (percent)	1.8	1.6	1.5	-1.8
Petroleum (cents per million Btu)	389.9	184.4	W	W
Average heat value (Btu per gallon)	137,426	100,266	138,660	.1
Average sulfur Content (percent)	.2	2.6	2.3	31.2
Natural Gas (cents per million Btu)	265.9	280.5	615.9	9.8
Average heat value (Btu per cubic foot)	1,023	1,025	1,014	1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
ndiana				
Sulfur Dioxide				
Coal	1,138	868	741	-4.6
Petroleum	*	3	1	14.1
Natural Gas	*	*	*	8.0
Other	*	1	1	34.0
Total	1,138	872	744	-4.6
Nitrogen Oxide				
Coal	470	340	239	-7.2
Petroleum	1	1	*	-14.1
Gas	3	4	3	-2.1
Other	1	1	6	24.3
Total	474	346	248	-7.0
Carbon Dioxide				
Coal	100,353	109,302	114,014	1.4
Petroleum	649	1,619	497	-2.9
Gas	1,459	2,236	1,772	2.2
Geothermal	_	_	_	NM
Other	88	85	307	14.9
Total	102,550	113,242	116,590	1.4

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Pe	ercentage Shar	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Indiana							
Retail Sales (thousand megawatthours)							
Residential	25,048	27,334	30,726	2.3	29.9	29.7	30.6
Commercial	17,462	19,368	22,441	2.8	20.8	21.0	22.3
Industrial	40,763	44,848	47,284	1.7	48.6	48.7	47.1
Other	534	509	NA	NM	.6	.5	NA
Transportation	NA	NA	16	NM	NA	NA	*
Total	83,808	92,059	100,468	2.0	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,697	1,916	2,162	2.7	38.6	39.0	40.1
Commercial	1,033	1,177	1,374	3.2	23.5	23.9	25.5
Industrial	1,619	1,770	1,855	1.5	36.8	36.0	34.4
Other	48	50	NA	NM	1.1	1.0	NA
Transportation	NA	NA	1	NM	NA	NA	*
Total	4,397	4,914	5,393	2.3	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	6.78	7.01	7.04	.4	NA	NA	NA
Commercial	5.91	6.08	6.12	.4	NA	NA	NA
Industrial	3.97	3.95	3.92	1	NA	NA	NA
Other	9.02	9.83	NA	NM	NA	NA	NA
Transportation	NA	NA	8.36	NM	NA	NA	NA
Total	5.25	5.34	5.37	.3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Full Service Providers				Other 1		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Indiana								
Number of Entities	6	72	NA	41	NA	NA	NA	119
Number of Retail Customers	2,215,877	255,477	NA	494,708	NA	NA	NA	2,966,062
Retail Sales (thousand megawatthours)	82,368	7,543	NA	10,557	NA	NA	NA	100,468
Percentage of Retail Sales	81.98	7.51	NA	10.51	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	4,288	400	NA	705	NA	NA	NA	5,393
Percentage of Revenue	79.51	7.42	NA	13.07	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	5.21	5.31	NA	6.67	NA	NA	NA	5.37

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
lowa		
NERC Region(s)		MAPP
Primary Energy Source		Coal
Net Summer Capability (megawatts)	10,074	33
Electric Utilities	9,092	27
Independent Power Producers & Combined Heat and Power	982	39
Net Generation (megawatthours)	42,116,192	33
Electric Utilities	39,485,141	27
Independent Power Producers & Combined Heat and Power	2,631,051	40
Emissions (thousand metric tons)		
Sulfur Dioxide	139	21
Nitrogen Oxide	78	24
Carbon Dioxide	40,616	23
Sulfur Dioxide (lbs/MWh)	7.3	14
Nitrogen Oxide (lbs/MWh)	4.1	9
Carbon Dioxide (lbs/MWh)	2,126	4
Total Retail Sales (megawatthours)	41,207,284	31
Full Service Provider Sales (megawatthours)	41,207,284	31
Direct Use (megawatthours)	1,350,833	27
Average Retail Price (cents/kWh)	6.11	36

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Iowa			
1. George Neal North	Gas, Coal	MidAmerican Energy Co	950
2. Council Bluffs	Petroleum, Gas, Coal	MidAmerican Energy Co	823
3. Ottumwa	Petroleum, Coal	Interstate Power and Light Co	731
4. Louisa	Petroleum, Gas, Coal	MidAmerican Energy Co	700
5. George Neal South	Petroleum, Coal	MidAmerican Energy Co	644
6. Duane Arnold	Nuclear	Interstate Power and Light Co	562
7. Greater Des Moines	Gas	MidAmerican Energy Co	542
8. Lansing	Petroleum, Coal	Interstate Power and Light Co	330
9. Burlington	Gas, Coal	Interstate Power and Light Co	285
10. Archer Daniels Midland Cedar Rapids	Coal	Archer Daniels Midland Co	260

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Iowa						
MidAmerican Energy Co	Investor-Owned	16,372,304	4,678,734	5,450,310	6,243,260	0
2. Interstate Power and Light Co	Investor-Owned	14,368,220	3,761,671	3,373,987	7,232,562	0
3. Eastern Iowa Light & Power Coop	Cooperative	1,217,700	261,048	36,437	920,215	0
4. Muscatine City of	Public	818,064	96,134	172,091	549,839	0
5. Ames City of	Public	587,869	144,805	305,792	137,272	0
Total Sales, Top Five Providers		33,364,157	8,942,392	9,338,617	15,083,148	0
Percent of Total State Sales		81	70	80	90	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share			
Energy Source	1994 1998 2003		Growth Rate 1994-2003 (Percent)	1994	1998	2003			
wa									
Electric Utilities	8,217	8,367	9,092	1.1	95.2	95.9	90.3		
Coal	5,975	5,717	5,666	6	69.2	65.5	56.2		
Petroleum	512	662	779	4.8	5.9	7.6	7.7		
Natural Gas	139	133	640	18.5	1.6	1.5	6.4		
Dual Fired	951	988	1,202	2.6	11.0	11.3	11.9		
Nuclear	515	520	562	1.0	6.0	6.0	5.6		
Hydroelectric	125	131	136	.9	1.4	1.5	1.3		
Other Renewables	0	0	107	NM	.0	.0	1.1		
Other	0	216	0	NM	.0	2.5).		
Independent Power Producers and Combined									
Heat and Power	416	359	982	10.0	4.8	4.1	9.7		
Coal	259	275	420	5.5	3.0	3.2	4.2		
Petroleum	82	71	89	.9	.9	.8	4.2		
Natural Gas	0	0	5	NM	.0	.0			
Dual Fired	63	0	0	NM	.7	.0	(
	5	-	2	-9.7).		
Hydroelectric	3	5 8	466	-9.7 59.4	.1 .1	.1 1	4.0		
Other Renewables	,	0	400	39.4	.1	.1	4.0		
Total Electric Industry	8,634	8,728	10,074	1.7	100.0	100.0	100.0		
Coal	6,234	5,993	6,086	3	72.2	68.7	60.4		
Petroleum	594	733	868	4.3	6.9	8.4	8.6		
Natural Gas	140	133	645	18.5	1.6	1.5	6.4		
D 1E 1	1,014	988	1,202	1.9	11.7	11.3	11.9		
Dual Fired		520	562	1.0	6.0	6.0	5.0		
	515	520							
Nuclear	515 130	520 136	138	.7	1.5	1.6	1.4		
					1.5 .1	1.6 .1	1.4 5.3		

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share		
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
owa							
Electric Utilities	31,963,757	37,085,476	39,485,141	2.4	96.4	96.5	93.8
Coal	26,497,930	31,883,678	34,288,694	2.9	79.9	82.9	81.4
Petroleum	78,291	109,620	91,173	1.7	.2	.3	.2
Natural Gas	199,272	412,281	279,206	3.8	.6	1.1	.7
Nuclear	4,107,383	3,767,513	3,987,657	3	12.4	9.8	9.5
Hydroelectric	1,052,870	893,219	780,322	-3.3	3.2	2.3	1.9
Other Renewables	28,011	19,165	58,089	8.4	.1	*	.1
Independent Power Producers and Combined							
Heat and Power	1,203,249	1,363,313	2,631,051	9.1	3.6	3.5	6.2
Coal	952,962	1.116.293	1,531,251	5.4	2.9	2.9	3.6
Petroleum	23,499	6,923	10,162	-8.9	.1	*	*
Natural Gas	177,213	148,611	33,690	-16.8	.5	.4	.1
Hydroelectric	18,153	19,696	8,271	-8.4	.1	.1	*
Other Renewables	31,422	71,790	1,047,676	47.6	.1	.2	2.5
Total Electric Industry	33,167,006	38,448,789	42,116,192	2.7	100.0	100.0	100.0
Coal	27,450,892	32,999,971	35,819,945	3.0	82.8	85.8	85.0
Petroleum	101,790	116,543	101,335	*	.3	.3	.2
Natural Gas	376,485	560,892	312,896	-2.0	1.1	1.5	.7
Nuclear	4,107,383	3,767,513	3,987,657	3	12.4	9.8	9.5
Hydroelectric	1,071,023	912,915	788,593	-3.3	3.2	2.4	1.9
	59,433	. ,	, , , , , ,	38.4	.2	.2	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
owa				
Coal (cents per million Btu)	99.0	87.6	W	W
Average heat value (Btu per pound)	8,783	8,636	8,705	-0.1
Average sulfur Content (percent)	.6	.4	.4	-3.0
Petroleum (cents per million Btu)	143.6	141.2	634.6	17.9
Average heat value (Btu per gallon)	86,797	88,179	139,172	5.4
Average sulfur Content (percent)	4.6	4.1	*	-42.8
Natural Gas (cents per million Btu)	316.2	305.9	593.3	7.2
Average heat value (Btu per cubic foot)	1.006	1.003	1.004	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
lowa				
Sulfur Dioxide				
Coal	180	153	138	-3.0
Petroleum	11	7	1	-21.8
Natural Gas	_	_	_	NM
Other	*	*	*	-8.1
Total	191	160	139	-3.5
Nitrogen Oxide				
Coal	152	85	77	-7.3
Petroleum	1	*	*	-16.9
Gas	1	1	1	-6.4
Other	*	1	*	-3.9
Total	155	87	78	-7.3
Carbon Dioxide				
Coal	31,594	36,974	40,185	2.7
Petroleum	184	129	121	-4.5
Gas	775	518	295	-10.2
Geothermal	_	_	_	NM
Other	*	_	15	68.2
Total	32,553	37,622	40,616	2.5

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

	1994 1998		Annual	Percentage Share			
Sector		2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
lowa							
Retail Sales (thousand megawatthours)							
Residential	11,062	11,855	12,768	1.6	33.5	31.8	31.0
Commercial	7,477	8,034	11,637	5.0	22.6	21.5	28.2
Industrial	13,224	16,079	16,803	2.7	40.0	43.1	40.8
Other	1,276	1,350	NA	NM	3.9	3.6	NA
Total	33,039	37,318	41,207	2.5	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	895	993	1,094	2.3	45.7	44.0	43.4
Commercial	473	536	726	4.9	24.2	23.8	28.8
Industrial	513	641	699	3.5	26.2	28.4	27.8
Other	76	84	NA	NM	3.9	3.7	NA
Total	1,957	2,255	2,519	2.8	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	8.09	8.38	8.57	.6	NA	NA	NA
Commercial	6.32	6.67	6.24	1	NA	NA	NA
Industrial	3.88	3.99	4.16	.8	NA	NA	NA
Other	5.96	6.21	NA	NM	NA	NA	NA
Total	5.92	6.04	6.11	.3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr		Other 1			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Iowa								
Number of Entities	3	138	NA	44	1	NA	NA	186
Number of Retail Customers	1,068,855	202,844	NA	205,658	161	NA	NA	1,477,518
Retail Sales (thousand megawatthours)	30,834	4,961	NA	5,174	238	NA	NA	41,207
Percentage of Retail Sales	74.83	12.04	NA	12.56	.58	NA	NA	100.00
Revenue from Retail Sales (million dollars)	1,853	290	NA	362	14	NA	NA	2,519
Percentage of Revenue	73.56	11.53	NA	14.37	.55	NA	NA	100.00
Average Retail Price (cents/kWh)	6.01	5.85	NA	7.00	5.79	NA	NA	6.11

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Kansas		
NERC Region(s)		SPP/MAPP
Primary Energy Source		Coal
Net Summer Capability (megawatts)	10,877	31
Electric Utilities	10,731	21
Independent Power Producers & Combined Heat and Power	146	47
Net Generation (megawatthours)	46,567,560	31
Electric Utilities	46,155,505	21
Independent Power Producers & Combined Heat and Power	412,056	47
Emissions (thousand metric tons)		
Sulfur Dioxide	128	23
Nitrogen Oxide	86	19
Carbon Dioxide	38,463	26
Sulfur Dioxide (lbs/MWh)	6.1	19
Nitrogen Oxide (lbs/MWh)	4.1	10
Carbon Dioxide (lbs/MWh)	1,821	14
Total Retail Sales (megawatthours)	36,735,390	32
Full Service Provider Sales (megawatthours)	36,735,390	32
Direct Use (megawatthours)	62,101	49
Average Retail Price (cents/kWh)	6.35	30

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Plant Energy Sources Operat		Net Summer Capability (MW)
Kansas			·
1. Jeffrey Energy Center	Other, Petroleum, Coal	Westar Energy	2,213
2. La Cygne	Petroleum, Coal	Kansas City Power & Light Co	1,362
Wolf Creek Generating Station	Nuclear	Wolf Creek Nuclear Optg Corp	1,165
4. Gordon Evans Energy Center	Gas, Petroleum	Kansas Gas & Electric Co	836
5. Lawrence Energy Center	Gas, Coal	Westar Energy	567
6. Hutchinson Energy Center	Gas, Petroleum	Westar Energy	477
7. Holcomb	Gas, Coal	Sunflower Electric Power Corp	360
8. Murray Gill	Gas, Petroleum	Kansas Gas & Electric Co	322
9. Quindaro	Petroleum, Gas, Coal	Kansas City City of	316
10. West Gardner	Gas	Kansas City Power & Light Co	308

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Kansas						
1. Westar Energy	Investor-Owned	9,354,267	3,188,966	4,176,558	1,988,743	0
2. Kansas Gas & Electric Co	Investor-Owned	9,029,921	2,842,279	2,728,712	3,458,930	0
3. Kansas City Power & Light Co	Investor-Owned	5,842,912	2,598,208	2,861,868	382,836	0
4. Kansas City City of	Public	2,254,332	537,863	824,903	891,566	0
5. Aquila Inc	Investor-Owned	1,841,911	469,741	575,858	796,312	0
Total Sales, Top Five Providers		28,323,343	9,637,057	11,167,899	7,518,387	0
Percent of Total State Sales		77	76	81	72	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share	
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Kansas							
Electric Utilities	9,715	9,916	10,731	1.1	99.5	99.5	98.7
Coal	5,220	5,407	5,265	.1	53.5	54.3	48.4
Petroleum	212	214	277	3.0	2.2	2.1	2.5
Natural Gas	470	388	990	8.6	4.8	3.9	9.1
Dual Fired	2,653	2,743	3,032	1.5	27.2	27.5	27.9
Nuclear	1,160	1,164	1,165	*	11.9	11.7	10.7
Other Renewables	0	0	2	NM	.0	.0	*
Independent Power Producers and Combined							
Heat and Power	49	49	146	12.9	.5	.5	1.3
Petroleum	4	4	0	NM	*	*	.0
Natural Gas	1	41	27	44.2	*	.4	.2
Dual Fired	42	2	4	-23.0	.4	*	*
Hydroelectric	2	2	3	4.6	*	*	*
Other Renewables	0	0	112	NM	.0	.0	1.0
Total Electric Industry	9,763	9,964	10,877	1.2	100.0	100.0	100.0
Coal	5,220	5,407	5,265	.1	53.5	54.3	48.4
Petroleum	216	218	277	2.8	2.2	2.2	2.5
Natural Gas	471	428	1,017	8.9	4.8	4.3	9.3
Dual Fired	2,694	2,745	3,036	1.3	27.6	27.5	27.9
Nuclear	1,160	1,164	1,165	*	11.9	11.7	10.7
Hydroelectric	2	2	3	4.6	*	*	*
Other Renewables	0	0	114	NM	.0	.0	1.0

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual]	Percentage Shar	e
Energy Source	1994 1	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Cansas							
Electric Utilities	37,283,871	41,480,827	46,155,505	2.4	99.1	99.7	99.1
Coal	26,488,755	28,023,687	35,109,616	3.2	70.4	67.4	75.4
Petroleum	82,809	122,143	963,751	31.4	.2	.3	2.1
Natural Gas	2,183,250	2,924,279	1,190,819	-6.5	5.8	7.0	2.6
Nuclear	8,529,002	10,410,718	8,889,667	.5	22.7	25.0	19.1
Other Renewables	55	0	1,651	45.9	.0	.0	*
Independent Power Producers and Combined Heat and Power	335,998	104,401	412,056	2.3	.9	.3	.9
Petroleum	5,789	458	381	-26.1	*	*	*
Natural Gas	320,355	92,518	34,951	-21.8	.9	.2	.1
Hydroelectric	9,854	11,425	12,435	2.6	*	*	*
Other Renewables	0	0	364,288	NM	.0	.0	.8
Total Electric Industry	37,619,869	41,585,228	46,567,560	2.4	100.0	100.0	100.0
Coal	26,488,755	28,023,687	35,109,616	3.2	70.4	67.4	75.4
Petroleum	88,598	122,601	964,132	30.4	.2	.3	2.1
Natural Gas	2,503,605	3,016,797	1,225,770	-7.6	6.7	7.3	2.0
Nuclear	8,529,002	10,410,718	8,889,667	.5	22.7	25.0	19.1
Hydroelectric	9,854	11,425	12,435	2.6	*	*	2
Other Renewables	55	. 0	365,939	165.9	.0	.0.	.8

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Kansas				
Coal (cents per million Btu)	102.5	98.1	101.5	-0.1
Average heat value (Btu per pound)	8,708	8,696	8,619	1
Average sulfur Content (percent)	.5	.5	.5	2
Petroleum (cents per million Btu)	396.8	265.5	361.7	-1.0
Average heat value (Btu per gallon)	138,892	144,689	156,947	1.4
Average sulfur Content (percent)	.2	.5	1.6	26.6
Natural Gas (cents per million Btu)	192.1	213.7	529.6	11.9
Average heat value (Btu per cubic foot)	983	1.001	1.014	.4

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Kansas				
Sulfur Dioxide				
Coal	65	102	119	7.0
Petroleum	*	*	9	52.1
Natural Gas	*	*	_	NM
Other	_	_	_	NM
Total	65	102	128	7.8
Nitrogen Oxide				
Coal	142	68	82	-6.0
Petroleum	*	*	3	46.8
Gas	4	6	2	-10.4
Other	_	_	_	NM
Total	147	73	86	-5.8
Carbon Dioxide				
Coal	28,414	29,412	36,784	2.9
Petroleum	81	125	843	29.8
Gas	1,782	2,144	836	-8.1
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	30,276	31,681	38,463	2.7

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Pe	ercentage Shar	·e
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Kansas							
Retail Sales (thousand megawatthours)							
Residential	10,131	11,832	12,602	2.4	34.2	34.7	34.3
Commercial	10,111	12,073	13,751	3.5	34.1	35.4	37.4
Industrial	9,001	9,762	10,382	1.6	30.4	28.6	28.3
Other	371	473	NA	NM	1.3	1.4	NA
Total	29,614	34,140	36,735	2.4	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	799	905	971	2.2	40.8	42.2	41.6
Commercial	674	766	882	3.0	34.4	35.7	37.8
Industrial	444	435	479	.8	22.7	20.3	20.5
Other	41	38	NA	NM	2.1	1.8	NA
Total	1,957	2,145	2,333	2.0	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.89	7.65	7.71	3	NA	NA	NA
Commercial	6.66	6.34	6.42	4	NA	NA	NA
Industrial	4.93	4.46	4.61	7	NA	NA	NA
Other	10.94	7.96	NA	NM	NA	NA	NA
Total	6.61	6.28	6.35	4	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other Providers				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Kansas								
Number of Entities	6	119	NA	29	NA	NA	NA	154
Number of Retail Customers	952,229	236,715	NA	212,001	NA	NA	NA	1,400,945
Retail Sales (thousand megawatthours)	26,335	6,483	NA	3,918	NA	NA	NA	36,735
Percentage of Retail Sales	71.69	17.65	NA	10.66	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	1,582	412	NA	338	NA	NA	NA	2,333
Percentage of Revenue	67.82	17.68	NA	14.50	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	6.01	6.36	NA	8.63	NA	NA	NA	6.35

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Kentucky		
NERC Region(s)		ECAR/SERC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	19,068	20
Electric Utilities	15,349	16
Independent Power Producers & Combined Heat and Power	3,719	24
Net Generation (megawatthours)	91,718,820	19
Electric Utilities	80,696,982	14
Independent Power Producers & Combined Heat and Power	11,021,838	21
Emissions (thousand metric tons)		
Sulfur Dioxide	483	7
Nitrogen Oxide	169	7
Carbon Dioxide	85,573	8
Sulfur Dioxide (lbs/MWh)	11.6	4
Nitrogen Oxide (lbs/MWh)	4.1	11
Carbon Dioxide (lbs/MWh)	2,057	8
Total Retail Sales (megawatthours)	85,219,631	14
Full Service Provider Sales (megawatthours)	85,219,631	14
Direct Use (megawatthours)	188,286	43
Average Retail Price (cents/kWh)	4.42	51

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Kentucky			
1. Paradise	Petroleum, Coal	Tennessee Valley Authority	2,179
2. Ghent	Petroleum, Coal	Kentucky Utilities Co	1,954
3. E W Brown	Petroleum, Gas, Coal	Kentucky Utilities Co	1,644
4. Mill Creek	Gas, Coal	Louisville Gas & Electric Co	1,472
5. Shawnee	Petroleum, Coal	Tennessee Valley Authority	1,330
6. Big Sandy	Petroleum, Coal	Kentucky Power Co	1,060
7. H L Spurlock	Petroleum, Coal	East Kentucky Power Coop Inc	850
8. Trimble County	Petroleum, Gas, Coal	Louisville Gas & Electric Co	829
9. East Bend	Petroleum, Coal	Cincinnati Gas & Electric Co	600
10. Cane Run	Petroleum, Gas, Coal	Louisville Gas & Electric Co	577

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership	All Sectors	Residential	Commercial	Industrial	Transportation
Kentucky	Type					
Kentucky Utilities Co Temposes Valley Authority	Investor-Owned Federal	16,686,927 12,586,695	5,593,780	5,499,198	5,593,949 12,586,695	0
Tennessee Valley Authority Louisville Gas & Electric Co	Investor-Owned	11,503,350	3,834,690	4.732.906	2,935,754	0
4. Kenergy Corp	Cooperative	9,335,174	688,284	276,058	8,370,832	0
5. Kentucky Power Co	Investor-Owned	6,609,224	2,356,515	1,322,500	2,930,209	0
Total Sales, Top Five Providers		56,721,370	12,473,269	11,830,662	32,417,439	0
Percent of Total State Sales		67	50	66	76	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

P. G				Annual	P	Percentage Share	
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
entucky							
Electric Utilities	15,506	13,995	15,349	-0.1	100.0	87.5	80.5
Coal	14,075	12,517	12,435	-1.4	90.8	78.3	65.2
Petroleum	134	70	70	-7.0	.9	.4	.4
Natural Gas	207	92	684	14.2	1.3	.6	3.6
Dual Fired	288	508	1,342	18.6	1.9	3.2	7.0
Hydroelectric	802	808	818	.2	5.2	5.1	4.3
Independent Power Producers and Combined Heat and Power Coal	0	1,995 1,906	3,719 1,716	NM NM	.0 .0	12.5	19.5
Natural Gas	0 0	0 85 4	1,343 609 51	NM NM NM	.0 .0 .0	.0 .5 *	9.0 7.0 3.2 .3
Dual Fired	-	85	609	NM	.0	.0 .5	7.0
Dual Fired Other Renewables	0	85 4	609 51	NM NM	.0	.0 .5 *	7.0 3.2 .3 100. 0
Dual Fired Other Renewables Total Electric Industry	0 15,506	85 4 15,990	609 51 19,068	NM NM 2.3	.0 .0	.0 .5 *	7.0 3.2 .3 100. 0 74.2
Dual Fired Other Renewables Total Electric Industry Coal	15,506 14,075	85 4 15,990 14,423	609 51 19,068 14,151	NM NM 2.3 .1	.0 .0 100.0 90.8	.0 .5 * 100.0 90.2	7.0 3.2 .3
Dual Fired	15,506 14,075 134	85 4 15,990 14,423 70	609 51 19,068 14,151 70	NM NM 2.3 .1 -7.0	.0 .0 100.0 90.8 .9	.0 .5 * 100.0 90.2 .4	7.0 3.2 .3 100.0 74.2
Dual Fired	15,506 14,075 134 207	85 4 15,990 14,423 70 92	609 51 19,068 14,151 70 2,027	NM NM 2.3 .1 -7.0 28.9	.0 .0 100.0 90.8 .9 1.3	.0 .5 * 100.0 90.2 .4 .6	7.0 3.2 .3 100.0 74.2 .4 10.6

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	I	Percentage Shar	e
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Kentucky							
Electric Utilities	84,097,034	86,151,121	80,696,982	-0.5	100.0	94.7	88.0
Coal	79,897,442	82,412,216	76,367,048	5	95.0	90.6	83.3
Petroleum	154,819	127,062	130,280	-1.9	.2	.1	.1
Natural Gas	31,183	495,825	229,930	24.9	*	.5	.3
Hydroelectric	4,013,590	3,116,018	3,948,052	2	4.8	3.4	4.3
Other Renewables	0	0	21,672	NM	.0	.0	*
Independent Power Producers and Combined							
Heat and Power	0	4,781,907	11,021,838	NM	.0	5.3	12.0
Coal	0	4,426,586	7,693,492	NM	.0	4.9	8.4
Petroleum	0	337,886	2,814,631	NM	.0	.4	3.1
Natural Gas	0	1,783	214,475	NM	.0	*	.2
Other Renewables	0	15,652	299,240	NM	.0	*	.3
Total Electric Industry	84,097,034	90,933,028	91,718,820	1.0	100.0	100.0	100.0
Coal	79,897,442	86,838,802	84,060,540	.6	95.0	95.5	91.6
Petroleum	154,819	464,948	2,944,911	38.7	.2	.5	3.2
Natural Gas	31,183	497,608	444,405	34.3	*	.5	.5
Hydroelectric	4,013,590	3,116,018	3,948,052	2	4.8	3.4	4.3
Other Renewables	0	15,652	320,912	NM	.0	*	.3

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Kentucky				
Coal (cents per million Btu)	116.2	105.9	122.8	0.6
Average heat value (Btu per pound)	11,683	11,579	11,498	2
Average sulfur Content (percent)	2.3	2.4	2.1	-1.1
Petroleum (cents per million Btu)	152.7	277.7	W	W
Average heat value (Btu per gallon)	87,876	115,749	132,665	4.7
Average sulfur Content (percent)	4.1	1.9	3.9	5
Natural Gas (cents per million Btu)	287.2	331.9	657.7	9.6
Average heat value (Btu per cubic foot)	1,021	1.024	1.017	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Kentucky				
Sulfur Dioxide				
Coal	812	544	474	-5.8
Petroleum	*	*	7	49.7
Natural Gas	_	_	_	NM
Other	_	_	3	NM
Total	813	544	483	-5.6
Nitrogen Oxide				
Coal	317	289	161	-7.2
Petroleum	*	*	6	59.2
Gas	*	1	*	24.6
Other	_	*	1	NM
Total	318	290	169	-6.8
Carbon Dioxide				
Coal	74,174	81,248	81,565	1.1
Petroleum	133	535	3,411	43.4
Gas	19	310	570	46.1
Geothermal	_	_	_	NM
Other	_	_	27	NM
Total	74.326	82.093	85.573	1.6

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Kentucky							
Retail Sales (thousand megawatthours)							
Residential	19,481	21,669	24,704	2.7	26.9	28.6	29.0
Commercial	10,095	12,729	17,946	6.6	13.9	16.8	21.1
Industrial	40,049	38,260	42,570	.7	55.3	50.4	49.9
Other	2,861	3,192	NA	NM	3.9	4.2	NA
Total	72,485	75,850	85,220	1.8	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,125	1,216	1,435	2.7	36.4	38.5	38.1
Commercial	534	675	963	6.8	17.3	21.4	25.6
Industrial	1,299	1,115	1,365	.5	42.0	35.3	36.3
Other	134	149	NA	NM	4.3	4.7	NA
Total	3,091	3,155	3,763	2.2	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	5.77	5.61	5.81	.1	NA	NA	NA
Commercial	5.29	5.30	5.37	.2	NA	NA	NA
Industrial	3.24	2.91	3.21	1	NA	NA	NA
Other	4.67	4.67	NA	NM	NA	NA	NA
Total	4.26	4.16	4.42	.4	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers					Other 1		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Kentucky								
Number of Entities	6	30	1	24	1	NA	NA	62
Number of Retail Customers	1,170,276	202,575	22	744,263	2	NA	NA	2,117,138
Retail Sales (thousand megawatthours)	41,097	6,537	12,587	24,955	44	NA	NA	85,220
Percentage of Retail Sales	48.22	7.67	14.77	29.28	.05	NA	NA	100.00
Revenue from Retail Sales (million dollars)	1,855	346	330	1,229	3	NA	NA	3,763
Percentage of Revenue	49.28	9.19	8.78	32.66	.08	NA	NA	100.00
Average Retail Price (cents/kWh)	4.51	5.29	2.63	4.93	6.95	NA	NA	4.42

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Louisiana		
NERC Region(s)		SPP/SERC
Primary Energy Source		Gas
Net Summer Capability (megawatts)	25,748	13
Electric Utilities	14,090	17
Independent Power Producers & Combined Heat and Power	11,659	9
Net Generation (megawatthours)	94,885,040	14
Electric Utilities	43,485,059	22
Independent Power Producers & Combined Heat and Power	51,399,981	8
Emissions (thousand metric tons)		
Sulfur Dioxide	194	20
Nitrogen Oxide	96	15
Carbon Dioxide	55,863	15
Sulfur Dioxide (lbs/MWh)	4.5	27
Nitrogen Oxide (lbs/MWh)	2.2	32
Carbon Dioxide (lbs/MWh)	1,298	30
Total Retail Sales (megawatthours)	77,769,322	17
Full Service Provider Sales (megawatthours)	77,769,322	16
Direct Use (megawatthours)	22,048,053	2
Average Retail Price (cents/kWh)	6.93	20

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Plant Energy Sources		Net Summer Capability (MW)
Louisiana			
1. Willow Glen	Petroleum, Gas	Entergy Gulf States Inc	1,832
2. Big Cajun 2	Petroleum, Coal	Louisiana Generating LLC	1,730
3. Nine Mile Point	Petroleum, Gas	Entergy Louisiana Inc	1,705
4. R S Nelson	Petroleum, Gas, Coal	Entergy Gulf States Inc	1,416
5. Little Gypsy	Gas	Entergy Louisiana Inc	1,204
6. Waterford 3	Nuclear	Entergy Louisiana Inc	1,089
7. Acadia Energy Center	Gas	Calpine Corp	1,082
8. River Bend	Nuclear	Entergy Gulf States Inc	978
9. Rodemacher	Petroleum, Gas, Coal	CLECO Power LLC	963
10. Michoud	Gas	Entergy New Orleans Inc	825

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Louisiana						
1. Entergy Louisiana Inc	Investor-Owned	27,778,554	8,795,215	6,110,435	12,870,061	2,843
Entergy Gulf States Inc CLECO Power LLC	Investor-Owned Investor-Owned	18,439,575 8,591,562	4,618,974 3,428,776	4,675,273 2,376,897	9,145,328 2,785,889	0
4. Entergy New Orleans Inc	Investor-Owned	5,844,264	2,132,976	3,299,682	411,606	0
5. Southwestern Electric Power Co	Investor-Owned	5,276,707	2,213,815	2,178,550	884,342	0
Total Sales, Top Five Providers		65,930,662	21,189,756	18,640,837	26,097,226	2,843
Percent of Total State Sales		85	74	85	96	100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
ouisiana							
Electric Utilities	16,873	17,014	14,090	-2.0	85.9	83.5	54.7
Coal	3,343	3,448	1,723	-7.1	17.0	16.9	6.7
Petroleum	16	16	16	.0	.1	.1	.1
Natural Gas	1,811	1,843	1,586	-1.5	9.2	9.0	6.2
Dual Fired	9,697	9,696	8,698	-1.2	49.4	47.6	33.8
Nuclear	2,006	2,011	2,067	.3	10.2	9.9	8.0
Independent Power Producers and Combined							
Heat and Power	2,761	3,357	11,659	17.4	14.1	16.5	45.3
Coal	8	0	1,730	81.7	*	.0	6.7
Petroleum	0	0	46	NM	.0	.0	.2
Natural Gas	1,598	2,239	8,996	21.2	8.1	11.0	34.9
Other Gases	88	105	63	-3.6	.4	.5	.2
Dual Fired	378	290	433	1.5	1.9	1.4	1.7
Hydroelectric	182	182	192	.6	.9	.9	.7
Other Renewables	486	520	175	-10.7	2.5	2.6	.7
Other	21	21	24	1.5	.1	.1	.1
Total Electric Industry	19,636	20,372	25,748	3.1	100.0	100.0	100.0
Coal	3,351	3,448	3,453	.3	17.1	16.9	13.4
Petroleum	16	16	62	16.2	.1	.1	.2
Natural Gas	3,410	4,082	10,581	13.4	17.4	20.0	41.1
Other Gases	88	105	63	-3.6	.4	.5	.2
Dual Fired	10,075	9,987	9,131	-1.1	51.3	49.0	35.5
Nuclear	2,006	2,011	2,067	.3	10.2	9.9	8.0
Hydroelectric	182	182	192	.6	.9	.9	.7
Other Renewables	487	520	175	-10.7	2.5	2.6	.7
Other	21	21	24	1.5	.1	.1	.1

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	I	Percentage Share	•
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
ouisiana							
Electric Utilities	60,169,910	66,107,474	43,485,059	-3.5	75.8	73.7	45.8
Coal	20,125,159	20,761,891	11,020,325	-6.5	25.4	23.2	11.6
Petroleum	679,969	600,078	1,007,874	4.5	.9	.7	1.1
Natural Gas	26,586,147	28,318,004	15,093,742	-6.1	33.5	31.6	15.9
Other Gases	0	0	236,796	NM	.0	.0	.3
Nuclear	12,778,635	16,427,501	16,126,322	2.6	16.1	18.3	17.0
Independent Power Producers and Combined							
Heat and Power	19,216,051	23,541,137	51,399,981	11.6	24.2	26.3	54.2
Coal	38,253	19,639	11,868,605	89.2	*	*	12.5
Petroleum	1,640,424	1,693,442	1,930,074	1.8	2.1	1.9	2.0
Natural Gas	11,925,438	16,657,192	30,340,456	10.9	15.0	18.6	32.0
Other Gases	1,335,124	918,066	2,450,434	7.0	1.7	1.0	2.6
Hydroelectric	971,978	1,062,824	891,991	9	1.2	1.2	.9
Other Renewables	2,627,268	2,871,881	3,174,765	2.1	3.3	3.2	3.3
Other	677,566	318,093	743,656	1.0	.9	.4	3.
Total Electric Industry	79,385,961	89,648,611	94,885,040	2.0	100.0	100.0	100.0
Coal	20,163,412	20,781,530	22,888,930	1.4	25.4	23.2	24.
Petroleum	2,320,393	2,293,520	2,937,948	2.7	2.9	2.6	3.
Natural Gas	38,511,585	44,975,196	45,434,198	1.9	48.5	50.2	47.9
Other Gases	1,335,124	918,066	2,687,230	8.1	1.7	1.0	2.
Nuclear	12,778,635	16,427,501	16,126,322	2.6	16.1	18.3	17.0
Hydroelectric	971,978	1,062,824	891,991	9	1.2	1.2	
Other Renewables	2,627,268	2,871,881	3,174,765	2.1	3.3	3.2	3.3
Other	677,566	318,093	743,656	1.0	.9	.4	.:

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Louisiana				
Coal (cents per million Btu)	153.9	142.9	W	W
Average heat value (Btu per pound)	8,136	8,097	8,023	-0.2
Average sulfur Content (percent)	.5	.6	.5	2
Petroleum (cents per million Btu)	269.3	222.3	246.6	-1.0
Average heat value (Btu per gallon)	147,869	153,402	145,807	2
Average sulfur Content (percent)	.7	1.0	3.8	21.2
Natural Gas (cents per million Btu)	207.4	227.4	561.2	11.7
Average heat value (Btu per cubic foot)	1,046	1,043	1,033	1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Louisiana				
Sulfur Dioxide				
Coal	115	87	87	-3.0
Petroleum	114	83	83	-3.4
Natural Gas	*	*	*	3.8
Other	19	16	24	2.4
Total	248	185	194	-2.7
Nitrogen Oxide				
Coal	87	40	39	-8.6
Petroleum	8	6	10	3.1
Gas	51	66	39	-2.8
Other	6	7	8	3.4
Total	152	119	96	-4.9
Carbon Dioxide				
Coal	21,214	21,582	23,593	1.2
Petroleum	2,522	2,551	3,008	2.0
Gas	25,427	31,622	29,010	1.5
Geothermal		_		NM
Other	*	_	253	115.1
Total	49,164	55,755	55,863	1.4

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Louisiana							
Retail Sales (thousand megawatthours)							
Residential	22,629	26,709	28,572	2.6	32.3	34.4	36.7
Commercial	15,041	17,274	21,944	4.3	21.4	22.2	28.2
Industrial	29,870	30,999	27,251	-1.0	42.6	39.9	35.0
Other	2,593	2,734	NA	NM	3.7	3.5	NA
Transportation	NA	NA	3	NM	NA	NA	.0
Total	70,132	77,716	77,769	1.2	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,723	1,889	2,241	3.0	40.6	42.1	41.6
Commercial	1,082	1,132	1,628	4.6	25.5	25.2	30.2
Industrial	1,259	1,288	1,518	2.1	29.7	28.7	28.2
Other	177	181	NA	NM	4.2	4.0	NA
Total	4,241	4,490	5,387	2.7	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.61	7.07	7.84	.3	NA	NA	NA
Commercial	7.20	6.56	7.42	.3	NA	NA	NA
Industrial	4.22	4.15	5.57	3.1	NA	NA	NA
Other	6.81	6.62	NA	NM	NA	NA	NA
Transportation	NA	NA	7.32	NM	NA	NA	NA
Total	6.05	5.78	6.93	1.5	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr		Other 1			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Louisiana								
Number of Entities	5	22	NA	13	3	NA	NA	43
Number of Retail Customers	1,611,090	153,740	NA	366,208	302	NA	NA	2,131,340
Retail Sales (thousand megawatthours)	65,931	4,357	NA	7,439	43	NA	NA	77,769
Percentage of Retail Sales	84.78	5.60	NA	9.57	.05	NA	NA	100.00
Revenue from Retail Sales (million dollars)	4,595	293	NA	497	2	NA	NA	5,387
Percentage of Revenue	85.30	5.44	NA	9.22	.04	NA	NA	100.00
Average Retail Price (cents/kWh)	6.97	6.73	NA	6.68	5.09	NA	NA	6.93

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Maine		
NERC Region(s)		NPCC
Primary Energy Source		Gas
Net Summer Capability (megawatts)	4,285	42
Electric Utilities	19	49
Independent Power Producers & Combined Heat and Power	4,266	21
Net Generation (megawatthours)	18,971,635	43
Electric Utilities	1,409	50
Independent Power Producers & Combined Heat and Power	18,970,226	14
Emissions (thousand metric tons)		
Sulfur Dioxide	20	41
Nitrogen Oxide	11	44
Carbon Dioxide	7,662	43
Sulfur Dioxide (lbs/MWh)	2.3	39
Nitrogen Oxide (lbs/MWh)	1.3	41
Carbon Dioxide (lbs/MWh)	890	42
Total Retail Sales (megawatthours)	11,971,837	43
Full Service Provider Sales (megawatthours)	768,781	51
Deregulated Sales (megawatthours)	11,203,056	7
Direct Use (megawatthours)	4,367,847	9
Average Retail Price (cents/kWh)	9.79	10

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Maine			
1. William F Wyman	Petroleum	FPL Energy Wyman LLC	825
2. Westbrook Energy Center	Gas	Calpine Eastern Corp	506
3. Maine Independence Station	Gas	Casco Bay Energy Co LLC	490
4. Bucksport Mill	Other, Petroleum, Gas	International Paper Co- Bucksport	269
5. Rumford Power Associates	Gas	Calpine Corp	254
6. Androscoggin Energy Center	Other, Gas	Calpine Androscoggin Energy	130
7. Great Northern Paper	Hydro	Great Lakes Hydro America LLC	129
8. Somerset Plant	Petroleum, Other	Sappi Fine Paper North America-Somerset	115
9. Millinocket Mill	Petroleum, Other	Katahdin Paper Inc	103
10. Mason Steam	Petroleum	FPL Energy Mason LLC	98

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Maine						
Constellation Power Source Inc	Power Marketer	5,356,445	4,156,009	1,112,825	87,611	0
2. FPL Energy Power Marketing Inc	Power Marketer	1,431,236	0	1,431,236	0	0
3. Constellation NewEnergy, Inc	Power Marketer	1,218,619	0	1,218,619	0	0
4. WPS Energy Services	Power Marketer	1,067,121	345,740	513,222	208,159	0
5. Select Energy	Power Marketer	295,952	0	239,070	56,882	0
Total Sales, Top Five Providers		9,369,373	4,501,749	4,514,972	352,652	0
Percent of Total State Sales		78	100	100	9	0

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share	:
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Iaine							
Electric Utilities	2,433	1,457	19	-41.7	63.6	51.5	0.4
Petroleum	1,109	1,025	19	-36.4	29.0	36.3	.4
Nuclear	870	0	0	NM	22.7	.0	.0
Hydroelectric	422	402	0	NM	11.0	14.2	.0
Other Renewables	32	30	0	NM	.8	1.1	.0
Independent Power Producers and Combined							
Heat and Power	1,395	1,368	4,266	13.2	36.4	48.4	99.6
Coal	96	96	85	-1.3	2.5	3.4	2.0
Petroleum	181	181	1.097	22.2	4.7	6.4	25.6
Natural Gas	0	0	1,352	NM	.0	.0	31.6
Dual Fired.	15	15	319	40.4	.4	.5	7.4
Hydroelectric	351	355	720	8.3	9.2	12.6	16.8
Other Renewables	752	721	693	9	19.6	25.5	16.2
Total Electric Industry	3,828	2,827	4,285	1.3	100.0	100.0	100.0
Coal	96	96	85	-1.3	2.5	3.4	2.0
Petroleum	1,290	1,207	1,116	-1.6	33.7	42.7	26.0
Natural Gas	0	0	1,352	NM	.0	.0	31.6
Dual Fired.	15	15	318	40.4	.4	.5	7.4
Nuclear	870	0	0	NM	22.7	.0	.0
Hydroelectric	773	758	721	8	20.2	26.8	16.8
Other Renewables	784	751	693	-1.4	20.5	26.6	16.2

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

Energy Source			2003	Annual	Percentage Share		
	1994	1998		Growth Rate 1994-2003 (Percent)	1994	1998	2003
Maine							
Electric Utilities	9,015,544	3,549,008	1,409	-62.2	54.8	32.3	*
Petroleum	701,843	1,728,702	1,409	-49.8	4.3	15.7	*
Nuclear	6,631,984	0	0	NM	40.3	.0	0.0
Hydroelectric	1,681,717	1,820,306	0	NM	10.2	16.5	.0
Independent Power Producers and Combined							
Heat and Power	7,440,606	7,454,309	18,970,227	11.0	45.2	67.7	100.0
Coal	676,920	588,362	376,532	-6.3	4.1	5.3	2.0
Petroleum	1,170,495	1,416,461	1,918,139	5.6	7.1	12.9	10.1
Natural Gas	9,267	3,369	9,438,704	115.9	.1	*	49.8
Other Gases	3,928	4,943	34	-41.0	*	*	.0
Hydroelectric	1,829,050	1,895,660	3,172,623	6.3	11.1	17.2	16.7
Other Renewables	3,750,946	3,545,514	3,909,608	.5	22.8	32.2	20.6
Other	0	0	154,586	NM	.0	.0	.8
Total Electric Industry	16,456,150	11,003,317	18,971,635	1.6	100.0	100.0	100.0
Coal	676,920	588,362	376,532	-6.3	4.1	5.3	2.0
Petroleum	1,872,338	3,145,163	1,919,548	.3	11.4	28.6	10.1
Natural Gas	9,267	3,369	9,438,704	115.9	.1	*	49.8
Other Gases	3,928	4,943	34	-41.0	*	*	.0
Nuclear	6,631,984	0	0	NM	40.3	.0	.0
Hydroelectric	3,510,767	3,715,966	3,172,623	-1.1	21.3	33.8	16.7
Other Renewables	3,750,946	3,545,514	3,909,608	.5	22.8	32.2	20.6
Other	0	0	154.586	NM	.0	.0	.8

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Maine				
Coal (cents per million Btu)	0.0	0.0	W	W
Average heat value (Btu per pound)	0	0	13,124	NM
Average sulfur Content (percent)	.0	.0	.7	NM
Petroleum (cents per million Btu)	213.8	202.1	555.7	11.2
Average heat value (Btu per gallon)	150,208	151,240	150,318	*
Average sulfur Content (percent)	1.2	1.2	.8	-4.5
Natural Gas (cents per million Btu)	.0	.0	584.2	NM
Average heat value (Btu per cubic foot)	0	0	1.042	NM

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
I aine				
Sulfur Dioxide				
Coal	4	4	1	-11.9
Petroleum	7	32	9	4.0
Natural Gas	_	_	*	NM
Other	10	6	9	-1.2
Total	21	42	20	5
Nitrogen Oxide				
Coal	4	2	1	-10.9
Petroleum	5	7	3	-6.5
Gas	*	*	1	63.9
Other	6	6	6	.8
Total	14	15	11	-2.5
Carbon Dioxide				
Coal	1,054	672	634	-5.5
Petroleum	3,340	4,476	2,395	-3.6
Gas	. 7	3	4,145	103.1
Geothermal	_	_		NM
Other	79	87	488	22.4
Total	4,480	5,237	7,662	6.1

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

Sector		1998	2003	Annual	Percentage Share		
	1994			Growth Rate 1994-2003 (Percent)	1994	1998	2003
Maine							
Retail Sales (thousand megawatthours)							
Residential	3,692	3,589	4,219	1.5	31.8	30.9	35.2
Commercial	2,812	3,324	3,959	3.9	24.2	28.7	33.1
Industrial	4,952	4,622	3,793	-2.9	42.7	39.8	31.7
Other	151	63	NA	NM	1.3	.5	NA
Total	11,606	11,599	11,972	.3	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	455	467	522	1.5	40.7	41.3	44.5
Commercial	286	343	409	4.0	25.6	30.3	34.9
Industrial	356	306	241	-4.2	31.8	27.1	20.6
Other	22	15	NA	NM	2.0	1.3	NA
Total	1,118	1,131	1,172	.5	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	12.32	13.02	12.37	*	NA	NA	NA
Commercial	10.16	10.33	10.34	.2	NA	NA	NA
Industrial	7.18	6.61	6.35	-1.4	NA	NA	NA
Other	14.63	23.64	NA	NM	NA	NA	NA
Total	9.63	9.75	9.79	.2	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

Item	Full Service Providers					Other P		
	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Maine								
Number of Entities	1	4	NA	3	2	14	5	29
Number of Retail Customers	33	9,976	NA	2,402	2	748,446	NA	760,859
Retail Sales (thousand megawatthours)	*	385	NA	13	371	11,203	NA	11,972
Percentage of Retail Sales	*	3.22	NA	.10	3.10	93.58	NA	100.00
Revenue from Retail Sales (million dollars)	*	26	NA	2	8	558	579	1,172
Percentage of Revenue	*	2.24	NA	.19	.65	47.56	49.36	100.00
Average Retail Price (cents/kWh)	10.33	6.82	NA	17.86	2.05	4.98	5.16	9.79

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Maryland		
NERC Region(s)		ECAR/MAAC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	12,472	29
Electric Utilities	71	47
Independent Power Producers & Combined Heat and Power	12,402	8
Net Generation (megawatthours)	52,244,237	26
Electric Utilities	51,722	47
Independent Power Producers & Combined Heat and Power	52,192,515	7
Emissions (thousand metric tons)		
Sulfur Dioxide	264	14
Nitrogen Oxide	69	29
Carbon Dioxide	32,632	29
Sulfur Dioxide (lbs/MWh)	11.1	5
Nitrogen Oxide (lbs/MWh)	2.9	22
Carbon Dioxide (lbs/MWh)	1,377	25
Total Retail Sales (megawatthours)	71,258,583	21
Full Service Provider Sales (megawatthours)	59,692,937	24
Deregulated Sales (megawatthours)	11,565,646	6
Direct Use (megawatthours)		28
Average Retail Price (cents/kWh)	6.45	28

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Maryland			·
1. Chalk Point LLC	Gas, Petroleum, Coal	Mirant Chalk Point LLC	2,429
Calvert Cliffs Nuclear Power Plant	Nuclear	Calvert Cliffs Nuclear PP Inc	1,703
3. Morgantown Generating Plant	Petroleum, Coal	Mirant Mid-Atlantic LLC	1,492
4. Brandon Shores	Petroleum, Coal	Constellation Power Source Gen	1,286
5. Herbert A Wagner	Gas, Petroleum, Coal	Constellation Power Source Gen	1,014
6. Dickerson	Petroleum, Gas, Coal	Mirant Mid-Atlantic LLC	853
7. Rockspring Generating	Gas	Consolidated Edison Energy Inc	634
8. Conowingo	Hydro	Susquehanna Electric Co	548
9. C P Crane	Gas, Petroleum, Coal	Constellation Power Source Gen	399
10. Perryman	Petroleum	Constellation Power Source Gen	360

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours))

Entity	Ownership Type	All Sectors	Residential	Residential Commercial		Commercial Industrial		Transportation
Maryland								
Baltimore Gas & Electric Co Potomac Electric Power Co	Investor-Owned Investor-Owned	31,114,062 10.468,174	12,770,131 5,080,577	3,409,815 5,387,491	14,850,717 106	83,399		
Potomac Edison Co Washington Gas Energy Services	Investor-Owned Power Marketer	9,415,103 4,330,477	3,010,474 778,387	1,842,410 3.090.615	4,562,219 272,834	0 188.641		
Washington Gas Energy Services Delmarva Power & Light Company Total Sales, Top Five Providers	Investor-Owned	4,068,810 59,396,626	2,145,153 23,784,722	1,485,852 15,216,183	437,805 20,123,681	0 272,040		
Percent of Total State Sales		83	89	90	74	59		

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Maryland								
Electric Utilities	10,837	10,971	71	-42.8	97.3	94.7	0.6	
Coal	4,631	4,647	0	NM	41.6	40.1	.0	
Petroleum	1,417	1,289	50	-31.0	12.7	11.1	.4	
Natural Gas	1,207	1,456	0	NM	10.8	12.6	.0	
Dual Fired	1,377	1,374	21	-37.2	12.4	11.9	.2	
Nuclear	1,675	1,675	0	NM	15.0	14.5	.0	
Hydroelectric	530	530	0	NM	4.8	4.6	.0	
Independent Power Producers and Combined								
Heat and Power	299	610	12,402	51.3	2.7	5.3	99.4	
Coal	60	60	4,957	63.3	.5	.5	39.7	
Petroleum	2	2	835	95.5	*	*	6.7	
Natural Gas	0	248	972	NM	.0	2.1	7.8	
Other Gases	0	0	152	NM	.0	.0	1.2	
Dual Fired	172	172	3,090	37.8	1.5	1.5	24.8	
Nuclear	0	0	1,703	NM	.0	.0	13.7	
Hydroelectric	0	0	566	NM	.0	.0	4.5	
Other Renewables	65	128	127	7.7	.6	1.1	1.0	
Total Electric Industry	11,136	11,582	12,472	1.3	100.0	100.0	100.0	
Coal	4,691	4,707	4,957	.6	42.1	40.6	39.7	
Petroleum	1,419	1,291	885	-5.1	12.7	11.1	7.1	
Natural Gas	1,207	1,704	972	-2.4	10.8	14.7	7.8	
Other Gases	0	0	152	NM	.0	.0	1.2	
Dual Fired	1,549	1,547	3,110	8.1	13.9	13.4	24.9	
Nuclear	1,675	1,675	1,703	.2	15.0	14.5	13.7	
Hydroelectric	530	530	566	.7	4.8	4.6	4.5	
Other Renewables	65	128	127	7.7	.6	1.1	1.0	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
Aaryland								
Electric Utilities	43,765,565	48,513,503	51,722	-52.7	96.5	95.8	0.1	
Coal	25,394,481	29,077,013	0	NM	56.0	57.4	.0	
Petroleum	4,133,533	3,311,978	51,722	-38.5	9.1	6.5	.1	
Natural Gas	992,607	1,054,177	0	NM	2.2	2.1	.0	
Nuclear	11,235,408	13,330,598	0	NM	24.8	26.3	.0	
Hydroelectric	2,009,536	1,739,737	0	NM	4.4	3.4	.0	
Independent Power Producers and Combined								
Heat and Power	1,574,053	2,139,514	52,192,515	47.6	3.5	4.2	99.9	
Coal	230,277	217,714	29,939,086	71.7	.5	.4	57.3	
Petroleum	141,693	142,372	3,520,461	42.9	.3	.3	6.7	
Natural Gas	179,435	936,419	1,195,643	23.5	.4	1.8	2.3	
Other Gases	501,762	82,316	325,355	-4.7	1.1	.2	.6	
Nuclear	0	0	13,690,713	NM	.0	.0	26.2	
Hydroelectric	0	0	2,646,984	NM	.0	.0	5.1	
Other Renewables	520,886	760,693	874,274	5.9	1.1	1.5	1.7	
Total Electric Industry	45,339,618	50,653,017	52,244,237	1.6	100.0	100.0	100.0	
Coal	25,624,758	29,294,727	29,939,086	1.7	56.5	57.8	57.3	
Petroleum	4,275,226	3,454,350	3,572,183	-2.0	9.4	6.8	6.8	
Natural Gas	1,172,042	1,990,596	1,195,643	.2	2.6	3.9	2.3	
Other Gases	501,762	82,316	325,355	-4.7	1.1	.2	.6	
Nuclear	11,235,408	13,330,598	13,690,713	2.2	24.8	26.3	26.2	
Hydroelectric	2,009,536	1,739,737	2,646,984	3.1	4.4	3.4	5.1	
Other Renewables	520,886	760,693	874,274	5.9	1.1	1.5	1.7	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Maryland				
Coal (cents per million Btu)	155.3	145.7	163.0	0.5
Average heat value (Btu per pound)	12,824	12,914	12,708	1
Average sulfur Content (percent)	1.2	1.2	1.1	9
Petroleum (cents per million Btu)	244.5	211.5	533.5	9.1
Average heat value (Btu per gallon)	150,636	150,776	148,564	2
Average sulfur Content (percent)	1.4	1.0	.6	-8.6
Natural Gas (cents per million Btu)	246.6	263.2	536.9	9.0
Average heat value (Btu per cubic foot)	1,043	1,047	1,047	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Maryland				
Sulfur Dioxide				
Coal	212	247	247	1.7
Petroleum	29	18	14	-7.9
Natural Gas	*	*	*	4.6
Other	2	2	3	.5
Total	243	268	264	.9
Nitrogen Oxide				
Coal	89	104	61	-4.0
Petroleum	6	7	4	-5.3
Gas	2	2	1	-12.9
Other	1	2	3	11.7
Total	99	115	69	-3.8
Carbon Dioxide				
Coal	24,087	27,193	28,399	1.8
Petroleum	3,971	3,165	2,964	-3.2
Gas	993	1,252	673	-4.2
Geothermal	_	,2	_	NM
Other	86	151	595	24.1
Total	29,137	31,761	32,632	1.3

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Percentage Share			
Sector	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
Maryland								
Retail Sales (thousand megawatthours)								
Residential	21,666	22,407	26,671	2.3	39.6	38.7	37.4	
Commercial	13,254	24,284	16,950	2.8	24.2	42.0	23.8	
Industrial	19,037	10,344	27,176	4.0	34.8	17.9	38.1	
Other	794	799	NA	NM	1.4	1.4	NA	
Transportation	NA	NA	461	NM	NA	NA	.6	
Total	54,752	57,834	71,259	3.0	100.0	100.0	100.0	
Retail Revenue (million dollars)								
Residential	1,817	1,890	2,060	1.4	47.2	46.7	44.8	
Commercial	953	1,656	1,178	2.4	24.8	40.9	25.6	
Industrial	1,008	429	1,329	3.1	26.2	10.6	28.9	
Other	68	70	NA	NM	1.8	1.7	NA	
Transportation	NA	NA	27	NM	NA	NA	.6	
Total	3,847	4,045	4,594	2.0	100.0	100.0	100.0	
Average Retail Price (cents/kWh)								
Residential	8.39	8.44	7.73	9	NA	NA	NA	
Commercial	7.19	6.82	6.95	4	NA	NA	NA	
Industrial	5.30	4.14	4.89	9	NA	NA	NA	
Other	8.58	8.82	NA	NM	NA	NA	NA	
Transportation	NA	NA	5.78	NM	NA	NA	NA	
Total	7.03	6.99	6.45	9	NA	NA	NA	

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr		Other P	roviders		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Maryland								
Number of Entities	4	5	NA	3	1	6	5	24
Number of Retail Customers	2,010,338	32,111	NA	174,291	1	78,564	NA	2,295,305
Retail Sales (thousand megawatthours)	55,066	754	NA	3,854	18	11,566	NA	71,259
Percentage of Retail Sales	77.28	1.06	NA	5.41	.03	16.23	NA	100.00
Revenue from Retail Sales (million dollars)	3,529	49	NA	274	1	526	214	4,594
Percentage of Revenue	76.83	1.08	NA	5.97	.02	11.44	4.66	100.00
Average Retail Price (cents/kWh)	6.41	6.56	NA	7.11	5.35	4.55	1.85	6.45

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Massachusetts		
NERC Region(s)		NPCC
Primary Energy Source		Gas
Net Summer Capability (megawatts)	13,877	26
Electric Utilities	981	44
Independent Power Producers & Combined Heat and Power	12,898	7
Net Generation (megawatthours)	48,385,024	29
Electric Utilities	2,055,622	43
Independent Power Producers & Combined Heat and Power	46,329,402	9
Emissions (thousand metric tons)		
Sulfur Dioxide	82	28
Nitrogen Oxide	33	37
Carbon Dioxide	27,197	33
Sulfur Dioxide (lbs/MWh)	3.7	32
Nitrogen Oxide (lbs/MWh)	1.5	39
Carbon Dioxide (lbs/MWh)	1,239	35
Total Retail Sales (megawatthours)	55,514,357	25
Full Service Provider Sales (megawatthours)	45,775,113	27
Deregulated Sales (megawatthours)	9,739,244	9
Direct Use (megawatthours)	2,452,982	18
Average Retail Price (cents/kWh)	10.56	6

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Massachusetts			
Exelon Mystic Generating Station	Petroleum, Gas	Exelon New England Holdings LLC	1,961
2. Brayton Point	Gas, Petroleum, Coal	U S Gen New England Inc	1,541
3. Canal	Gas, Petroleum	Mirant Canal LLC	1,112
4. Northfield Mountain	Hydro	Northeast Generation Services Company	1,080
5. Salem Harbor	Petroleum, Coal	U S Gen New England Inc	705
6. Pilgrim Nuclear Power Station	Nuclear	Entergy Nuclear Generation Co	685
7. Exelon Fore River Generating Station	Gas	Exelon New England Holdings LLC	684
8. Bear Swamp	Hydro	U S Gen New England Inc	563
9. ANP Blackstone Energy Project	Gas	ANP Blackstone Energy Co	444
10. ANP Bellingham Energy Project	Gas	ANP Bellingham Energy Co	443

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	dential Commercial Industrial		Transportation
Massachusetts						
Massachusetts Electric Co	Investor-Owned	17,212,298	8,376,397	6,568,402	2,267,499	0
2. Boston Edison Co	Investor-Owned	11,678,710	4,184,044	6,726,608	768,058	0
Western Massachusetts Elec Co	Investor-Owned	3,443,696	1,507,117	1,255,829	680,750	0
Commonwealth Electric Co	Investor-Owned	3,218,221	1,765,451	1,263,247	189,523	0
5. Constellation NewEnergy, Inc	Power Marketer	2,862,409	0	2,862,409	0	0
Total Sales, Top Five Providers		38,415,334	15,833,009	18,676,495	3,905,830	0
Percent of Total State Sales		69	81	73	39	0

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share	
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Tassachusetts							
Electric Utilities	9,286	3,385	981	-22.1	85.4	32.9	7.1
Coal	1,675	328	145	-23.8	15.4	3.2	1.0
Petroleum	2,555	431	311	-20.9	23.5	4.2	2.2
Natural Gas	752	115	2	-48.3	6.9	1.1	3
Dual Fired	1,778	574	479	-13.6	16.3	5.6	3.5
Nuclear	665	665	0	NM	6.1	6.5	
Hydroelectric	208	152	44	-15.9	1.9	1.5	
Pumped Storage	1,653	1,120	0	NM	15.2	10.9	
Independent Power Producers and Combined							
Heat and Power	1,591	6,908	12,898	26.2	14.6	67.1	92.9
Coal	31	1,799	1,515	54.1	.3	17.5	10.9
Petroleum	50	584	1,408	44.9	.5	5.7	10.
Natural Gas	312	673	4,311	33.9	2.9	6.5	31.
Dual Fired	832	2,783	2,814	14.5	7.6	27.0	20.3
Nuclear	0	0	685	NM	.0	.0	4.9
Hydroelectric	59	108	217	15.6	.5	1.0	1.0
Other Renewables	307	341	305	1	2.8	3.3	2.2
Pumped Storage	0	620	1,643	NM	.0	6.0	11.3
Total Electric Industry	10,878	10,296	13,877	2.7	100.0	100.0	100.0
Coal	1,706	2,128	1,659	3	15.7	20.7	12.
Petroleum	2,605	1,015	1,718	-4.5	23.9	9.9	12.
Natural Gas	1,064	789	4,314	16.8	9.8	7.7	31.
Dual Fired	2,611	3,357	3,292	2.6	24.0	32.6	23.
Nuclear	665	665	685	.3	6.1	6.5	4.
Hydroelectric	267	260	261	3	2.5	2.5	1.
Other Renewables	307	342	305	1	2.8	3.3	2.
Pumped Storage	1,653	1,740	1,643	1	15.2	16.9	11.

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share		
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Massachusetts							
Electric Utilities	27,466,049	26,036,881	2,055,622	-25.0	72.4	57.0	4.2
Coal	10,209,727	8,168,608	1,074,514	-22.1	26.9	17.9	2.2
Petroleum	9,561,302	10,019,730	517,767	-27.7	25.2	21.9	1.1
Natural Gas	3,736,177	1,818,857	234,942	-26.5	9.8	4.0	.5
Nuclear	3,858,569	5,698,414	0	NM	10.2	12.5	.0
Hydroelectric	746,370	760,785	228,399	-12.3	2.0	1.7	.5
Pumped Storage	-646,096	-429,513	0	NM	-1.7	9	.0
Independent Power Producers and Combined							
Heat and Power	10,473,015	19,646,735	46,329,402	18.0	27.6	43.0	95.8
Coal	110,420	3,031,150	9,821,976	64.7	.3	6.6	20.3
Petroleum	537,339	4,514,636	6,941,271	32.9	1.4	9.9	14.3
Natural Gas	7,583,499	9,802,971	22,188,989	12.7	20.0	21.5	45.9
Nuclear	0	0	4,977,955	NM	.0	.0	10.3
Hydroelectric	191,547	268,956	846,783	18.0	.5	.6	1.8
Other Renewables	2,050,210	2,055,094	2,051,084	*	5.4	4.5	4.2
Pumped Storage	0	-26,072	-510,929	NM	.0	1	-1.1
Other	0	0	12,273	NM	.0	.0	*
Total Electric Industry	37,939,064	45,683,616	48,385,024	2.7	100.0	100.0	100.0
Coal	10,320,147	11,199,758	10,896,490	.6	27.2	24.5	22.5
Petroleum	10,098,641	14,534,366	7,459,038	-3.3	26.6	31.8	15.4
Natural Gas	11,319,676	11,621,828	22,423,931	7.9	29.8	25.4	46.3
Nuclear	3,858,569	5,698,414	4,977,955	2.9	10.2	12.5	10.3
Hydroelectric	937,917	1,029,741	1,075,182	1.5	2.5	2.3	2.2
Other Renewables	2,050,210	2,055,094	2,051,084	*	5.4	4.5	4.2
Pumped Storage	-646,096	-455,585	-510,929	NM	-1.7	-1.0	-1.1
Other	0	0	12,273	NM	.0	.0	*

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Aassachusetts				
Coal (cents per million Btu)	167.8	167.6	W	W
Average heat value (Btu per pound)	12,814	12,617	12,200	-0.5
Average sulfur Content (percent)	.9	.7	1.1	2.5
Petroleum (cents per million Btu)	262.4	192.6	462.8	6.5
Average heat value (Btu per gallon)	150,871	151,403	149,850	1
Average sulfur Content (percent)	1.4	1.0	.8	-5.6
Natural Gas (cents per million Btu)	224.1	273.8	534.4	10.1
Average heat value (Btu per cubic foot)	1,037	1,029	1,032	1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Massachusetts				
Sulfur Dioxide				
Coal	64	59	48	-3.2
Petroleum	52	82	34	-4.6
Natural Gas	*	*	*	6.6
Other	1	*	*	-9.6
Total	116	141	82	-3.8
Nitrogen Oxide				
Coal	27	21	15	-5.9
Petroleum	9	17	6	-3.9
Gas	9	10	4	-8.3
Other	3	4	6	7.5
Total	49	52	33	-4.3
Carbon Dioxide				
Coal	9,333	10,117	9,976	.7
Petroleum	8,512	11,976	6,390	-3.1
Gas	5,786	6,116	9,576	5.8
Geothermal	_ ′	_ ′	_ ′	NM
Other	379	349	1,256	14.2
Total	24,009	28,558	27,197	1.4

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Massachusetts							
Retail Sales (thousand megawatthours)							
Residential	16,049	16,388	19,591	2.2	34.8	33.7	35.3
Commercial	19,371	21,422	25,648	3.2	42.0	44.1	46.2
Industrial	9,710	10,212	9,984	.3	21.1	21.0	18.0
Other	961	585	NA	NM	2.1	1.2	NA
Transportation	NA	NA	292	NM	NA	NA	.5
Total	46,091	48,607	55,514	2.1	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,779	1,737	2,272	2.8	38.6	37.3	38.8
Commercial	1,889	2,003	2,687	4.0	41.0	43.0	45.8
Industrial	822	835	891	.9	17.8	17.9	15.2
Other	121	84	NA	NM	2.6	1.8	NA
Transportation	NA	NA	12	NM	NA	NA	.2
Total	4,611	4,659	5,862	2.7	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	11.09	10.60	11.60	.5	NA	NA	NA
Commercial	9.75	9.35	10.48	.8	NA	NA	NA
Industrial	8.46	8.18	8.93	.6	NA	NA	NA
Other	12.60	14.35	NA	NM	NA	NA	NA
Transportation	NA	NA	4.09	NM	NA	NA	NA
Total	10.00	9.59	10.56	.6	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other P	roviders			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Massachusetts								
Number of Entities	7	41	NA	NA	4	9	8	69
Number of Retail Customers	2,456,890	382,808	NA	NA	132	87,478	NA	2,927,308
Retail Sales (thousand megawatthours)	37,545	7,913	NA	NA	318	9,739	NA	55,514
Percentage of Retail Sales	67.63	14.25	NA	NA	.57	17.54	NA	100.00
Revenue from Retail Sales (million dollars)	4,182	743	NA	NA	30	496	411	5,862
Percentage of Revenue	71.34	12.67	NA	NA	.51	8.46	7.02	100.00
Average Retail Price (cents/kWh)	11.14	9.39	NA	NA	9.42	5.09	4.22	10.56

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Michigan		
NERC Region(s)		ECAR/MAPP/MAIN
Primary Energy Source		Coal
Net Summer Capability (megawatts)	30,450	9
Electric Utilities	23,346	6
Independent Power Producers & Combined Heat and Power	7,106	16
Net Generation (megawatthours)	111,347,060	12
Electric Utilities	96,634,055	7
Independent Power Producers & Combined Heat and Power	14,713,005	17
Emissions (thousand metric tons)		
Sulfur Dioxide	364	12
Nitrogen Oxide	130	12
Carbon Dioxide	73,278	12
Sulfur Dioxide (lbs/MWh)	7.2	16
Nitrogen Oxide (lbs/MWh)	2.6	28
Carbon Dioxide (lbs/MWh)	1,451	23
Total Retail Sales (megawatthours)	108,877,193	10
Full Service Provider Sales (megawatthours)	98,765,181	12
Deregulated Sales (megawatthours)	10,112,012	8
Direct Use (megawatthours)	2,919,243	16
Average Retail Price (cents/kWh)	6.85	23

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Michigan			
1. Monroe	Petroleum, Coal	Detroit Edison Co	3,059
2. Donald C Cook	Nuclear	Indiana Michigan Power Co	2,093
3. Ludington	Hydro	Consumers Energy Co	1,872
4. Midland Cogeneration Venture	Petroleum, Gas	Midland Cogeneration Venture	1,817
5. Dan E Karn	Gas, Petroleum, Coal	Consumers Energy Co	1,791
6. St Clair	Gas, Petroleum, Coal	Detroit Edison Co	1,690
7. Belle River	Petroleum, Gas, Coal	Detroit Edison Co	1,499
8. J H Campbell	Petroleum, Coal	Consumers Energy Co	1,448
9. Fermi	Petroleum, Nuclear	Detroit Edison Co	1,162
10. Covert Generating Project	Petroleum, Nuclear	Covert Generating Co LLC	1.058

Table 3. Top Five Providers of Retail Electricity, 2003 (Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Michigan						
1. Detroit Edison Co	Investor-Owned	43,671,787	15,074,412	16,343,669	12,253,706	0
2. Consumers Energy Co	Investor-Owned	34,238,970	12,462,333	11,375,353	10,401,284	0
3. Quest Energy LLC	Power Marketer	3,740,248	0	2,020,644	1,719,604	0
4. Indiana Michigan Power Co	Investor-Owned	2,946,225	1,147,469	745,174	1,053,582	0
5. Wisconsin Electric Power Co	Investor-Owned	2,935,934	167,357	148,483	2,620,094	0
Total Sales, Top Five Providers		87,533,164	28,851,571	30,633,323	28,048,270	0
Percent of Total State Sales		80	86	87	70	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	ercentage Share	
Energy Source	1994 1998 2	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Michigan							
Electric Utilities	22,414	21,944	23,346	0.5	89.0	89.1	76.7
Coal	11,928	11,840	11,636	3	47.3	48.1	38.2
Petroleum	1,505	2,360	1,598	.7	6.0	9.6	5.2
Natural Gas	403	406	2,184	20.7	1.6	1.6	7.2
Other Gases	282	0	0	NM	1.1	.0	.0
Dual Fired	2,128	1,306	1,867	-1.4	8.4	5.3	6.1
Nuclear	3,967	3,918	3,971	*	15.7	15.9	13.0
Hydroelectric	329	241	218	-4.5	1.3	1.0	.7
Other Renewables	0	1	0	NM	.0	*	.0
Pumped Storage	1,872	1,872	1,872	.0	7.4	7.6	6.1
Independent Power Producers and Combined							
Heat and Power	2,777	2,675	7,106	11.0	11.0	10.9	23.3
Coal	654	358	354	-6.6	2.6	1.5	1.2
Petroleum	2	7	46	41.7	*	*	.2
Natural Gas	1,659	1,831	6,220	15.8	6.6	7.4	20.4
Dual Fired	79	41	89	1.3	.3	.2	.3
Hydroelectric	26	26	28	.8	.1	.1	.1
Other Renewables	357	412	369	.4	1.4	1.7	1.2
Total Electric Industry	25,191	24,616	30,450	2.1	100.0	100.0	100.0
Coal	12,583	12,197	11,989	5	49.9	49.5	39.4
Petroleum	1,507	2,368	1,644	1.0	6.0	9.6	5.4
Natural Gas	2,062	2,235	8,404	16.9	8.2	9.1	27.6
Other Gases	282	0	0	NM	1.1	.0	.0
Dual Fired	2,208	1,347	1,957	-1.3	8.8	5.5	6.4
Nuclear	3,967	3,918	3,971	*	15.7	15.9	13.0
Hydroelectric	354	267	245	-4.0	1.4	1.1	.8
Other Renewables	356	412	368	.4	1.4	1.7	1.2
Pumped Storage	1,872	1,872	1,872	.0	7.4	7.6	6.1

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Iichigan							
Electric Utilities	83,720,636	85,146,307	96,634,055	1.6	85.2	84.7	86.8
Coal	67,538,611	69,142,807	66,448,916	2	68.7	68.8	59.7
Petroleum	655,860	1,005,170	883,847	3.4	.7	1.0	.8
Natural Gas	656,757	2,152,055	1,098,627	5.9	.7	2.1	1.0
Nuclear	14,144,281	12,494,153	27,953,563	7.9	14.4	12.4	25.1
Hydroelectric	1,536,190	1,282,471	1,242,987	-2.3	1.6	1.3	1.1
Other Renewables	0	0	23,361	NM	.0	.0	*
Pumped Storage	-811,063	-930,349	-1,017,246	NM	8	9	9
Independent Power Producers and Combined							
Heat and Power	14,586,753	15,331,087	14,713,004	.1	14.8	15.3	13.2
Coal	2,233,005	1,329,850	1,328,567	-5.6	2.3	1.3	1.2
Petroleum	169,663	166,491	180,046	.7	.2	.2	.2
Natural Gas	9,779,792	10,933,125	10,275,917	.6	9.9	10.9	9.2
Other Gases	4,634	5,294	2,193	-8.0	*	*	*
Hydroelectric	124,078	114,647	142,837	1.6	.1	.1	.1
Other Renewables	2,260,274	2,762,052	2,783,445	2.3	2.3	2.7	2.5
Other	15,307	19,628	0	NM	*	*	.0
Total Electric Industry	98,307,389	100,477,394	111,347,060	1.4	100.0	100.0	100.0
Coal	69,771,616	70,472,657	67,777,483	3	71.0	70.1	60.9
Petroleum	825,523	1,171,661	1,063,893	2.9	.8	1.2	1.0
Natural Gas	10,436,549	13,085,180	11,374,544	1.0	10.6	13.0	10.2
Other Gases	4,634	5,294	2,193	-8.0	*	*	*
Nuclear	14,144,281	12,494,153	27,953,563	7.9	14.4	12.4	25.1
Hydroelectric	1,660,268	1,397,118	1,385,824	-2.0	1.7	1.4	1.2
Other Renewables	2,260,274	2,762,052	2,806,806	2.4	2.3	2.7	2.5
Pumped Storage	-811,063	-930,349	-1,017,246	NM	8	9	9
Other	15,307	19.628	0	NM	*	*	.0

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Michigan				
Coal (cents per million Btu)	150.6	133.4	134.5	-1.2
Average heat value (Btu per pound)	10,925	10,563	10,123	8
Average sulfur Content (percent)	.7	.7	.6	-2.0
Petroleum (cents per million Btu)	292.7	241.2	W	\mathbf{W}
Average heat value (Btu per gallon)	145,441	130,455	146,846	.1
Average sulfur Content (percent)	.7	1.6	1.7	9.4
Natural Gas (cents per million Btu)	240.2	232.4	386.2	5.4
Average heat value (Btu per cubic foot)	403	542	1.015	10.8

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Michigan				
Sulfur Dioxide				
Coal	386	392	335	-1.6
Petroleum	15	7	24	5.4
Natural Gas	*	*	*	-1.5
Other	4	2	5	3.2
Total	406	401	364	-1.2
Nitrogen Oxide				
Coal	302	200	117	-10.0
Petroleum	2	3	3	3.8
Gas	12	14	5	-9.9
Other	4	6	5	4.2
Total	320	222	130	-9.5
Carbon Dioxide				
Coal	67,815	70,030	65,246	4
Petroleum	1,293	1,701	1,478	1.5
Gas	6,087	7,733	5,968	2
Geothermal	_	_	_	NM
Other	104	117	586	21.2
Total	75,299	79,581	73,278	3

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Pe	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Michigan							
Retail Sales (thousand megawatthours)							
Residential	27,174	29,808	33,669	2.4	29.8	29.7	30.9
Commercial	30,412	33,840	35,391	1.7	33.4	33.7	32.5
Industrial	32,717	35,983	39,813	2.2	35.9	35.8	36.6
Other	857	875	NA	NM	.9	.9	NA
Transportation	NA	NA	3	NM	NA	NA	.0
Total	91,160	100,506	108,877	2.0	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	2,249	2,584	2,813	2.5	34.8	36.3	37.7
Commercial	2,411	2,642	2,672	1.1	37.3	37.1	35.8
Industrial	1,716	1,809	1,976	1.6	26.5	25.4	26.5
Other	90	94	NA	NM	1.4	1.3	NA
Total	6,467	7,129	7,461	1.6	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	8.28	8.67	8.35	.1	NA	NA	NA
Commercial	7.93	7.81	7.55	5	NA	NA	NA
Industrial	5.25	5.03	4.96	6	NA	NA	NA
Other	10.54	10.74	NA	NM	NA	NA	NA
Transportation	NA	NA	8.21	NM	NA	NA	NA
Total	7.09	7.09	6.85	4	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other P				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Michigan								
Number of Entities	9	41	NA	10	5	12	2	79
Number of Retail Customers	4,136,049	299,378	NA	277,906	5	628	NA	4,713,966
Retail Sales (thousand megawatthours)	85,961	7,881	NA	2,817	2,106	10,112	NA	108,877
Percentage of Retail Sales	78.95	7.24	NA	2.59	1.93	9.29	NA	100.00
Revenue from Retail Sales (million dollars)	6,035	536	NA	255	129	455	51	7,461
Percentage of Revenue	80.89	7.18	NA	3.42	1.73	6.09	.69	100.00
Average Retail Price (cents/kWh)	7.02	6.79	NA	9.06	6.14	4.50	.51	6.85

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Minnesota		
NERC Region(s)		MAPP
Primary Energy Source		Coal
Net Summer Capability (megawatts)	11,486	30
Electric Utilities	10,163	24
Independent Power Producers & Combined Heat and Power	1,322	37
Net Generation (megawatthours)	55,050,995	25
Electric Utilities	49,576,276	20
Independent Power Producers & Combined Heat and Power	5,474,719	33
Emissions (thousand metric tons)		
Sulfur Dioxide	113	24
Nitrogen Oxide	94	16
Carbon Dioxide	39,637	25
Sulfur Dioxide (lbs/MWh)	4.5	26
Nitrogen Oxide (lbs/MWh)	3.8	14
Carbon Dioxide (lbs/MWh)	1,587	18
Total Retail Sales (megawatthours)	63,087,339	24
Full Service Provider Sales (megawatthours)	63,087,339	23
Direct Use (megawatthours)	2,928,218	15
Average Retail Price (cents/kWh)	6.01	39

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Minnesota			
1. Sherburne County	Petroleum, Coal	Northern States Power Co	2,302
2. Prairie Island	Nuclear	Northern States Power Co	1,044
3. Clay Boswell	Petroleum, Coal	Minnesota Power Inc	914
4. Allen S King	Gas, Petroleum, Coal	Northern States Power Co	573
5. Monticello	Nuclear	Northern States Power Co	569
6. Black Dog	Gas, Coal	Northern States Power Co	566
7. Lakefield Junction	Petroleum, Gas	Great River Energy	525
8. Pleasant Valley	Petroleum, Gas	Great River Energy	423
9. Riverside	Gas, Petroleum, Coal	Northern States Power Co	387
10. Inver Hills	Petroleum, Gas	Northern States Power Co	361

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership	All Sectors	Residential	Commercial	Industrial	Transportation
Zintity	Type	TIM Sectors	11051410111111		22244502244	
Minnesota						
Northern States Power Co	Investor-Owned	30,417,980	8,482,572	12,547,929	9,387,479	0
2. Minnesota Power Inc	Investor-Owned	8,425,421	978,743	1,232,503	6,214,175	0
3. Otter Tail Power Co	Investor-Owned	1,897,708	509,490	1,004,708	383,510	0
4. Anoka Electric Coop	Cooperative	1,759,978	1,040,821	592,477	126,680	0
5. Dakota Electric Assn	Cooperative	1,676,237	853,816	317,465	504,956	0
Total Sales, Top Five Providers	-	44,177,324	11,865,442	15,695,082	16,616,800	0
Percent of Total State Sales		70	57	76	76	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual		Percentage Share	e
Energy Source	1994	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
linnesota							
Electric Utilities	8,951	9,089	10,163	1.4	93.6	89.8	88.5
Coal	5,742	5,657	5,342	8	60.0	55.9	46.5
Petroleum.	909	961	581	-4.9	9.5	9.5	5.1
Natural Gas	179	292	539	13.0	1.9	2.9	4.7
Dual Fired		264	1,826	20.9	3.5	2.6	15.9
Nuclear	1,564	1,630	1,613	.3	16.4	16.1	14.0
Hydroelectric		139	133	7	1.5	1.4	1.2
Other Renewables	85	146	129	4.7	.9	1.4	1.1
Independent Power Producers and Combined Heat and Power Coal	345 16 32 20 64 137	1,030 344 24 42 265 64 291 0	1,322 358 26 133 172 43 579	8.9 .4 5.5 17.2 27.0 -4.3 17.4 NM	6.4 3.6 .2 .3 .2 .7 1.4	10.2 3.4 .2 .4 2.6 .6 2.9	11.5 3.1 .2 1.2 1.5 .4 5.0
Total Electric Industry	9,562	10,117	11,486	2.1	100.0	100.0	100.0
Coal		6,001	5,701	7	63.6	59.3	49.6
Petroleum		985	607	-4.6	9.7	9.7	5.3
Natural Gas		334	672	13.8	2.2	3.3	5.9
Dual Fired	349	528	1,998	21.4	3.6	5.2	17.4
Nuclear	1,564	1,630	1,613	.3	16.4	16.1	14.0
Hydroelectric	206	203	176	-1.7	2.2	2.0	1.5
Other Renewables	222	436	708	13.8	2.3	4.3	6.2
Other	0	0	11	NM	.0	.0	.1

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
Iinnesota									
Electric Utilities	40,917,280	43,976,935	49,576,276	2.2	93.2	91.6	90.1		
Coal	26,399,834	29,884,402	33,157,032	2.6	60.1	62.2	60.2		
Petroleum	596,987	649,866	845,239	3.9	1.4	1.4	1.5		
Natural Gas	451,625	652,432	1,072,867	10.1	1.0	1.4	1.9		
Nuclear	12,223,620	11,644,106	13,413,828	1.0	27.8	24.3	24.4		
Hydroelectric	831,074	694,836	686,227	-2.1	1.9	1.4	1.2		
Other Renewables	414,140	451,293	401,083	4	.9	.9	.7		
Independent Power Producers and Combined Heat and Power	2,980,375	4,040,970	5,474,720	7.0	6.8	8.4	9.9		
Coal	1,725,869	1,922,475	2,498,497	4.2	3.9	4.0	4.5		
Petroleum	10,713	17,405	27,826	11.2	*	*	.1		
Natural Gas	205,232	943,600	771,569	15.9	.5	2.0	1.4		
Hydroelectric	307,659	259,807	128,346	-9.3	.7	.5	.2		
Other Renewables	730,902	897,683	2,009,833	11.9	1.7	1.9	3.1		
Other	0	0	38,650	NM	.0	.0	.1		
Total Electric Industry	43,897,655	48,017,905	55,050,995	2.5	100.0	100.0	100.0		
Coal	28,125,703	31,806,877	35,655,529	2.7	64.1	66.2	64.8		
Petroleum	607,700	667,271	873,065	4.1	1.4	1.4	1.0		
Natural Gas	656,857	1,596,032	1,844,436	12.2	1.5	3.3	3.3		
Nuclear	12,223,620	11,644,106	13,413,828	1.0	27.8	24.3	24.4		
Hydroelectric	1,138,733	954,643	814,573	-3.7	2.6	2.0	1.:		
Other Renewables	1,145,042	1,348,976	2,410,916	8.6	2.6	2.8	4.4		
Other	0	0	38,650	NM	.0	.0			

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Minnesota				
Coal (cents per million Btu)	113.9	106.9	W	W
Average heat value (Btu per pound)	8,821	8,883	8,895	0.1
Average sulfur Content (percent)	.5	.4	.5	1
Petroleum (cents per million Btu)	85.5	74.5	W	W
Average heat value (Btu per gallon)	73,031	72,783	133,093	6.9
Average sulfur Content (percent)	5.2	5.4	5.7	1.1
Natural Gas (cents per million Btu)	213.1	233.8	\mathbf{W}	W
Average heat value (Btu per cubic foot)	1,005	1.008	1,007	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Minnesota				
Sulfur Dioxide				
Coal	117	127	83	-3.7
Petroleum	*	*	27	83.0
Natural Gas	_	_	*	NM
Other	8	2	3	-12.5
Total	126	130	113	-1.2
Nitrogen Oxide				
Coal	167	92	86	-7.1
Petroleum	*	*	3	47.9
Gas	2	2	2	-1.7
Other	4	4	4	9
Total	173	98	94	-6.5
Carbon Dioxide				
Coal	31,830	33,771	37,048	1.7
Petroleum	644	717	881	3.5
Gas	881	1,402	1,220	3.7
Geothermal	_	_	_	NM
Other	52	46	487	28.2
Total	33,407	35,936	39,637	1.9

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Minnesota							
Retail Sales (thousand megawatthours)							
Residential	16,007	17,378	20,638	2.9	31.3	30.6	32.7
Commercial	8,997	10,436	20,533	9.6	17.6	18.4	32.5
Industrial	25,451	28,214	21,916	-1.6	49.8	49.7	34.7
Other	701	716	NA	NM	1.4	1.3	NA
Total	51,155	56,744	63,087	2.4	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,146	1,273	1,579	3.6	39.8	39.3	41.6
Commercial	562	656	1,257	9.4	19.5	20.3	33.2
Industrial	1,122	1,257	955	-1.8	39.0	38.8	25.2
Other	51	54	NA	NM	1.8	1.7	NA
Total	2,880	3,239	3,791	3.1	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.16	7.33	7.65	.7	NA	NA	NA
Commercial	6.25	6.28	6.12	2	NA	NA	NA
Industrial	4.41	4.45	4.36	1	NA	NA	NA
Other	7.21	7.48	NA	NM	NA	NA	NA
Total	5.63	5.71	6.01	.7	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers						Other Providers		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total	
Minnesota									
Number of Entities	5	125	1	47	1	NA	NA	179	
Number of Retail Customers	1,398,351	336,550	5	675,996	1	NA	NA	2,410,903	
Retail Sales (thousand megawatthours)	41,531	8,889	54	12,028	586	NA	NA	63,087	
Percentage of Retail Sales	65.83	14.09	.09	19.07	.93	NA	NA	100.00	
Revenue from Retail Sales (million dollars)	2,379	547	1	847	17	NA	NA	3,791	
Percentage of Revenue	62.77	14.44	.02	22.34	.44	NA	NA	100.00	
Average Retail Price (cents/kWh)	5.73	6.16	1.36	7.04	2.85	NA	NA	6.01	

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Mississippi		
NERC Region(s)		SERC/SPP
Primary Energy Source		Coal
Net Summer Capability (megawatts)	17,282	23
Electric Utilities	9,279	26
Independent Power Producers & Combined Heat and Power	8,005	11
Net Generation (megawatthours)	40,148,278	34
Electric Utilities	31,358,938	31
Independent Power Producers & Combined Heat and Power	8,789,340	26
Emissions (thousand metric tons)		
Sulfur Dioxide	86	26
Nitrogen Oxide	47	32
Carbon Dioxide	23,428	34
Sulfur Dioxide (lbs/MWh)	4.7	23
Nitrogen Oxide (lbs/MWh)	2.6	26
Carbon Dioxide (lbs/MWh)	1,286	32
Total Retail Sales (megawatthours)	45,543,881	28
Full Service Provider Sales (megawatthours)	45,543,881	28
Direct Use (megawatthours)	2,382,755	21
Average Retail Price (cents/kWh)	6.46	27

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Mississippi			
1. Victor J Daniel Jr	Petroleum, Gas, Coal	Mississippi Power Co	2,136
2. Grand Gulf	Nuclear	Entergy Operations Inc	1,263
3. Baxter Wilson	Petroleum, Gas	Entergy Mississippi Inc	1,200
4. Jack Watson	Gas, Coal	Mississippi Power Co	1,074
5. Magnolia Power Plant	Gas	InterGen North America	863
Batesville Generation Facility	Gas	LSP Energy Ltd Partnership	858
7. Caledonia	Gas	Caledonia Operating Serv LLC	783
8. Southaven Energy LLC	Gas	Southhaven Operating Services, LLC	783
9. Gerald Andrus	Gas, Petroleum	Entergy Mississippi Inc	741
10. Reliant Energy Choctaw County	Gas	Reliant Energy Power Gen Inc	726

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Mississippi	VF.					
1. Entergy Mississippi Inc	Investor-Owned	12,891,221	5,091,849	4,860,291	2,939,081	0
2. Mississippi Power Co	Investor-Owned	9,320,667	2,255,445	2,954,023	4,111,199	0
3. Tennessee Valley Authority	Federal	3,212,150	0	0	3,212,150	0
4. Southern Pine Elec Pwr Assn	Cooperative	1,761,370	879,602	248,431	633,337	0
5. Coast Electric Power Assn	Cooperative	1,459,442	987,196	251,848	220,398	0
Total Sales, Top Five Providers	-	28,644,850	9,214,092	8,314,593	11,116,165	0
Percent of Total State Sales		63	52	66	73	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	Percentage Share	
Energy Source	1994 1998	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003 53.7 12.9 .2 14.9 18.4 7.3 46.3 2.5 .0 42.1 * 1.6 100.0 15.5 .2
Iississippi							
Electric Utilities	7,114	7,157	9,279	3.0	95.2	94.9	53.7
Coal	2,228	2,136	2,231	*	29.8	28.3	12.9
Petroleum	31	40	36	1.7	.4	.5	.2
Natural Gas	593	665	2,570	17.7	7.9	8.8	14.9
Dual Fired.	3,119	3,112	3,179	.2	41.7	41.3	18.4
Nuclear	1,143	1,204	1,263	1.1	15.3	16.0	7.3
Independent Power Producers and Combined Heat and Power Coal	363 0 1 68 0 294	383 0 1 119 0 263	8,005 440 0 7,282 4 279	41.0 NM NM 68.1 NM 6	4.9 .0 * .9 .0 3.9	5.1 .0 * 1.6 .0 3.5	2.5 .0 42.1
Total Electric Industry	7,476	7,540	17,282	9.8	100.0	100.0	100.0
Coal	2,228	2,136	2,671	2.0	29.8	28.3	15.5
Petroleum	32	42	36	1.3	.4	.6	.2
Natural Gas	660	783	9,850	35.0	8.8	10.4	57.0
Other Gases	0	0	4	NM	.0	.0	*
Dual Fired	3,119	3,112	3,179	.2	41.7	41.3	18.4
Nuclear	1,143	1,204	1,263	1.1	15.3	16.0	7.3
Other Renewables	294	263	279	6	3.9	3.5	1.6

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	I	Percentage Shar	e
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Aississippi							
Electric Utilities	26,222,313	31,991,676	31,358,938	2.0	91.5	93.0	78.1
Coal	8,889,624	11,747,963	13,742,273	5.0	31.0	34.1	34.2
Petroleum	1,106,209	5,417,924	1,620,395	4.3	3.9	15.7	4.0
Natural Gas	6,611,781	5,635,261	5,093,814	-2.9	23.1	16.4	12.7
Nuclear	9,614,699	9,190,528	10,902,456	1.4	33.5	26.7	27.2
Independent Power Producers and Combined							
Heat and Power	2,448,185	2,417,380	8,789,340	15.3	8.5	7.0	21.9
Coal	57,350	31,580	3,340,331	57.1	.2	.1	8.3
Petroleum	17,946	7,298	11,461	-4.9	.1	*	*
Natural Gas	611,603	941,711	4,383,419	24.5	2.1	2.7	10.9
Other Gases	0	0	31,799	NM	.0	.0	.1
Other Renewables	1,761,286	1,436,791	1,022,331	-5.9	6.1	4.2	2.5
Total Electric Industry	28,670,498	34,409,056	40,148,278	3.8	100.0	100.0	100.0
Coal	8,946,974	11,779,543	17,082,604	7.5	31.2	34.2	42.5
Petroleum	1,124,155	5,425,222	1,631,856	4.2	3.9	15.8	4.1
Natural Gas	7,223,384	6,576,972	9,477,233	3.1	25.2	19.1	23.6
Other Gases	0	0	31,799	NM	.0	.0	.1
Nuclear	9,614,699	9,190,528	10,902,456	1.4	33.5	26.7	27.2
Other Renewables	1,761,286	1,436,791	1,022,331	-5.9	6.1	4.2	2.5

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Mississippi				
Coal (cents per million Btu)	157.1	153.8	W	W
Average heat value (Btu per pound)	11,312	10,569	9,235	-2.2
Average sulfur Content (percent)	1.0	.7	.6	-5.9
Petroleum (cents per million Btu)	164.1	199.2	411.9	10.8
Average heat value (Btu per gallon)	152,706	157,170	155,337	.2
Average sulfur Content (percent)	2.4	2.8	2.8	1.8
Natural Gas (cents per million Btu)	189.8	222.1	556.5	12.7
Average heat value (Btu per cubic foot)	1,043	1,039	1,036	1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Mississippi				
Sulfur Dioxide				
Coal	70	68	62	-1.4
Petroleum	14	65	12	-1.8
Natural Gas	*	*	*	.4
Other	16	9	12	-3.2
Total	100	143	86	-1.7
Nitrogen Oxide				
Coal	35	27	32	7
Petroleum	2	15	6	16.6
Gas	14	17	5	-10.6
Other	4	3	3	-3.0
Total	54	61	47	-1.6
Carbon Dioxide				
Coal	8,488	11,446	16,428	7.6
Petroleum	901	4,329	1,326	4.4
Gas	5,696	5,493	5,673	*
Geothermal	_	_	_	NM
Other	_	_	1	NM
Total	15,085	21,268	23,428	5.0

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Po	ercentage Shai	e
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Mississippi							
Retail Sales (thousand megawatthours)							
Residential	13,642	16,392	17,670	2.9	37.3	38.6	38.8
Commercial	7,094	10,781	12,593	6.6	19.4	25.4	27.6
Industrial	15,256	14,599	15,281	*	41.6	34.3	33.5
Other	635	738	NA	NM	1.7	1.7	NA
Total	36,627	42,510	45,544	2.4	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	964	1,152	1,343	3.8	43.5	45.3	45.7
Commercial	512	713	913	6.6	23.1	28.0	31.0
Industrial	684	616	684	.0	30.9	24.2	23.3
Other	55	62	NA	NM	2.5	2.4	NA
Total	2,215	2,543	2,940	3.2	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.06	7.03	7.60	.8	NA	NA	NA
Commercial	7.22	6.62	7.25	*	NA	NA	NA
Industrial	4.48	4.22	4.48	.0	NA	NA	NA
Other	8.60	8.45	NA	NM	NA	NA	NA
Total	6.05	5.98	6.46	.7	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pro	Other Providers				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Mississippi								
Number of Entities	2	23	1	25	NA	NA	NA	51
Number of Retail Customers	605,653	131,787	7	683,124	NA	NA	NA	1,420,571
Retail Sales (thousand megawatthours)	22,212	4,192	3,212	15,928	NA	NA	NA	45,544
Percentage of Retail Sales	48.77	9.20	7.05	34.97	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	1,475	265	95	1,106	NA	NA	NA	2,940
Percentage of Revenue	50.15	9.01	3.23	37.61	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	6.64	6.32	2.96	6.94	NA	NA	NA	6.46

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Missouri		
NERC Region(s)		SPP/MAIN
Primary Energy Source		Coal
Net Summer Capability (megawatts)	19,976	19
Electric Utilities	18,587	13
Independent Power Producers & Combined Heat and Power	1,391	36
Net Generation (megawatthours)	87,225,087	20
Electric Utilities	86,102,107	11
Independent Power Producers & Combined Heat and Power	1,122,980	43
Emissions (thousand metric tons)		
Sulfur Dioxide	258	16
Nitrogen Oxide	136	11
Carbon Dioxide	75,640	11
Sulfur Dioxide (lbs/MWh)	6.5	18
Nitrogen Oxide (lbs/MWh)	3.4	16
Carbon Dioxide (lbs/MWh)	1,912	13
Total Retail Sales (megawatthours)	74,239,888	20
Full Service Provider Sales (megawatthours)	74,239,888	19
Direct Use (megawatthours).	304,828	41
Average Retail Price (cents/kWh)	6.02	38

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Missouri			
1. Labadie	Petroleum, Coal	Union Electric Co	2,421
2. Rush Island	Petroleum, Coal	Union Electric Co	1,194
3. New Madrid	Petroleum, Coal	Associated Electric Coop Inc	1,160
4. Callaway	Nuclear	Union Electric Co	1,137
5. Thomas Hill	Petroleum, Coal	Associated Electric Coop Inc	1,120
6. Hawthorn	Gas, Coal	Kansas City Power & Light Co	988
7. Sioux	Petroleum, Other, Coal	Union Electric Co	978
8. Meramec	Petroleum, Gas, Coal	Union Electric Co	876
9. Iatan	Petroleum, Coal	Kansas City Power & Light Co	670
10. Audrain Generating Station	Petroleum, Coal	NRG South Central Ops Inc	640

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

	1					
Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Missouri						
1. Union Electric Co	Investor-Owned	31,901,036	12,354,426	13,508,824	6,037,786	0
2. Kansas City Power & Light Co	Investor-Owned	8,256,870	2,448,487	4,156,077	1,652,306	0
3. Aquila Inc	Investor-Owned	7,043,933	3,100,495	2,671,130	1,272,308	0
4. Empire District Electric Co	Investor-Owned	3,774,381	1,526,076	1,375,511	872,794	0
5. Springfield City of	Public	2,813,462	878,728	1,456,169	478,565	0
Total Sales, Top Five Providers		53,789,682	20,308,212	23,167,711	10,313,759	0
Percent of Total State Sales		72	65	83	70	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	ercentage Share	
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Iissouri							
Electric Utilities	15,488	16,282	18,587	2.0	99.3	99.4	93.0
Coal	10,754	10,943	11,172	.4	68.9	66.8	55.9
Petroleum	1,035	1,072	1,144	1.1	6.6	6.5	5.7
Natural Gas	312	601	1,494	19.0	2.0	3.7	7.5
Dual Fired	1,162	1,323	2,427	8.5	7.4	8.1	12.1
Nuclear	1,115	1,143	1,137	.2	7.1	7.0	5.7
Hydroelectric	543	543	556	.3	3.5	3.3	2.8
Pumped Storage	567	657	657	1.6	3.6	4.0	3.3
Independent Power Producers and Combined							
Heat and Power	111	105	1,391	32.4	.7	.6	7.0
Coal	96	93	96	.0	.6	.6	.5
Petroleum	8	9	11	3.6	.1	.1	.1
Natural Gas	3	3	1,261	95.7	*	*	6.3
Dual Fired	4	0	23	21.5	*	.0	.1
Total Electric Industry	15,599	16,387	19,976	2.8	100.0	100.0	100.0
Coal	10,851	11,036	11,267	.4	69.6	67.3	56.4
Petroleum	1,043	1,081	1,154	1.1	6.7	6.6	5.8
Natural Gas	315	604	2,755	27.2	2.0	3.7	13.8
Dual Fired	1,165	1,323	2,450	8.6	7.5	8.1	12.3
Nuclear	1,115	1,143	1,137	.2	7.1	7.0	5.7
Hydroelectric	543	543	556	.3	3.5	3.3	2.8
Pumped Storage	567	657	657	1.6	3.6	4.0	3.3

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	1	Percentage Share	è
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Iissouri							
Electric Utilities	61,519,090	74,894,188	86,102,107	3.8	99.4	99.6	98.7
Coal	48,592,766	62,488,551	73,904,272	4.8	78.5	83.1	84.7
Petroleum	730,820	309,734	155,968	-15.8	1.2	.4	.2
Natural Gas	338,101	1,232,461	1,820,848	20.6	.5	1.6	2.1
Other Gases	0	0	1,652	NM	.0	.0	*
Nuclear	10,006,491	8,516,773	9,699,589	3	16.2	11.3	11.1
Hydroelectric	1,916,293	2,346,585	652,477	-11.3	3.1	3.1	.7
Other Renewables	6,776	77,787	121,291	37.8	*	.1	.1
Pumped Storage	-72,157	-77,703	-253,991	NM	1	1	3
Independent Power Producers and Combined							
Heat and Power	358,588	293,158	1,122,980	13.5	.6	.4	1.3
Coal	292,853	237,625	307,512	.5	.5	.3	.4
Petroleum	14,395	12,087	946	-26.1	*	*	*
Natural Gas	51,201	32,349	803,502	35.8	.1	*	.9
Other Renewables	139	11,097	11,021	62.6	.0	*	*
Total Electric Industry	61,877,678	75,187,346	87,225,087	3.9	100.0	100.0	100.0
Coal	48,885,619	62,726,176	74,211,784	4.7	79.0	83.4	85.1
Petroleum	745,215	321,821	156,914	-15.9	1.2	.4	.2
Natural Gas	389,302	1,264,810	2,624,350	23.6	.6	1.7	3.0
Other Gases	0	0	1,652	NM	.0	.0	*
Nuclear	10,006,491	8,516,773	9,699,589	3	16.2	11.3	11.1
Hydroelectric	1,916,293	2,346,585	652,477	-11.3	3.1	3.1	.7
Other Renewables	6,915	88,884	132,312	38.8	*	.1	.2
Pumped Storage	-72,157	-77,703	-253,991	NM	1	1	3

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Missouri				
Coal (cents per million Btu)	110.1	91.7	W	W
Average heat value (Btu per pound)	9,718	8,938	8,865	-1.0
Average sulfur Content (percent)	1.0	.4	.4	-10.8
Petroleum (cents per million Btu)	100.8	118.2	W	W
Average heat value (Btu per gallon)	79,641	89,642	137,769	6.3
Average sulfur Content (percent)	3.6	4.1	2.4	-4.4
Natural Gas (cents per million Btu)	189.7	223.4	W	W
Average heat value (Btu per cubic foot)	1,000	1.011	1.016	.2

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Aissouri				
Sulfur Dioxide				
Coal	487	259	255	-7.0
Petroleum	6	2	2	-12.1
Natural Gas	_	*	*	NM
Other	_	*	2	NM
Total	493	261	258	-6.9
Nitrogen Oxide				
Coal	255	194	135	-6.8
Petroleum	2	*	*	-25.5
Gas	1	2	1	-2.7
Other	_	*	*	NM
Total	258	197	136	-6.8
Carbon Dioxide				
Coal	48,910	64,532	74,182	4.7
Petroleum	807	310	155	-16.8
Gas	295	914	1,191	16.8
Geothermal	_	_	_	NM
Other	_	_	112	NM
Total	50,011	65,757	75,640	4.7

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Shai	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Missouri							
Retail Sales (thousand megawatthours)							
Residential	24,057	28,265	31,422	3.0	40.3	41.0	42.3
Commercial	20,614	23,920	27,987	3.5	34.5	34.7	37.7
Industrial	14,106	15,801	14,831	.6	23.6	22.9	20.0
Other	916	1,024	NA	NM	1.5	1.5	NA
Total	59,693	69,010	74,240	2.4	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,754	2,001	2,186	2.5	46.8	47.7	48.9
Commercial	1,278	1,432	1,618	2.7	34.1	34.1	36.2
Industrial	652	699	667	.3	17.4	16.6	14.9
Other	65	64	NA	NM	1.7	1.5	NA
Total	3,749	4,197	4,470	2.0	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.29	7.08	6.96	5	NA	NA	NA
Commercial	6.20	5.99	5.78	8	NA	NA	NA
Industrial	4.62	4.43	4.49	3	NA	NA	NA
Other	7.07	6.25	NA	NM	NA	NA	NA
Total	6.28	6.08	6.02	5	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	oviders		Other 1	Providers	
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Missouri								
Number of Entities	4	88	NA	44	1	NA	NA	137
Number of Retail Customers	1,858,353	394,720	NA	665,489	1	NA	NA	2,918,563
Retail Sales (thousand megawatthours)	50,976	10,295	NA	12,949	20	NA	NA	74,240
Percentage of Retail Sales	68.66	13.87	NA	17.44	.03	NA	NA	100.00
Revenue from Retail Sales (million dollars)	3,063	592	NA	814	1	NA	NA	4,470
Percentage of Revenue	68.51	13.25	NA	18.22	.02	NA	NA	100.00
Average Retail Price (cents/kWh)	6.01	5.75	NA	6.29	3.47	NA	NA	6.02

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Montana		
NERC Region(s)		WECC/MAPP
Primary Energy Source		Coal
Net Summer Capability (megawatts)	5,210	40
Electric Utilities	2,273	39
Independent Power Producers & Combined Heat and Power	2,937	29
Net Generation (megawatthours)	26,268,726	41
Electric Utilities	6,020,681	41
Independent Power Producers & Combined Heat and Power	20,248,045	13
Emissions (thousand metric tons)		
Sulfur Dioxide	23	40
Nitrogen Oxide	37	36
Carbon Dioxide	18,659	38
Sulfur Dioxide (lbs/MWh)	1.9	40
Nitrogen Oxide (lbs/MWh)	3.1	20
Carbon Dioxide (lbs/MWh)	1,566	19
Total Retail Sales (megawatthours)	12,824,660	41
Full Service Provider Sales (megawatthours)	10,282,211	45
Deregulated Sales (megawatthours)	2,542,449	12
Direct Use (megawatthours)	155,230	45
Average Retail Price (cents/kWh)	6.14	35

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Montana			
1. Colstrip	Gas, Petroleum, Coal	PPL Montana LLC	2,094
2. Libby	Hydro	USCE-North Pacific Division	604
3. Noxon Rapids	Hydro	Avista Corporation	537
4. Hungry Horse	Hydro	U S Bureau of Reclamation	428
5. Yellowtail	Hydro	U S Bureau of Reclamation	287
6. Kerr	Hydro	PPL Montana LLC	212
7. Fort Peck	Hydro	USCE-Missouri River District	204
8. J E Corette Plant	Gas, Coal	PPL Montana LLC	154
9. Thompson Falls	Hydro	PPL Montana LLC	88
10. Glendive GT	Petroleum, Gas	MDU Resources Group Inc	73

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Montana						
NorthWestern Energy LLC PPL EnergyPlus LLC	Investor-Owned Power Marketer	5,152,525 1,858,138	2,087,715	2,694,626 0	370,184 1,858,138	0
3. Flathead Electric Coop Inc	Cooperative Power Marketer Investor-Owned	1,287,770 642,551 613,091 9,554,075	523,003 0 155,158 2.765,876	377,874 0 220,028 3,292,528	386,893 642,551 237,905 3,495,671	0 0 0
Percent of Total State Sales		75	67	74	82	0

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	Percentage Share	
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Iontana							
Electric Utilities	4,906	4,944	2,273	-8.2	98.8	97.6	43.6
Coal	2,260	2,300	52	-34.2	45.5	45.4	1.0
Petroleum	0	5	0	NM	.0	.1).
Natural Gas	70	0	0	NM	1.4	.0).
Dual Fired	50	52	97	7.6	1.0	1.0	1.9
Hydroelectric	2,514	2,587	2,124	-1.9	50.6	51.1	40.8
Other Renewables	12	0	0	NM	.2	.0).
Independent Power Producers and Combined							
Heat and Power	60	121	2,937	54.1	1.2	2.4	56.4
Coal	39	39	2,248	56.9	.8	.8	43.1
Petroleum	0	61	90	NM	.0	1.2	1.7
Hydroelectric	11	11	588	55.6	.2	.2	11.3
Other Renewables	10	10	11	1.1	.2	.2	.2
Total Electric Industry	4,967	5,065	5,210	.5	100.0	100.0	100.0
Coal	2,299	2,339	2,300	*	46.3	46.2	44.1
Petroleum	0	66	90	NM	.0	1.3	1.7
Natural Gas	70	0	0	NM	1.4	.0).
Dual Fired	50	52	97	7.6	1.0	1.0	1.9
Hydroelectric	2,525	2,598	2,712	.8	50.8	51.3	52.
Other Renewables	23	10	11	-7.9	.5	.2	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Montana							
Electric Utilities	24,705,228	27,616,913	6,020,681	-14.5	98.2	97.0	22.9
Coal	16,487,675	16,507,968	322,205	-35.4	65.5	58.0	1.2
Petroleum	18,421	14,344	1,482	-24.4	.1	*	*
Natural Gas	60,784	40,953	17,997	-12.6	.2	.1	.1
Hydroelectric	8,096,388	11,053,648	5,678,997	-3.9	32.2	38.8	21.6
Other Renewables	41,960	0	0	NM	.2	.0	.0
Independent Power Producers and Combined Heat and Power	447,621	843,605	20,248,046	52.7	1.8	3.0	77.1
Coal	321,714	276,818	16,726,430	55.1	1.3	1.0	63.7
Petroleum	1,701	412,387	400,682	83.5	*	1.4	1.5
Natural Gas	12,442	14,823	7,471	-5.5	*	.1	*
Other Gases	0	31,136	19,520	NM	.0	.1	.1
Hydroelectric	53,119	64,292	3,022,775	56.7	.2	.2	11.5
Other Renewables	58,645	44,149	71,168	2.2	.2	.2	.3
Total Electric Industry	25,152,849	28,460,518	26,268,726	.5	100.0	100.0	100.0
Coal	16,809,389	16,784,786	17,048,635	.2	66.8	59.0	64.9
Petroleum	20,122	426,731	402,164	39.5	.1	1.5	1.5
Natural Gas	73,226	55,776	25,468	-11.1	.3	.2	.1
Other Gases	0	31,136	19,520	NM	.0	.1	.1
Hydroelectric	8,149,507	11,117,940	8,701,772	.7	32.4	39.1	33.1
Other Renewables	100,605	44,149	71,168	-3.8	.4	.2	.3

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Montana				
Coal (cents per million Btu)	69.3	67.4	W	W
Average heat value (Btu per pound)	8,500	8,433	8,515	*
Average sulfur Content (percent)	.7	.7	.6	-0.6
Petroleum (cents per million Btu)	462.9	466.0	W	\mathbf{W}
Average heat value (Btu per gallon)	141,000	141,000	136,574	4
Average sulfur Content (percent)	.0	.0	.5	NM
Natural Gas (cents per million Btu)	114.9	191.8	W	\mathbf{W}
Average heat value (Btu per cubic foot)	1,055	1.072	1,123	.7

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Montana				
Sulfur Dioxide				
Coal	19	18	16	-2.1
Petroleum	*	24	2	58.5
Natural Gas	_	_	_	NM
Other	1	2	5	19.8
Total	20	44	23	1.4
Nitrogen Oxide				
Coal	82	38	33	-9.6
Petroleum	*	1	1	62.4
Gas	*	*	*	-6.9
Other	*	1	3	26.5
Total	82	40	37	-8.5
Carbon Dioxide				
Coal	17,709	17,735	17,898	.1
Petroleum	24	696	703	45.6
Gas	93	206	58	-5.1
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	17,825	18,637	18,659	.5

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	ire
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Montana							
Retail Sales (thousand megawatthours)							
Residential	3,567	3,722	4,120	1.6	27.1	26.3	32.1
Commercial	3,096	3,313	4,438	4.1	23.5	23.4	34.6
Industrial	5,961	6,774	4,267	-3.6	45.2	47.9	33.3
Other	561	335	NA	NM	4.3	2.4	NA
Total	13,184	14,145	12,825	3	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	213	242	311	4.3	35.9	35.7	39.5
Commercial	160	195	304	7.4	26.9	28.8	38.6
Industrial	196	221	172	-1.4	33.0	32.6	21.9
Other	25	20	NA	NM	4.2	2.9	NA
Total	594	678	787	3.2	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	5.96	6.50	7.56	2.7	NA	NA	NA
Commercial	5.17	5.87	6.85	3.2	NA	NA	NA
Industrial	3.30	3.19	4.03	2.3	NA	NA	NA
Other	4.49	6.07	NA	NM	NA	NA	NA
Total	4.51	4.80	6.14	3.5	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	Service Pro	viders		Other P	roviders	
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Montana								
Number of Entities	5	1	3	30	NA	4	1	44
Number of Retail Customers	325,008	923	18,652	172,439	NA	1,358	NA	518,380
Retail Sales (thousand megawatthours)	6,423	14	572	3,274	NA	2,542	NA	12,825
Percentage of Retail Sales	50.08	.11	4.46	25.53	NA	19.82	NA	100.00
Revenue from Retail Sales (million dollars)	431	1	24	228	NA	89	14	787
Percentage of Revenue	54.77	.10	3.09	28.94	NA	11.33	1.78	100.00
Average Retail Price (cents/kWh)	6.71	5.59	4.26	6.96	NA	3.51	.55	6.14

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Nebraska		
NERC Region(s)		WECC/MAPP
Primary Energy Source		Coal
Net Summer Capability (megawatts)	6,685	36
Electric Utilities	6,667	29
Independent Power Producers & Combined Heat and Power	17	51
Net Generation (megawatthours)	30,455,984	39
Electric Utilities	30,367,879	33
Independent Power Producers & Combined Heat and Power	88,105	49
Emissions (thousand metric tons)		
Sulfur Dioxide	63	32
Nitrogen Oxide	46	33
Carbon Dioxide	21,376	36
Sulfur Dioxide (lbs/MWh)	4.6	25
Nitrogen Oxide (lbs/MWh)	3.3	18
Carbon Dioxide (lbs/MWh)	1,547	20
Total Retail Sales (megawatthours)	25,856,566	36
Full Service Provider Sales (megawatthours)	25,856,566	36
Direct Use (megawatthours)	72,037	46
Average Retail Price (cents/kWh)	5.64	43

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Nebraska			·
1. Gerald Gentleman	Gas, Coal	Nebraska Public Power District	1,365
2. Cooper	Nuclear	Nebraska Public Power District	757
3. North Omaha	Gas, Coal	Omaha Public Power District	663
4. Nebraska City	Petroleum, Coal	Omaha Public Power District	646
5. Fort Calhoun	Nuclear	Omaha Public Power District	476
6. Cass County	Gas	Omaha Public Power District	320
7. Sarpy County	Petroleum, Gas	Omaha Public Power District	314
8. Rokeby	Petroleum, Gas	Lincoln Electric System	265
9. Sheldon	Gas, Coal	Nebraska Public Power District	225
10. C W Burdick	Petroleum, Gas	Grand Island City of	175

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Nebraska	-37-			l		
Omaha Public Power District	Public	9,049,537	3,106,036	3,363,801	2,579,700	0
Nebraska Public Power District	Public	2,950,002	762,258	1,002,678	1,185,066	0
3. Lincoln Electric System	Public	2,927,246	1,035,802	1,356,790	534,654	0
4. Loup River Public Power Dist	Public	994,731	215,800	186,444	592,487	0
5. Southern Public Power District	Public	818,292	224,065	29,254	564,973	0
Total Sales, Top Five Providers		16,739,808	5,343,961	5,938,967	5,456,880	0
Percent of Total State Sales		65	60	69	65	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share	
Energy Source	1994 1998 2003 19	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
ebraska							
Electric Utilities	5,519	5,811	6,667	2.1	99.9	99.7	99.7
Coal	3,112	3,169	3,196	.3	56.3	54.4	47.8
Petroleum	250	283	297	1.9	4.5	4.9	4.4
Natural Gas	11	2	322	45.5	.2	*	4.8
Dual Fired	725	945	1,335	7.0	13.1	16.2	20.0
Nuclear	1,254	1,245	1,233	2	22.7	21.4	18.4
Hydroelectric	167	167	268	5.4	3.0	2.9	4.0
Other Renewables	0	0	16	NM	.0	.0	.2
Independent Power Producers and Combined Heat and Power	8	16	17	8.7	.1	.3	
	0	7	8	.0	• 1	.3	••
Coal	0	,	0		.0	.1	
Petroleum	0	1	1	NM NM	.0	*	
Natural Gas	0	1	2	NM NM	.0	.1	
Dual Fired	0	3	5	NM NM	.0		
Other Renewables	Ü	3	3	NM	.0	.1	.1
Total Electric Industry	5,527	5,828	6,685	2.1	100.0	100.0	100.0
Coal	3,120	3,176	3,204	.3	56.4	54.5	47.9
Petroleum	250	284	298	2.0	4.5	4.9	4.5
Natural Gas	11	3	323	45.6	.2	.1	4.8
Dual Fired	725	949	1,338	7.0	13.1	16.3	20.0
	1.254	1,245	1,233	2	22.7	21.4	18.4
Nuclear							
Nuclear	167	167	268	5.4	3.0	2.9	4.0

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
ebraska							
Electric Utilities	21,945,525	28,720,209	30,367,879	3.7	99.8	99.7	99.7
Coal	14,002,015	18,335,965	20,907,970	4.6	63.7	63.7	68.6
Petroleum	18,201	41,892	47,971	11.4	.1	.1	.2
Natural Gas	258,764	400,008	369,409	4.0	1.2	1.4	1.2
Other Gases	0	0	206	NM	.0	.0	*
Nuclear	6,345,330	8,258,803	7,996,902	2.6	28.9	28.7	26.3
Hydroelectric	1,311,883	1,682,834	980,110	-3.2	6.0	5.8	3.2
Other Renewables	9,332	707	65,311	24.1	*	*	.2
Independent Power Producers and Combined							
Heat and Power	37,606	76,582	88,105	9.9	.2	.3	.3
Coal	37,452	44,506	46,203	2.4	.2	.2	.2
Petroleum	0	715	881	NM	.0	*	2
Natural Gas	154	14,475	11,669	61.7	*	*	>
Other Renewables	0	16,886	29,352	NM	.0	.1	.1
Total Electric Industry	21,983,131	28,796,791	30,455,984	3.7	100.0	100.0	100.0
Coal	14,039,467	18,380,471	20,954,173	4.5	63.9	63.8	68.8
Petroleum	18,201	42,607	48,852	11.6	.1	.1	
Natural Gas	258,918	414,483	381,078	4.4	1.2	1.4	1.3
Other Gases	0	0	206	NM	.0	.0	
Nuclear	6,345,330	8,258,803	7,996,902	2.6	28.9	28.7	26.
Hydroelectric	1,311,883	1,682,834	980,110	-3.2	6.0	5.8	3.2
Other Renewables	9,332	17,593	94,663	29.4	*	.1	.3

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Nebraska				
Coal (cents per million Btu)	76.5	58.6	59.9	-2.7
Average heat value (Btu per pound)	8,571	8,584	8,673	.1
Average sulfur Content (percent)	.3	.3	.3	-1.9
Petroleum (cents per million Btu)	401.8	333.3	457.2	1.4
Average heat value (Btu per gallon)	137,641	132,552	138,041	*
Average sulfur Content (percent)	.1	.4	.1	1.6
Natural Gas (cents per million Btu)	205.1	242.7	563.6	11.9
Average heat value (Btu per cubic foot)	987	989	998	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Nebraska				
Sulfur Dioxide				
Coal	51	53	63	2.3
Petroleum	*	*	*	19.1
Natural Gas	_	_	_	NM
Other	_	_	_	NM
Total	51	53	63	2.3
Nitrogen Oxide				
Coal	77	44	46	-5.7
Petroleum	*	*	*	34.9
Gas	*	1	*	-4.0
Other	_	*	*	NM
Total	78	45	46	-5.6
Carbon Dioxide				
Coal	14,878	19,148	21,085	3.9
Petroleum	19	41	44	9.8
Gas	163	300	248	4.8
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	15,059	19,488	21,376	4.0

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Nebraska							
Retail Sales (thousand megawatthours)							
Residential	7,379	8,160	8,852	2.0	37.1	35.3	34.2
Commercial	5,809	6,594	8,583	4.4	29.2	28.5	33.2
Industrial	5,345	6,916	8,421	5.2	26.9	29.9	32.6
Other	1,340	1,475	NA	NM	6.7	6.4	NA
Total	19,873	23,145	25,857	3.0	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	465	527	608	3.0	42.6	42.9	41.7
Commercial	324	359	499	4.9	29.7	29.3	34.2
Industrial	213	249	352	5.7	19.5	20.3	24.1
Other	88	92	NA	NM	8.1	7.5	NA
Total	1,091	1,227	1,458	3.3	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	6.31	6.46	6.87	.9	NA	NA	NA
Commercial	5.58	5.45	5.81	.4	NA	NA	NA
Industrial	3.99	3.60	4.18	.5	NA	NA	NA
Other	6.53	6.27	NA	NM	NA	NA	NA
Total	5.49	5.30	5.64	.3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	Service Pro	oviders		Other 1	Providers	
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Nebraska								
Number of Entities	NA	151	1	10	NA	NA	NA	162
Number of Retail Customers	NA	909,089	12	21,721	NA	NA	NA	930,822
Retail Sales (thousand megawatthours)	NA	25,062	161	633	NA	NA	NA	25,857
Percentage of Retail Sales	NA	96.93	.62	2.45	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	NA	1,408	2	48	NA	NA	NA	1,458
Percentage of Revenue	NA	96.56	.15	3.29	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	NA	5.62	1.36	7.59	NA	NA	NA	5.64

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Nevada		
NERC Region(s)		WECC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	7,508	35
Electric Utilities	5,323	33
Independent Power Producers & Combined Heat and Power	2,185	32
Net Generation (megawatthours)	33,194,888	36
Electric Utilities	24,634,871	35
Independent Power Producers & Combined Heat and Power	8,560,017	28
Emissions (thousand metric tons)		
Sulfur Dioxide	47	35
Nitrogen Oxide	40	35
Carbon Dioxide	22,982	35
Sulfur Dioxide (lbs/MWh)	3.1	38
Nitrogen Oxide (lbs/MWh)	2.7	25
Carbon Dioxide (lbs/MWh)	1,526	21
Total Retail Sales (megawatthours)	30,131,660	34
Full Service Provider Sales (megawatthours)	30,131,660	34
Direct Use (megawatthours)	232,260	42
Average Retail Price (cents/kWh)	8.29	12

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Nevada			
1. Mohave	Gas, Coal	Southern California Edison Co	1,580
2. Hoover Dam	Hydro	U S Bureau of Reclamation	1,039
3. Clark	Gas	Nevada Power Co	700
4. Reid Gardner	Petroleum, Coal	Nevada Power Co	555
5. North Valmy	Petroleum, Coal	Sierra Pacific Power Co	522
6. Apex Generating Station	Gas	Mirant Las Vegas LLC	494
7. El Dorado Energy	Gas	El Dorado Energy LLC	450
8. Tracy	Petroleum, Gas	Sierra Pacific Power Co	434
9. Tri Center Naniwa Energy	Gas	Naniwa Energy LLC	300
10. Fort Churchill	Petroleum, Gas	Sierra Pacific Power Co	226

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership	All Sectors	Residential	Commercial	Industrial	Transportation
Nevada	Type					
Nevada Power Co	Investor-Owned	18,371,324	7,765,112	3,956,785	6,649,427	0
2. Sierra Pacific Power Co	Investor-Owned	8,386,222	1,953,357	2,757,897	3,674,968	0
3. Colorado River Comm of Nevada	Public	1,452,956	0	743,406	709,550	0
4. Wells Rural Electric Co	Cooperative	596,986	43,289	44,283	509,414	0
5. Valley Electric Assn, Inc	Cooperative	363,031	218,685	144,346	0	0
Total Sales, Top Five Providers		29,170,519	9,980,443	7,646,717	11,543,359	0
Percent of Total State Sales		97	97	94	99	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual Growth Rate 1994-2003 (Percent)	1	Percentage Share	
Energy Source	1994	1998	2003		1994	1998	2003
evada							
Electric Utilities	5,478	5,642	5,323	-0.3	88.1	88.3	70.9
Coal	2,717	2,806	2,657	2	43.7	43.9	35.4
Petroleum	48	45	45	7	.8	.7	.6
Natural Gas	292	502	190	-4.7	4.7	7.9	2.5
Dual Fired	1,375	1,243	1,386	.1	22.1	19.5	18.5
Hydroelectric	1,046	1,046	1,045	*	16.8	16.4	13.9
Independent Power Producers and Combined							
Heat and Power	739	747	2.185	12.8	11.9	11.7	29.1
Natural Gas	127	337	1,785	34.1	2.0	5.3	23.8
Dual Fired	383	178	222	-5.9	6.2	2.8	3.0
Hydroelectric	4	4	6	4.6	.1	.1	.1
Other Renewables	225	228	172	-2.9	3.6	3.6	2.3
Total Electric Industry	6,217	6,389	7,508	2.1	100.0	100.0	100.0
Coal	2,717	2,806	2,657	2	43.7	43.9	35.4
Petroleum	48	45	45	7	.8	.7	.6
Natural Gas	419	839	1,975	18.8	6.7	13.1	26.3
Dual Fired	1,758	1,421	1,608	-1.0	28.3	22.2	21.4
Hydroelectric	1,050	1,050	1,051	*	16.9	16.4	14.0
Other Renewables	225	228	172	-2.9	3.6	3.6	2.3

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	:
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Nevada							
Electric Utilities	20,519,076	26,552,567	24,634,871	2.1	83.7	86.7	74.2
Coal	15,324,714	17,161,341	17,085,959	1.2	62.5	56.1	51.5
Petroleum	166,446	50,285	16,793	-22.5	.7	.2	.1
Natural Gas	3,162,156	6,189,526	5,784,181	6.9	12.9	20.2	17.4
Hydroelectric	1,865,760	3,151,415	1,747,938	7	7.6	10.3	5.3
Independent Power Producers and Combined							
Heat and Power	3,998,651	4,060,953	8,560,017	8.8	16.3	13.3	25.8
Petroleum	1,234	1,247	0	NM	*	*	.0
Natural Gas	2,467,470	2,501,303	7,468,598	13.1	10.1	8.2	22.5
Other Gases	0	0	16,941	NM	.0	.0	.1
Hydroelectric	10,129	14,910	8,767	-1.6	*	*	*
Other Renewables	1,494,930	1,537,094	1,065,711	-3.7	6.1	5.0	3.2
Other	24,888	6,399	0	NM	.1	*	.0
Total Electric Industry	24,517,727	30,613,520	33,194,888	3.4	100.0	100.0	100.0
Coal	15,324,714	17,161,341	17,085,959	1.2	62.5	56.1	51.5
Petroleum	167,680	51,532	16,793	-22.6	.7	.2	.1
Natural Gas	5,629,626	8,690,829	13,252,779	10.0	23.0	28.4	39.9
Other Gases	0	0	16,941	NM	.0	.0	.1
Hydroelectric	1,875,889	3,166,325	1,756,705	7	7.7	10.3	5.3
Other Renewables	1,494,930	1,537,094	1,065,711	-3.7	6.1	5.0	3.2
Other	24,888	6,399	0	NM	.1	*	.0

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	ty 1994		2003	Annual Growth Rate 1994-2003 (Percent)	
Nevada					
Coal (cents per million Btu)	143.3	129.8	141.7	-0.1	
Average heat value (Btu per pound)	11,291	11,199	11,120	2	
Average sulfur Content (percent)	.5	.5	.5	.1	
Petroleum (cents per million Btu)	328.7	379.6	600.7	6.9	
Average heat value (Btu per gallon)	148,197	138,848	138,548	7	
Average sulfur Content (percent)	.7	.3	.3	-10.5	
Natural Gas (cents per million Btu)	192.4	230.2	510.6	11.5	
Average heat value (Btu per cubic foot)	1,033	1,034	1,039	.1	

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994 1998		2003	Annual Growth Rate 1994-2003 (Percent)
Nevada				
Sulfur Dioxide				
Coal	48	43	47	-0.3
Petroleum	1	*	*	-30.7
Natural Gas	*	*	*	6.7
Other	_	_	_	NM
Total	48	43	47	4
Nitrogen Oxide				
Coal	72	38	34	-8.0
Petroleum	*	*	*	-24.9
Gas	5	8	6	2.6
Other	*	*	_	NM
Total	77	47	40	-7.0
Coal	16,403	16,685	16,675	.2
Petroleum	138	48	15	-22.1
Gas	2,998	4,581	6,266	8.5
Geothermal	38	39	27	-3.8
Other	_	_	_	NM
Total	19,577	21,353	22,982	1.8

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Po	Percentage Share			
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
Nevada									
Retail Sales (thousand megawatthours)									
Residential	6,845	7,975	10,340	4.7	34.2	31.8	34.3		
Commercial	4,612	5,655	8,168	6.6	23.0	22.6	27.1		
Industrial	7,775	10,518	11,624	4.6	38.8	42.0	38.6		
Other	805	889	NA	NM	4.0	3.5	NA		
Total	20,036	25,037	30,132	4.6	100.0	100.0	100.0		
Retail Revenue (million dollars)									
Residential	490	558	932	7.4	38.4	38.7	37.3		
Commercial	322	368	718	9.3	25.2	25.5	28.7		
Industrial	423	480	849	8.0	33.1	33.3	34.0		
Other	42	36	NA	NM	3.3	2.5	NA		
Total	1,277	1,442	2,499	7.8	100.0	100.0	100.0		
Average Retail Price (cents/kWh)									
Residential	7.16	7.00	9.02	2.6	NA	NA	NA		
Commercial	6.97	6.50	8.79	2.6	NA	NA	NA		
Industrial	5.45	4.57	7.30	3.3	NA	NA	NA		
Other	5.19	4.02	NA	NM	NA	NA	NA		
Total	6.37	5.76	8.29	3.0	NA	NA	NA		

Table 9. Retail Electricity Sales Statistics, 2003

Item	Full Service Providers					Other I		
	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Nevada								
Number of Entities	2	8	1	8	NA	NA	NA	19
Number of Retail Customers	964,923	24,358	2	29,792	NA	NA	NA	1,019,075
Retail Sales (thousand megawatthours)	26,758	2,057	32	1,286	NA	NA	NA	30,132
Percentage of Retail Sales	88.80	6.83	.11	4.27	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	2,309	114	*	76	NA	NA	NA	2,499
Percentage of Revenue	92.40	4.55	*	3.04	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	8.63	5.53	.32	5.91	NA	NA	NA	8.29

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
New Hampshire			
NERC Region(s)		NPCC	
Primary Energy Source		Nuclear	
Net Summer Capability (megawatts)	4,244	43	
Electric Utilities	1,121	43	
Independent Power Producers & Combined Heat and Power	3,124	28	
Net Generation (megawatthours)	21,597,107	42	
Electric Utilities	6,231,573	40	
Independent Power Producers & Combined Heat and Power	15,365,534	16	
Emissions (thousand metric tons)			
Sulfur Dioxide	52	33	
Nitrogen Oxide	10	46	
Carbon Dioxide	7,600	44	
Sulfur Dioxide (lbs/MWh)	5.3	20	
Nitrogen Oxide (lbs/MWh)	1.1	44	
Carbon Dioxide (lbs/MWh)	776	44	
Total Retail Sales (megawatthours)	10,972,542	44	
Full Service Provider Sales (megawatthours)	10,824,276	41	
Deregulated Sales (megawatthours)	148,266	17	
Direct Use (megawatthours)	455,577	37	
Average Retail Price (cents/kWh)	10.83	5	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
New Hampshire			
1. Seabrook	Nuclear	FPL Energy Seabrook LLC	1,159
2. AES Granite Ridge	Gas	AES Granite Ridge	797
3. Newington Power Facility	Petroleum, Gas	Newington Energy LLC	525
4. Merrimack	Petroleum, Coal	Public Service Co of NH	466
5. Newington	Petroleum	Public Service Co of NH	400
6. S C Moore	Hydro	U S Gen New England Inc	184
7. Comerford	Hydro	U S Gen New England Inc	161
8. Schiller	Gas, Petroleum, Coal	Public Service Co of NH	160
9. Berlin Gorham	Hydro	Great Lakes Hydro America LLC	29
10. Pinetree Power Tamworth	Other	Pinetree Power Tamworth Inc	20

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
New Hampshire						
1. Public Service Co of NH	Investor-Owned	7,751,049	2,943,769	3,123,495	1,683,785	0
2. Unitil Energy Systems	Investor-Owned	1,211,068	476,221	415,330	319,517	0
3. Granite State Electric Co	Investor-Owned	718,703	283,141	368,368	67,194	0
4. New Hampshire Elec Coop Inc	Cooperative	690,094	426,274	218,734	45,086	0
5. Connecticut Valley Elec Co Inc	Investor-Owned	155,263	59,615	75,392	20,256	0
Total Sales, Top Five Providers		10,526,177	4,189,020	4,201,319	2,135,838	0
Percent of Total State Sales		96	99	97	89	0

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	1	Percentage Share			
Energy Source	1994 1998		2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
New Hampshire									
Electric Utilities	2,500	2,292	1,121	-8.5	90.8	80.5	26.4		
Coal	578	578	575	1	21.0	20.3	13.5		
Petroleum	66	64	64	3	2.4	2.2	1.5		
Dual Fired	423	424	417	2	15.4	14.9	9.8		
Nuclear	1,150	1,162	0	NM	41.8	40.8	.0		
Hydroelectric	283	64	65	-15.1	10.3	2.2	1.5		
Independent Power Producers and Combined									
Heat and Power	252	555	3,124	32.3	9.2	19.5	73.6		
Petroleum	29	35	32	1.1	1.1	1.2	.8		
Natural Gas	0	0	291	NM	.0	.0	6.9		
Dual Fired	4	10	1.064	86.0	.1	.4	25.1		
Nuclear	0	0	1.159	NM	.0	.0	27.3		
Hydroelectric	89	380	447	19.6	3.2	13.3	10.5		
Other Renewables	130	130	131	.1	4.7	4.6	3.1		
Total Electric Industry	2,753	2,848	4,244	4.9	100.0	100.0	100.0		
Coal	578	578	575	1	21.0	20.3	13.5		
Petroleum	96	100	96	.0	3.5	3.5	2.3		
Natural Gas	0	0	291	NM	.0	.0	6.9		
Dual Fired.	427	434	1,481	14.8	15.5	15.2	34.9		
Nuclear	1.150	1.162	1.159	.1	41.8	40.8	27.3		
Hydroelectric	372	444	511	3.6	13.5	15.6	12.0		
Other Renewables	130	130	131	.1	4.7	4.6	3.1		

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
lew Hampshire								
Electric Utilities	11,888,117	14,237,580	6,231,573	-6.9	88.3	88.5	28.9	
Coal	3,181,654	3,513,065	3,923,303	2.4	23.6	21.8	18.2	
Petroleum	1,352,611	1,352,598	1,976,692	4.3	10.0	8.4	9.2	
Natural Gas	114,587	9,837	87	-55.0	.9	.1	.(
Nuclear	6,203,747	8,387,023	0	NM	46.1	52.1).	
Hydroelectric	1,035,518	975,057	331,491	-11.9	7.7	6.1	1.5	
Independent Power Producers and Combined								
Heat and Power	1,574,382	1,851,273	15,365,534	28.8	11.7	11.5	71.1	
Petroleum	67,967	101,256	67,834	*	.5	.6	.3	
Natural Gas	0	13,472	4,165,378	NM	.0	.1	19.3	
Nuclear	0	0	9,276,288	NM	.0	.0	43.0	
Hydroelectric	425,809	621,691	999,778	9.9	3.2	3.9	4.6	
Other Renewables	1,080,606	1,114,854	856,256	-2.6	8.0	6.9	4.0	
Total Electric Industry	13,462,499	16,088,853	21,597,107	5.4	100.0	100.0	100.0	
Coal	3,181,654	3,513,065	3,923,303	2.4	23.6	21.8	18.2	
Petroleum	1,420,578	1,453,854	2,044,526	4.1	10.6	9.0	9.5	
Natural Gas	114,587	23,309	4,165,465	49.1	.9	.1	19.3	
Nuclear	6,203,747	8,387,023	9,276,288	4.6	46.1	52.1	43.0	
Hydroelectric	1,461,327	1,596,748	1,331,269	-1.0	10.9	9.9	6.2	
Other Renewables	1.080,606	1,114,854	856,256	-2.6	8.0	6.9	4.0	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
New Hampshire				
Coal (cents per million Btu)	152.2	161.2	170.3	1.3
Average heat value (Btu per pound)	13,032	13,133	13,262	.2
Average sulfur Content (percent)	1.5	1.4	1.1	-3.6
Petroleum (cents per million Btu)	199.5	187.2	W	W
Average heat value (Btu per gallon)	153,466	151,852	152,724	1
Average sulfur Content (percent)	1.5	1.5	1.5	.1
Natural Gas (cents per million Btu)	209.7	.0	W	W
Average heat value (Btu per cubic foot)	1,015	0	1,047	.3

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
New Hampshire				
Sulfur Dioxide				
Coal	34	35	30	-1.2
Petroleum	11	15	21	6.7
Natural Gas	_	_	*	NM
Other	*	*	1	33.7
Total	46	50	52	1.5
Nitrogen Oxide				
Coal	17	11	5	-12.2
Petroleum	2	3	3	6.8
Gas	*	*	1	17.3
Other	1	2	1	1.8
Total	20	15	10	-6.9
Carbon Dioxide				
Coal	3,088	3,561	3,838	2.4
Petroleum	1,329	1,477	1,815	3.5
Gas	68	15	1,838	44.2
Geothermal	_	_	_	NM
Other	29	26	109	15.6
Total	4,515	5,081	7,600	6.0

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

		1998	2003	Annual	P	ercentage Sha	re
Sector	1994			Growth Rate 1994-2003 (Percent)	1994	1998	2003
New Hampshire							
Retail Sales (thousand megawatthours)							
Residential	3,431	3,401	4,252	2.4	38.3	36.6	38.8
Commercial	3,221	3,351	4,318	3.3	36.0	36.0	39.3
Industrial	2,182	2,425	2,403	1.1	24.4	26.1	21.9
Other	122	127	NA	NM	1.4	1.4	NA
Total	8,956	9,303	10,973	2.3	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	443	473	509	1.6	43.7	42.7	42.8
Commercial	351	389	445	2.7	34.6	35.1	37.5
Industrial	203	228	234	1.6	20.0	20.6	19.7
Other	16	17	NA	NM	1.6	1.5	NA
Total	1,014	1,107	1,188	1.8	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	12.91	13.92	11.98	8	NA	NA	NA
Commercial	10.91	11.64	10.30	6	NA	NA	NA
Industrial	9.32	9.42	9.75	.5	NA	NA	NA
Other	13.36	13.76	NA	NM	NA	NA	NA
Total	11.32	11.93	10.83	5	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other P				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
New Hampshire								
Number of Entities	4	5	NA	1	4	4	2	20
Number of Retail Customers	576,788	11,147	NA	73,727	5	106	NA	661,773
Retail Sales (thousand megawatthours)	9,803	175	NA	690	156	148	NA	10,973
Percentage of Retail Sales	89.34	1.60	NA	6.29	1.42	1.35	NA	100.00
Revenue from Retail Sales (million dollars)	1,048	16	NA	92	21	7	4	1,188
Percentage of Revenue	88.23	1.33	NA	7.78	1.79	.57	.30	100.00
Average Retail Price (cents/kWh)	10.70	8.99	NA	13.40	13.59	4.55	2.44	10.83

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
New Jersey			
NERC Region(s)		MAAC	
Primary Energy Source		Nuclear	
Net Summer Capability (megawatts)	18,647	21	
Electric Utilities	1,244	42	
Independent Power Producers & Combined Heat and Power	17,401	6	
Net Generation (megawatthours)	57,399,351	24	
Electric Utilities	1,910,115	44	
Independent Power Producers & Combined Heat and Power	55,489,236	6	
Emissions (thousand metric tons)			
Sulfur Dioxide	49	34	
Nitrogen Oxide	32	38	
Carbon Dioxide	20,194	37	
Sulfur Dioxide (lbs/MWh)	1.9	42	
Nitrogen Oxide (lbs/MWh)	1.2	43	
Carbon Dioxide (lbs/MWh)	776	45	
Total Retail Sales (megawatthours)	76,382,512	19	
Full Service Provider Sales (megawatthours)	69,668,164	20	
Deregulated Sales (megawatthours)	6,714,348	10	
Direct Use (megawatthours)	2,404,390	19	
Average Retail Price (cents/kWh)	9.48	11	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Plant Energy Sources		Net Summer Capability (MW)
New Jersey			
PSEG Salem Generating Station	Other, Nuclear	PSEG Nuclear LLC	2,278
2. Bergen	Other, Gas	PSEG Fossil LLC	1,242
3. PSEG Hope Creek Generating Station	Nuclear	PSEG Nuclear LLC	1,049
4. PSEG Hudson Generating Station	Gas, Petroleum, Coal	PSEG Fossil LLC	991
5. Linden Cogen Plant	Petroleum, Other, Gas	Cogen Technologies Linden Vent	900
6. PSEG Burlington Generating Station	Other, Gas	PSEG Fossil LLC	802
7. AES Red Oak LLC	Gas	AES Red Oak LLC	792
8. PSEG Mercer Generating Station	Other, Gas, Coal	PSEG Fossil LLC	777
9. PSEG Linden Generating Station	Other, Gas	PSEG Fossil LLC	775
10. PSEG Kearny Generating Station	Petroleum, Other, Gas	PSEG Fossil LLC	764

Table 3. Top Five Providers of Retail Electricity, 2003 (Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
New Jersey						
Public Service Elec & Gas Co	Investor-Owned	38,766,006	12,792,377	20,680,408	5,157,335	135,886
2. Jersey Central Power&Light Co	Investor-Owned	18,786,247	8,681,223	7,904,461	2,200,563	0
3. Atlantic City Electric Co	Investor-Owned	8,559,693	4,207,502	3,663,024	689,167	0
4. WPS Energy Services	Power Marketer	1,658,580	0	0	1,658,580	0
5. Rockland Electric Co	Investor-Owned	1,513,906	703,616	754,116	56,174	0
Total Sales, Top Five Providers		69,284,432	26,384,718	33,002,009	9,761,819	135,886
Percent of Total State Sales		91	96	90	80	74

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
New Jersey							
Electric Utilities	13,500	13,390	1,244	-23.3	81.5	80.6	6.7
Coal	1,634	1,658	387	-14.8	9.9	10.0	2.1
Petroleum	2,827	2,490	286	-22.5	17.1	15.0	1.5
Natural Gas	2,763	1,904	0	NM	16.7	11.5	.0
Dual Fired	2,034	3,076	171	-24.1	12.3	18.5	.9
Nuclear	3,862	3,862	0	NM	23.3	23.2	.0
Pumped Storage	380	400	400	.6	2.3	2.4	2.1
Independent Power Producers and Combined							
Heat and Power	3,056	3,232	17,401	21.3	18.5	19.4	93.3
Coal	483	483	1,737	15.3	2.9	2.9	9.3
Petroleum	1	23	1,867	130.9	*	.1	10.0
Natural Gas	316	667	2,871	27.8	1.9	4.0	15.4
Other Gases	0	22	21	NM	.0	.1	.1
Dual Fired	2,074	1,833	6,783	14.1	12.5	11.0	36.4
Nuclear	0	0	3,908	NM	.0	.0	21.0
Hydroelectric	13	13	14	.8	.1	.1	.1
Other Renewables	169	187	200	1.9	1.0	1.1	1.1
Other	0	4	0	NM	.0	*	.0
Total Electric Industry	16,556	16,622	18,647	1.3	100.0	100.0	100.0
Coal	2,117	2,141	2,124	*	12.8	12.9	11.4
Petroleum	2,828	2,513	2,153	-3.0	17.1	15.1	11.5
Natural Gas	3,079	2,571	2,872	8	18.6	15.5	15.4
Other Gases	0	22	21	NM	.0	.1	.1
Dual Fired	4,108	4,909	6,955	6.0	24.8	29.5	37.3
Nuclear	3,862	3,862	3,908	.1	23.3	23.2	21.0
Hydroelectric	13	13	14	.8	.1	.1	.1
Other Renewables	169	187	200	1.9	1.0	1.1	1.1
Pumped Storage	380	400	400	.6	2.3	2.4	2.1
Other	0	4	0	NM	.0	*	.0

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	:
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
New Jersey							
Electric Utilities	31,931,596	35,911,086	1,910,115	-26.9	65.9	66.7	3.3
Coal	4,646,622	5,586,357	1,792,734	-10.0	9.6	10.4	3.1
Petroleum	1,656,066	484,998	209,017	-20.5	3.4	.9	.4
Natural Gas	3,666,307	2,853,825	28,246	-41.8	7.6	5.3	*
Nuclear	22,129,335	27,132,139	0	NM	45.7	50.4	.0
Pumped Storage	-166,734	-146,233	-119,882	NM	3	3	2
Independent Power Producers and Combined							
Heat and Power	16,503,746	17,946,547	55,489,236	14.4	34.1	33.3	96.7
Coal	1,025,589	2,058,869	7,996,829	25.6	2.1	3.8	13.9
Petroleum	700,662	244,875	1,332,535	7.4	1.4	.5	2.3
Natural Gas	13,525,521	13,627,001	14,747,331	1.0	27.9	25.3	25.7
Other Gases	101,509	659,128	255,374	10.8	.2	1.2	.4
Nuclear	0	0	29,709,201	NM	.0	.0	51.8
Hydroelectric	15,083	20,670	38,891	11.1	*	*	.1
Other Renewables	1,135,382	1,310,817	1,398,532	2.3	2.3	2.4	2.4
Other	0	25,187	10,543	NM	.0	*	*
Total Electric Industry	48,435,342	53,857,633	57,399,351	1.9	100.0	100.0	100.0
Coal	5,672,211	7,645,226	9,789,563	6.3	11.7	14.2	17.1
Petroleum	2,356,728	729,873	1,541,552	-4.6	4.9	1.4	2.7
Natural Gas	17,191,828	16,480,826	14,775,577	-1.7	35.5	30.6	25.7
Other Gases	101,509	659,128	255,374	10.8	.2	1.2	.4
Nuclear	22,129,335	27,132,139	29,709,201	3.3	45.7	50.4	51.8
Hydroelectric	15,083	20,670	38,891	11.1	*	*	.1
Other Renewables	1,135,382	1,310,817	1,398,532	2.3	2.3	2.4	2.4
Pumped Storage	-166,734	-146,233	-119,882	NM	3	3	2
Other	0	25,187	10,543	NM	.0	*	*

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
New Jersey				
Coal (cents per million Btu)	181.7	159.0	179.6	-0.1
Average heat value (Btu per pound)	13,341	13,113	13,056	2
Average sulfur Content (percent)	1.3	1.1	1.1	-1.6
Petroleum (cents per million Btu)	290.2	242.2	604.0	8.5
Average heat value (Btu per gallon)	148,378	148,656	139,250	7
Average sulfur Content (percent)	.4	.4	.2	-9.4
Natural Gas (cents per million Btu)	209.6	262.0	619.6	12.8
Average heat value (Btu per cubic foot)	1,035	1,045	1,036	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
New Jersey				
Sulfur Dioxide				
Coal	46	40	46	0.1
Petroleum	5	3	3	-7.1
Natural Gas	*	*	*	-9.5
Other	*	*	*	-5.3
Total	51	43	49	5
Nitrogen Oxide				
Coal	25	30	22	-1.5
Petroleum	3	1	1	-7.9
Gas	14	16	4	-12.7
Other	3	3	4	6.1
Total	45	50	32	-3.7
Carbon Dioxide				
Coal	5,840	7,967	9,837	6.0
Petroleum	2,167	756	1,475	-4.2
Gas	9,733	9,207	8,170	-1.9
Geothermal			_	NM
Other	231	243	712	13.3
Total	17,971	18,173	20,194	1.3

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
New Jersey							
Retail Sales (thousand megawatthours)							
Residential	22,154	23,191	27,367	2.4	33.4	34.0	35.8
Commercial	29,358	31,127	36,616	2.5	44.3	45.7	47.9
Industrial	14,251	13,339	12,215	-1.7	21.5	19.6	16.0
Other	495	504	NA	NM	.8	.7	NA
Transportation	NA	NA	184	NM	NA	NA	.2
Total	66,258	68,162	76,383	1.6	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	2,556	2,642	2,921	1.5	38.3	38.1	40.3
Commercial	2,889	3,141	3,335	1.6	43.3	45.3	46.0
Industrial	1,132	1,059	976	-1.6	17.0	15.3	13.5
Other	88	90	NA	NM	1.3	1.3	NA
Transportation	NA	NA	13	NM	NA	NA	.2
Total	6,665	6,932	7,245	.9	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	11.54	11.39	10.67	9	NA	NA	NA
Commercial	9.84	10.09	9.11	8	NA	NA	NA
Industrial	7.94	7.94	7.99	.1	NA	NA	NA
Other	17.70	17.92	NA	NM	NA	NA	NA
Transportation	NA	NA	7.15	NM	NA	NA	NA
Total	10.06	10.17	9.48	7	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr		Other P	roviders		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
New Jersey								
Number of Entities	4	9	NA	1	6	12	5	37
Number of Retail Customers	3,624,915	56,447	NA	11,267	7	45,061	NA	3,737,697
Retail Sales (thousand megawatthours)	67,419	996	NA	143	1,110	6,714	NA	76,383
Percentage of Retail Sales	88.27	1.30	NA	.19	1.45	8.79	NA	100.00
Revenue from Retail Sales (million dollars)	6,461	102	NA	16	78	354	233	7,245
Percentage of Revenue	89.19	1.41	NA	.22	1.08	4.88	3.22	100.00
Average Retail Price (cents/kWh)	9.58	10.25	NA	10.96	7.04	5.27	3.48	9.48

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
New Mexico		
NERC Region(s)		SPP/WSCC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	6,289	38
Electric Utilities	5,398	32
Independent Power Producers & Combined Heat and Power	892	40
Net Generation (megawatthours)	32,735,653	37
Electric Utilities	31,770,151	30
Independent Power Producers & Combined Heat and Power	965,502	44
Emissions (thousand metric tons)		
Sulfur Dioxide	46	36
Nitrogen Oxide	71	27
Carbon Dioxide	31,158	31
Sulfur Dioxide (lbs/MWh)	3.1	37
Nitrogen Oxide (lbs/MWh)	4.8	4
Carbon Dioxide (lbs/MWh)	2,098	5
Total Retail Sales (megawatthours)	19,330,491	39
Full Service Provider Sales (megawatthours)	19,330,491	39
Direct Use (megawatthours)	445,381	38
Average Retail Price (cents/kWh)	7.00	18

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
New Mexico			
1. Four Corners	Gas, Coal	Arizona Public Service Co	2,040
2. San Juan	Petroleum, Coal	Public Service Co of NM	1,643
3. Cunningham	Gas	Southwestern Public Service Co	487
4. Escalante	Gas, Coal	Tri-State G & T Assn Inc	247
5. Rio Grande	Petroleum, Gas	El Paso Electric Co	231
6. New Mexico Wind Energy Center	Other	FPL Energy New Mexico Wind LLC	204
7. Maddox	Gas	Southwestern Public Service Co	193
8. Pyramid	Gas	Tri-State G & T Assn Inc	158
9. Reeves	Gas	Public Service Co of NM	154
10. Afton Generating Station	Gas	Public Service Co of NM	141

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
New Mexico				,	,	
1. Public Service Co of NM	Investor-Owned	7,352,711	2,397,946	3,607,825	1,346,940	0
2. Southwestern Public Service Co	Investor-Owned	3,413,502	864,732	1,376,379	1,172,391	0
3. El Paso Electric Co	Investor-Owned	1,407,577	492,939	817,580	97,058	0
4. Farmington City of	Public	1,064,317	216,921	361,628	485,768	0
5. Texas-New Mexico Power Co	Investor-Owned	965,727	240,977	258,850	465,900	0
Total Sales, Top Five Providers		14,203,834	4,213,515	6,422,262	3,568,057	0
Percent of Total State Sales		73	78	80	61	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	1	Percentage Share	:
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
ew Mexico							
Electric Utilities	5,078	5,294	5,398	0.7	96.5	95.7	85.8
Coal	3,901	3,913	3,942	.1	74.1	70.7	62.7
Petroleum	24	15	35	4.3	.5	.3	.6
Natural Gas	588	974	905	4.9	11.2	17.6	14.4
Dual Fired	507	311	434	-1.7	9.6	5.6	6.9
Hydroelectric	58	81	82	3.9	1.1	1.5	1.3
Independent Power Producers and Combined							
Heat and Power	184	238	892	19.2	3.5	4.3	14.2
Petroleum	26	66	10	-10.1	.5	1.2	.2
Natural Gas.	52	170	347	23.5	1.0	3.1	5.5
Dual Fired	104	0	325	13.5	2.0	.0	5.2
Other Renewables	2	2	210	67.7	*	*	3.3
Total Electric Industry	5,261	5,531	6,289	2.0	100.0	100.0	100.0
Coal	3,901	3,913	3,942	.1	74.1	70.7	62.7
Petroleum	49	81	45	9	.9	1.5	.7
Natural Gas	640	1,143	1,251	7.7	12.2	20.7	19.9
Dual Fired	611	311	759	2.4	11.6	5.6	12.1
Hydroelectric	58	81	82	3.9	1.1	1.5	1.3
Other Renewables	2	2	210	67.7	*	*	3.3

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	1	Percentage Share		
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
New Mexico								
Electric Utilities	30,018,011	31,428,332	31,770,151	0.6	98.8	97.2	97.1	
Coal	26,752,349	27,537,426	28,812,844	.8	88.0	85.2	88.0	
Petroleum	22,929	23,020	47,860	8.5	.1	.1	.1	
Natural Gas	3,029,843	3,631,474	2,738,748	-1.1	10.0	11.2	8.4	
Hydroelectric	212,890	236,412	170,699	-2.4	.7	.7	.5	
Independent Power Producers and Combined								
Heat and Power	372,663	895,737	965,501	11.2	1.2	2.8	2.9	
Petroleum	2,767	4,456	2,809	.2	*	*	*	
Natural Gas	359,094	882,075	779,957	9.0	1.2	2.7	2.4	
Other Renewables	10,802	9,206	182,735	36.9	*	*	.6	
Total Electric Industry	30,390,674	32,324,069	32,735,653	.8	100.0	100.0	100.0	
Coal	26,752,349	27,537,426	28,812,844	.8	88.0	85.2	88.0	
Petroleum	25,696	27,476	50,669	7.8	.1	.1	.2	
Natural Gas	3,388,937	4,513,549	3,518,705	.4	11.2	14.0	10.7	
Hydroelectric	212,890	236,412	170,699	-2.4	.7	.7	.5	
Other Renewables	10.802	9,206	182,735	36.9	*	*	.6	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
New Mexico				
Coal (cents per million Btu)	140.9	130.6	142.5	0.1
Average heat value (Btu per pound)	9,043	9,082	9,164	.1
Average sulfur Content (percent)	.8	.8	.7	-1.2
Petroleum (cents per million Btu)	464.9	439.3	W	W
Average heat value (Btu per gallon)	136,000	136,000	136,047	*
Average sulfur Content (percent)	1.0	.9	.0	NM
Natural Gas (cents per million Btu)	194.5	220.0	W	W
Average heat value (Btu per cubic foot)	1,022	1.010	996	3

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
New Mexico				
Sulfur Dioxide				
Coal	57	71	46	-2.3
Petroleum	*	*	*	-4.0
Natural Gas	*	*	*	1.3
Other	_	_	_	NM
Total	57	71	46	-2.3
Nitrogen Oxide				
Coal	109	73	68	-5.1
Petroleum	*	*	*	17.9
Gas	4	5	3	-3.9
Other	*	*	_	NM
Total Carbon Dioxide	113	78	71	-5.1
Coal	25,997	27,110	28.977	1.2
	23,997	27,110	28,977	6.2
Petroleum	1.996	2,855	2,145	.8
Gas Geothermal	1,990	2,833	2,143	.8 NM
	_	_	_	NM NM
Other Total	28.015	29.988	31,158	1.2

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
New Mexico							
Retail Sales (thousand megawatthours)							
Residential	4,080	4,642	5,418	3.2	25.7	25.5	28.0
Commercial	4,970	5,703	8,063	5.5	31.3	31.4	41.7
Industrial	5,184	6,186	5,849	1.3	32.7	34.0	30.3
Other	1,625	1,642	NA	NM	10.3	9.0	NA
Total	15,859	18,173	19,330	2.2	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	373	411	471	2.6	33.1	33.3	34.8
Commercial	413	445	593	4.1	36.6	36.1	43.8
Industrial	244	277	290	1.9	21.6	22.5	21.4
Other	98	100	NA	NM	8.7	8.1	NA
Total	1,127	1,233	1,354	2.1	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	9.14	8.85	8.69	6	NA	NA	NA
Commercial	8.30	7.80	7.36	-1.3	NA	NA	NA
Industrial	4.70	4.47	4.95	.6	NA	NA	NA
Other	6.05	6.11	NA	NM	NA	NA	NA
Total	7.11	6.78	7.00	2	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers					Other Providers			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total	
New Mexico									
Number of Entities	4	8	1	21	NA	NA	NA	34	
Number of Retail Customers	624,777	79,747	4	189,781	NA	NA	NA	894,309	
Retail Sales (thousand megawatthours)	13,140	2,068	127	3,996	NA	NA	NA	19,330	
Percentage of Retail Sales	67.97	10.70	.66	20.67	NA	NA	NA	100.00	
Revenue from Retail Sales (million dollars)	936	149	3	266	NA	NA	NA	1,354	
Percentage of Revenue	69.11	11.03	.19	19.66	NA	NA	NA	100.00	
Average Retail Price (cents/kWh)	7.12	7.22	2.04	6.66	NA	NA	NA	7.00	

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
New York		
NERC Region(s)		NPCC
Primary Energy Source		Nuclear
Net Summer Capability (megawatts)	36,696	6
Electric Utilities	11,902	20
Independent Power Producers & Combined Heat and Power	24,796	5
Net Generation (megawatthours)	137,643,316	7
Electric Utilities	41,578,894	25
Independent Power Producers & Combined Heat and Power	96,064,422	5
Emissions (thousand metric tons)		
Sulfur Dioxide	259	15
Nitrogen Oxide	81	21
Carbon Dioxide	56,944	14
Sulfur Dioxide (lbs/MWh)	4.1	30
Nitrogen Oxide (lbs/MWh)	1.3	42
Carbon Dioxide (lbs/MWh)	912	41
Total Retail Sales (megawatthours)	144,044,703	5
Full Service Provider Sales (megawatthours)	100,387,510	11
Deregulated Sales (megawatthours)	43,657,193	2
Direct Use (megawatthours)	4,216,899	11
Average Retail Price (cents/kWh)	12.44	2

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	lant Energy Sources Operating Company		Net Summer Capability (MW)
New York			
1. Ravenswood	Gas, Petroleum	KeySpan-Ravenswood Inc	2,447
2. Robert Moses Niagara	Hydro	Power Authority of State of NY	2,210
3. Nine Mile Point Nuclear Station	Nuclear	Nine Mile Point Nuclear Sta LLC	1,756
4. Oswego Harbor Power	Gas, Petroleum	NRG Oswego Harbor Power Operations Inc	1,667
5. Northport	Gas, Petroleum	KeySpan Generation LLC	1,552
6. Astoria Generating Station	Gas, Petroleum	Astoria Generating Co LP	1,290
7. Roseton Generating Station	Gas, Petroleum	Dynegy Northeast Gen Inc	1,207
8. Bowline Point	Gas, Petroleum	Mirant New York Inc	1,139
9. Blenheim Gilboa	Hydro	Power Authority of State of NY	1,057
10. Indian Point 3	Nuclear	Entergy Nuclear Indian Point 3	985

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
New York						
Consolidated Edison Co-NY Inc Niagara Mohawk Power Corp Long Island Power Authority Power Authority of State of NY New York State Electric & Gas Total Sales, Top Five Providers Percent of Total State Sales	Investor-Owned Investor-Owned Public Power Marketer Investor-Owned	30,628,082 20,934,910 18,834,909 13,898,804 11,388,219 95,684,924 66	12,440,663 10,232,341 8,997,588 0 5,574,081 37,244,673	17,766,204 8,075,084 9,593,209 7,111,745 2,474,015 45,020,257 62	403,022 2,627,485 0 4,209,384 3,313,581 10,553,472 49	18,193 0 244,112 2,577,675 26,542 2,866,522 100

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
New York							
Electric Utilities	32,824	29,585	11,902	-10.7	87.0	84.6	32.4
Coal	3,879	3,891	302	-24.7	10.3	11.1	.8
Petroleum	5,115	4,519	2,320	-8.4	13.6	12.9	6.3
Natural Gas	4,825	1,363	1,017	-15.9	12.8	3.9	2.8
Dual Fired	6,938	9,779	3,258	-8.1	18.4	28.0	8.9
Nuclear	4,831	4,966	498	-22.3	12.8	14.2	1.4
Hydroelectric	3,796	3,787	3,210	-1.8	10.1	10.8	8.7
Pumped Storage	3,440	1,280	1,297	-10.3	9.1	3.7	3.5
Independent Power Producers and Combined							
Heat and Power	4,921	5,395	24,796	19.7	13.0	15.4	67.6
Coal	371	395	3,925	30.0	1.0	1.1	10.7
Petroleum	72	65	1,389	38.9	.2	.2	3.8
Natural Gas	2,026	2,519	2,199	.9	5.4	7.2	6.0
Other Gases	20	23	0	NM	.1	.1	.0
Dual Fired	1,691	1,620	11,430	23.7	4.5	4.6	31.1
Nuclear	0	0	4,531	NM	.0	.0	12.3
Hydroelectric	324	359	950	12.7	.9	1.0	2.6
Other Renewables	417	414	372	-1.3	1.1	1.2	1.0
Total Electric Industry	37,745	34,981	36,696	3	100.0	100.0	100.0
Coal	4,251	4,286	4,226	1	11.3	12.3	11.5
Petroleum	5,187	4,585	3,708	-3.7	13.7	13.1	10.1
Natural Gas	6,851	3,882	3,216	-8.1	18.2	11.1	8.8
Other Gases	20	23	0	NM	.1	.1	.0
Dual Fired	8,628	11,399	14,688	6.1	22.9	32.6	40.0
Nuclear	4,831	4,966	5,028	.4	12.8	14.2	13.7
Hydroelectric	4,120	4,146	4,160	.1	10.9	11.9	11.3
Other Renewables	417	414	373	-1.2	1.1	1.2	1.0
Pumped Storage	3,440	1,280	1,297	-10.3	9.1	3.7	3.5

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
New York								
Electric Utilities	103,762,902	115,840,453	41,578,894	-9.7	82.3	80.0	30.2	
Coal	20,859,090	23,503,467	1,693,854	-24.3	16.6	16.2	1.2	
Petroleum	10,998,162	14,523,573	9,681,490	-1.4	8.7	10.0	7.0	
Natural Gas	17,463,636	19,913,329	7,737,717	-8.6	13.9	13.7	5.6	
Nuclear	29,231,434	31,313,708	3,864,019	-20.1	23.2	21.6	2.8	
Hydroelectric	26,345,630	27,739,454	19,513,620	-3.3	20.9	19.1	14.2	
Other Renewables	10,794	4,603	0	NM	*	*	.0	
Pumped Storage	-1,145,844	-1,157,681	-911,806	NM	9	8	7	
Independent Power Producers and Combined Heat and Power	22,266,670	29,022,795	96,064,422	17.6	17.7	20.0	69.8	
Coal	2,431,566	1,761,313	21,887,213	27.7	1.9	1.2	15.9	
Petroleum	1,032,216	377,209	9,610,109	28.1	.8	.3	7.0	
Natural Gas	14,766,293	22,558,270	20,418,631	3.7	11.7	15.6	14.8	
Other Gases	94,206	88,313	0	NM	.1	.1	.0	
Nuclear	0	0	36,815,186	NM	.0	.0	26.7	
Hydroelectric	1,445,627	1,576,324	4,755,040	14.1	1.1	1.1	3.5	
Other Renewables	2,496,762	2,661,366	2,578,242	.4	2.0	1.8	1.9	
Total Electric Industry	126,029,572	144,863,248	137,643,316	1.0	100.0	100.0	100.0	
Coal	23,290,656	25,264,780	23,581,067	.1	18.5	17.4	17.1	
Petroleum	12,030,378	14,900,782	19,291,599	5.4	9.5	10.3	14.0	
Natural Gas	32,229,929	42,471,599	28,156,348	-1.5	25.6	29.3	20.5	
Other Gases	94,206	88,313	0	NM	.1	.1	.0	
Nuclear	29,231,434	31,313,708	40,679,205	3.7	23.2	21.6	29.6	
Hydroelectric	27,791,257	29,315,778	24,268,660	-1.5	22.1	20.2	17.6	
Other Renewables	2,507,556	2,665,969	2,578,242	.3	2.0	1.8	1.9	
Pumped Storage	-1,145,844	-1,157,681	-911,806	NM	9	8	7	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
New York				
Coal (cents per million Btu)	145.2	143.4	159.5	1.0
Average heat value (Btu per pound)	12,959	13,052	12,545	4
Average sulfur Content (percent)	1.7	1.7	1.8	.6
Petroleum (cents per million Btu)	251.3	203.5	493.2	7.8
Average heat value (Btu per gallon)	149,567	150,742	149,997	*
Average sulfur Content (percent)	.7	.8	.7	*
Natural Gas (cents per million Btu)	223.6	249.6	605.0	11.7
Average heat value (Btu per cubic foot)	1,031	1,029	1,024	1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
New York				
Sulfur Dioxide				
Coal	222	225	187	-1.9
Petroleum	44	62	70	5.4
Natural Gas	*	*	*	5.3
Other	3	1	2	-5.3
Total	269	288	259	4
Nitrogen Oxide				
Coal	87	62	39	-8.6
Petroleum	19	17	23	1.9
Gas	33	34	13	-10.2
Other	6	6	7	1.7
Total	145	119	81	-6.3
Carbon Dioxide				
Coal	24,496	25,919	24,099	2
Petroleum	10,611	12,686	16,322	4.9
Gas	17,646	22,132	14,993	-1.8
Geothermal		_	_	NM
Other	377	407	1,531	16.8
Total	53,129	61,145	56,944	.8

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998 2003		Growth Rate 1994-2003 (Percent)	1994	1998	2003
New York							
Retail Sales (thousand megawatthours)							
Residential	40,105	40,563	47,116	1.8	30.6	30.2	32.7
Commercial	48,828	55,745	72,495	4.5	37.2	41.5	50.3
Industrial	29,467	25,218	21,745	-3.3	22.5	18.8	15.1
Other	12,777	12,669	NA	NM	9.7	9.4	NA
Transportation	NA	NA	2,689	NM	NA	NA	1.9
Total	131,177	134,196	144,045	1.0	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	5,435	5,523	6,743	2.4	37.9	38.7	37.6
Commercial	5,700	6,376	9,372	5.7	39.8	44.7	52.3
Industrial	1,996	1,247	1,552	-2.8	13.9	8.7	8.7
Other	1,189	1,121	NA	NM	8.3	7.9	NA
Transportation	NA	NA	252	NM	NA	NA	1.4
Total	14,320	14,267	17,920	2.5	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	13.55	13.66	14.31	.6	NA	NA	NA
Commercial	11.67	11.63	12.93	1.1	NA	NA	NA
Industrial	6.77	4.95	7.14	.6	NA	NA	NA
Other	9.31	8.85	NA	NM	NA	NA	NA
Transportation	NA	NA	9.38	NM	NA	NA	NA
Total	10.92	10.71	12.44	1.5	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers Other P							
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
New York								
Number of Entities	9	48	NA	4	3	25	7	96
Number of Retail Customers	6,245,232	1,243,176	NA	16,816	1,867	369,904	NA	7,876,995
Retail Sales (thousand megawatthours)	76,373	23,538	NA	186	291	43,657	NA	144,045
Percentage of Retail Sales	53.02	16.34	NA	.13	.20	30.31	NA	100.00
Revenue from Retail Sales (million dollars)	10,480	2,744	NA	16	23	3,065	1,591	17,920
Percentage of Revenue	58.48	15.31	NA	.09	.13	17.10	8.88	100.00
Average Retail Price (cents/kWh)	13.72	11.66	NA	8.73	8.06	7.02	3.65	12.44

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
North Carolina			
NERC Region(s)		SERC	
Primary Energy Source		Coal	
Net Summer Capability (megawatts)	27,263	12	
Electric Utilities	23,725	5	
Independent Power Producers & Combined Heat and Power	3,538	25	
Net Generation (megawatthours)	127,582,319	9	
Electric Utilities	118,433,112	4	
Independent Power Producers & Combined Heat and Power	9,149,207	25	
Emissions (thousand metric tons)			
Sulfur Dioxide	450	10	
Nitrogen Oxide	138	10	
Carbon Dioxide	71,977	13	
Sulfur Dioxide (lbs/MWh)	7.8	13	
Nitrogen Oxide (lbs/MWh)	2.4	30	
Carbon Dioxide (lbs/MWh)	1,244	34	
Total Retail Sales (megawatthours)	121,335,121	9	
Full Service Provider Sales (megawatthours)	121,335,121	7	
Direct Use (megawatthours)	4,091,493	12	
Average Retail Price (cents/kWh)	6.86	22	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
North Carolina			·
1. Roxboro	Petroleum, Coal	Carolina Power & Light Co	2,477
2. Belews Creek	Petroleum, Coal	Duke Energy Corp	2,240
3. McGuire	Nuclear	Duke Energy Corp	2,200
4. Marshall	Petroleum, Coal	Duke Energy Corp	2,090
5. Brunswick	Nuclear	Carolina Power & Light Co	1,683
6. Lincoln Combustion	Petroleum	Duke Energy Corp	1,267
7. Richmond	Petroleum, Gas	Carolina Power & Light Co	1,247
8. G G Allen	Petroleum, Coal	Duke Energy Corp	1,140
9. Rowan	Petroleum, Gas	Progress Energy Ventures	967
10. Asheville	Petroleum, Gas, Coal	Carolina Power & Light Co	937

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
North Carolina						
1. Duke Energy Corp	Investor-Owned	53,024,862	18,385,089	19,630,622	15,009,151	0
Carolina Power & Light Co	Investor-Owned	34,857,713	13,159,332	12,177,971	9,520,410	0
Dominion Virginia Power	Investor-Owned	3,873,836	1,423,184	887,559	1,563,093	0
4. Fayetteville Public Works Comm	Public	2,043,860	850,900	813,515	379,445	0
5. EnergyUnited Elec Member Corp	Cooperative	1,926,340	1,368,999	435,380	121,961	0
Total Sales, Top Five Providers	-	95,726,611	35,187,504	33,945,047	26,594,060	0
Percent of Total State Sales		79	71	81	88	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share	:
Energy Source	1994 1998 2003		2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
orth Carolina							
Electric Utilities	19,767	21,020	23,725	2.0	92.0	92.0	87.0
Coal	12,438	12,440	12,440	*	57.9	54.5	45.6
Petroleum	304	358	400	3.1	1.4	1.6	1.5
Natural Gas	68	96	2,270	47.7	.3	.4	8.3
Dual Fired.	718	1,851	2,176	13.1	3.3	8.1	8.0
Nuclear	4,639	4,691	4,783	.3	21.6	20.5	17.5
Hydroelectric	1,532	1,584	1,562	.2	7.1	6.9	5.7
Pumped Storage	68	0	94	3.7	.3	.0	.3
Independent Power Producers and Combined							
Heat and Power	1,716	1,821	3,538	8.4	8.0	8.0	13.0
Coal	917	826	828	-1.1	4.3	3.6	3.0
Petroleum	18	40	50	12.0	.1	.2	.2
Natural Gas	0	14	566	NM	.0	.1	2.1
Dual Fired	188	191	1.415	25.1	.9	.8	5.2
Hydroelectric	362	405	377	.5	1.7	1.8	1.4
Other Renewables	194	308	265	3.5	.9	1.3	1.0
Other	37	37	37	.0	.2	.2	.1
Total Electric Industry	21,483	22,841	27,263	2.7	100.0	100.0	100.0
Coal	13,356	13,266	13,268	1	62.2	58.1	48.7
Petroleum	321	398	451	3.8	1.5	1.7	1.3
Natural Gas	68	110	2,836	51.4	.3	.5	10.4
Dual Fired	906	2,042	3,591	16.5	4.2	8.9	13.2
Nuclear	4,639	4,691	4,783	.3	21.6	20.5	17.5
Hydroelectric	1,894	1,990	1,939	.3	8.8	8.7	7.1
Other Renewables	194	307	264	3.5	.9	1.3	1.0
Pumped Storage	68	0	94	3.7	.3	.0	.3
Other	37	37	37	.0	.2	.2	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
North Carolina								
Electric Utilities	91,454,784	113,112,235	118,433,112	2.9	90.7	93.2	92.8	
Coal	53,234,497	69,000,633	70,630,278	3.2	52.8	56.8	55.4	
Petroleum	199,418	285,902	459,947	9.7	.2	.2	.4	
Natural Gas	69,076	936,314	1,257,328	38.0	.1	.8	1.0	
Nuclear	32,346,007	38,778,211	40,906,900	2.6	32.1	31.9	32.1	
Hydroelectric	5,224,967	4,045,503	5,059,386	4	5.2	3.3	4.0	
Pumped Storage	380,819	65,672	119,273	-12.1	.4	.1	.1	
Independent Power Producers and Combined								
Heat and Power	9,373,878	8,266,589	9,149,207	3	9.3	6.8	7.2	
Coal	4,889,893	3,948,830	4,145,953	-1.8	4.8	3.3	3.3	
Petroleum	252,816	405,412	323,748	2.8	.3	.3	.3	
Natural Gas	241,166	348,043	323,038	3.3	.2	.3	.3	
Other Gases	0	0	17	NM	.0	.0	.0	
Hydroelectric	1,967,309	1,692,704	2,141,558	.9	2.0	1.4	1.7	
Other Renewables	1,761,917	1,622,244	2,031,422	1.6	1.7	1.3	1.6	
Other	260,777	249,356	183,472	-3.8	.3	.2	.1	
Total Electric Industry	100,828,662	121,378,824	127,582,319	2.6	100.0	100.0	100.0	
Coal	58,124,390	72,949,463	74,776,231	2.8	57.6	60.1	58.6	
Petroleum	452,234	691,314	783,695	6.3	.4	.6	.6	
Natural Gas	310,242	1,284,357	1,580,366	19.8	.3	1.1	1.2	
Other Gases	0	0	17	NM	.0	.0	.0	
Nuclear	32,346,007	38,778,211	40,906,900	2.6	32.1	31.9	32.1	
Hydroelectric	7,192,276	5,738,207	7,200,944	*	7.1	4.7	5.6	
Other Renewables	1,761,917	1,622,244	2,031,422	1.6	1.7	1.3	1.6	
Pumped Storage	380,819	65,672	119,273	-12.1	.4	.1	.1	
Other	260,777	249,356	183,472	-3.8	.3	.2	.1	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
North Carolina				
Coal (cents per million Btu)	168.2	143.8	178.4	0.7
Average heat value (Btu per pound)	12,416	12,398	12,423	*
Average sulfur Content (percent)	.9	.9	.9	-1.0
Petroleum (cents per million Btu)	383.8	310.5	622.7	5.5
Average heat value (Btu per gallon)	138,239	138,168	140,847	.2
Average sulfur Content (percent)	.2	.2	.5	10.1
Natural Gas (cents per million Btu)	325.7	267.9	560.4	6.2
Average heat value (Btu per cubic foot)	1,038	1.048	1.032	1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
North Carolina				
Sulfur Dioxide				
Coal	377	446	437	1.6
Petroleum	1	2	4	14.8
Natural Gas	_	*	*	NM
Other	15	2	10	-4.7
Total	394	450	450	1.5
Nitrogen Oxide				
Coal	220	247	133	-5.5
Petroleum	1	2	2	.4
Gas	1	1	*	-3.9
Other	4	4	3	5
Total	226	253	138	-5.3
Carbon Dioxide				
Coal	55,277	68,007	69,848	2.6
Petroleum	1,143	1,497	1,258	1.1
Gas	281	998	789	12.1
Geothermal	_	_	_	NM
Other	15	13	82	20.8
Total	56,716	70,515	71,977	2.7

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Percentage Share		
Sector	1994 1998 2003	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
North Carolina							
Retail Sales (thousand megawatthours)							
Residential	37,207	42,890	49,349	3.2	37.3	37.8	40.7
Commercial	27,458	33,637	41,672	4.7	27.5	29.6	34.3
Industrial	33,307	34,986	30,314	-1.0	33.4	30.8	25.0
Other	1,817	2,083	NA	NM	1.8	1.8	NA
Total	99,789	113,596	121,335	2.2	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	3,041	3,434	4,106	3.4	46.0	46.8	49.3
Commercial	1,802	2,137	2,770	4.9	27.3	29.1	33.3
Industrial	1,642	1,620	1,453	-1.3	24.8	22.1	17.4
Other	126	142	NA	NM	1.9	1.9	NA
Total	6,611	7,332	8,329	2.6	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	8.17	8.01	8.32	.2	NA	NA	NA
Commercial	6.56	6.35	6.65	.1	NA	NA	NA
Industrial	4.93	4.63	4.79	3	NA	NA	NA
Other	6.91	6.79	NA	NM	NA	NA	NA
Total	6.62	6.45	6.86	.4	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers					Other Providers			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total	
North Carolina									
Number of Entities	3	72	1	32	3	NA	NA	111	
Number of Retail Customers	2,934,296	538,836	4	892,553	3	NA	NA	4,365,692	
Retail Sales (thousand megawatthours)	91,756	14,823	6	14,719	31	NA	NA	121,335	
Percentage of Retail Sales	75.62	12.22	*	12.13	.03	NA	NA	100.00	
Revenue from Retail Sales (million dollars)	5,877	1,208	*	1,244	*	NA	NA	8,329	
Percentage of Revenue	70.56	14.50	*	14.94	*	NA	NA	100.00	
Average Retail Price (cents/kWh)	6.40	8.15	3.91	8.45	.39	NA	NA	6.86	

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
North Dakota		
NERC Region(s)		MAPP
Primary Energy Source		Coal
Net Summer Capability (megawatts)	4,664	41
Electric Utilities	4,563	35
Independent Power Producers & Combined Heat and Power	101	49
Net Generation (megawatthours)	31,322,129	38
Electric Utilities	31,075,012	32
Independent Power Producers & Combined Heat and Power	247,117	48
Emissions (thousand metric tons)		
Sulfur Dioxide	128	22
Nitrogen Oxide	70	28
Carbon Dioxide	31,770	30
Sulfur Dioxide (lbs/MWh)	9.0	9
Nitrogen Oxide (lbs/MWh)	4.9	3
Carbon Dioxide (lbs/MWh)	2,236	3
Total Retail Sales (megawatthours)	10,461,108	46
Full Service Provider Sales (megawatthours)	10,461,108	43
Direct Use (megawatthours)	166,558	44
Average Retail Price (cents/kWh)	5.47	45

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
North Dakota			
1. Coal Creek	Petroleum, Coal	Great River Energy	1,116
2. Antelope Valley	Petroleum, Coal	Basin Electric Power Coop	900
3. Milton R Young	Petroleum, Coal	Minnkota Power Coop Inc	705
4. Leland Olds	Petroleum, Coal	Basin Electric Power Coop	669
5. Coyote	Petroleum, Coal	Otter Tail Power Co	427
6. Garrison	Hydro	USCE-Missouri River District	371
7. Stanton	Petroleum, Coal	Great River Energy	188
8. R M Heskett	Gas, Coal	MDU Resources Group Inc	104
9. FPL Energy North Dakota Wind I/II	Other	FPL Energy North Dakota Wind LLC	62
10. Jamestown	Petroleum	Otter Tail Power Co	45

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
North Dakota						
1. Northern States Power Co	Investor-Owned	2,070,050	745,836	1,001,057	323,157	0
2. Otter Tail Power Co	Investor-Owned	1,501,854	527,298	917,288	57,268	0
3. MDU Resources Group Inc	Investor-Owned	1,359,933	523,351	712,789	123,793	0
4. Basin Electric Power Coop	Cooperative	922,406	0	0	922,406	0
5. Cass County Electric Coop Inc	Cooperative	694,752	391,322	246,918	56,512	0
Total Sales, Top Five Providers	-	6,548,995	2,187,807	2,878,052	1,483,136	0
Percent of Total State Sales		63	59	76	50	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual]	Percentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
orth Dakota							
Electric Utilities	4,489	4,656	4,563	0.2	99.2	99.3	97.8
Coal	3,867	4,068	4,107	.7	85.4	86.7	88.1
Petroleum	67	61	72	.8	1.5	1.3	1.5
Natural Gas	10	9	10	.0	.2	.2	.2
Hydroelectric	545	518	371	-4.2	12.0	11.0	8.0
Other Renewables	0	0	3	NM	.0	.0	.1
Independent Power Producers and Combined				44.0		_	
Heat and Power	37	34	101	11.8	.8	.7	2.2
Coal	18	18	21	1.7	.4	.4	.4
Natural Gas	3	0	0	NM	.1	.0	.0
Other Gases	7	7	8	1.5	.2	.1	.2
Other Renewables	9	9	72	26.0	.2	.2	1.5
Total Electric Industry	4,526	4,690	4,664	.3	100.0	100.0	100.0
Coal	3,885	4.086	4.129	.7	85.8	87.1	88.5
	67	61	72	.8	1.5	1.3	1.5
Petroleum			10	-2.9	.3	.2	
	13	9	10				.2
Petroleum		9 7	8	1.5	.2	.1	.2
Natural Gas	13	9 7 518				.1 11.0	.2 .2 8.0

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	:
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Jorth Dakota							
Electric Utilities	29,003,713	30,518,976	31,075,012	0.8	99.5	99.5	99.2
Coal	27,099,914	28,176,015	29,298,347	.9	92.9	91.9	93.5
Petroleum	47,340	47,091	45,648	4	.2	.2	.1
Natural Gas	-2	-78	-47	NM	.0	.0	.0
Hydroelectric	1,856,461	2,295,948	1,723,904	8	6.4	7.5	5.5
Other Renewables	0	0	7,160	NM	.0	.0	*
Independent Power Producers and Combined							
Heat and Power	152,112	152,975	247,117	5.5	.5	.5	.8
Coal	81,173	80,845	128,964	5.3	.3	.3	.4
Petroleum	13,520	17,433	6,244	-8.2	*	.1	*
Natural Gas	57	807	9,493	76.5	.0	*	*
Other Gases	43,779	52,366	50,096	1.5	.1	.2	.2
Other Renewables	13,583	1,524	52,320	16.2	*	*	.2
Total Electric Industry	29,155,825	30,671,951	31,322,129	.8	100.0	100.0	100.0
Coal	27,181,087	28,256,860	29,427,311	.9	93.2	92.1	94.0
Petroleum	60,860	64,524	51,892	-1.8	.2	.2	.2
Natural Gas	55	729	9,446	77.1	.0	*	*
Other Gases	43,779	52,366	50,096	1.5	.1	.2	.2
Hydroelectric	1,856,461	2,295,948	1,723,904	8	6.4	7.5	5.5
Other Renewables	13,583	1,524	59,480	17.8	*	*	.2

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
North Dakota				
Coal (cents per million Btu)	70.4	76.2	74.2	0.6
Average heat value (Btu per pound)	6,593	6,566	6,549	1
Average sulfur Content (percent)	.8	.8	.7	-1.0
Petroleum (cents per million Btu)	407.2	311.9	675.9	5.8
Average heat value (Btu per gallon)	138,683	138,812	138,996	*
Average sulfur Content (percent)	.4	.4	.4	-1.0
Natural Gas (cents per million Btu)	375.7	369.3	744.3	7.9
Average heat value (Btu per cubic foot)	1,095	1,050	1.029	7

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
North Dakota				
Sulfur Dioxide				
Coal	139	178	128	-0.9
Petroleum	*	*	*	-8.2
Natural Gas	_	_	_	NM
Other	_	_	*	NM
Total	139	178	128	9
Nitrogen Oxide				
Coal	66	91	70	.6
Petroleum	*	*	*	-6.7
Gas	_	_	*	NM
Other	_	*	*	NM
Total	66	91	70	.6
Carbon Dioxide				
Coal	30,597	31,887	31,684	.4
Petroleum	105	91	63	-5.6
Gas	*	2	23	60.8
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	30,702	31,980	31,770	.4

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Shai	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
North Dakota							
Retail Sales (thousand megawatthours)							
Residential	3,243	3,272	3,707	1.5	42.2	39.8	35.4
Commercial	1,884	2,305	3,800	8.1	24.5	28.0	36.3
Industrial	2,011	2,187	2,954	4.4	26.2	26.6	28.2
Other	542	456	NA	NM	7.1	5.5	NA
Total	7,681	8,220	10,461	3.5	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	207	212	241	1.7	46.6	45.2	42.1
Commercial	122	143	214	6.4	27.5	30.5	37.4
Industrial	95	94	117	2.3	21.4	20.0	20.4
Other	21	19	NA	NM	4.7	4.0	NA
Total	444	469	572	2.8	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	6.37	6.49	6.49	.2	NA	NA	NA
Commercial	6.45	6.20	5.64	-1.5	NA	NA	NA
Industrial	4.71	4.30	3.96	-1.9	NA	NA	NA
Other	3.82	4.27	NA	NM	NA	NA	NA
Total	5.77	5.70	5.47	6	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pro	Other I				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
North Dakota								
Number of Entities	3	12	1	23	NA	NA	NA	39
Number of Retail Customers	213,027	11,197	18	130,081	NA	NA	NA	354,323
Retail Sales (thousand megawatthours)	4,932	279	193	5,057	NA	NA	NA	10,461
Percentage of Retail Sales	47.14	2.67	1.85	48.34	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	291	13	3	266	NA	NA	NA	572
Percentage of Revenue	50.80	2.26	.49	46.45	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	5.89	4.63	1.45	5.25	NA	NA	NA	5.47

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Ohio		
NERC Region(s)		ECAR
Primary Energy Source		Coal
Net Summer Capability (megawatts)	34,060	8
Electric Utilities	27,695	2
Independent Power Producers & Combined Heat and Power	6,367	17
Net Generation (megawatthours)	146,638,128	6
Electric Utilities	139,086,083	2
Independent Power Producers & Combined Heat and Power	7,552,045	30
Emissions (thousand metric tons)		
Sulfur Dioxide	1,141	1
Nitrogen Oxide	335	1
Carbon Dioxide	127,703	3
Sulfur Dioxide (lbs/MWh)	17.2	1
Nitrogen Oxide (lbs/MWh)	5.0	2
Carbon Dioxide (lbs/MWh)	1,920	12
Total Retail Sales (megawatthours)	152,189,238	4
Full Service Provider Sales (megawatthours)	127,249,081	5
Deregulated Sales (megawatthours)	24,940,157	3
Direct Use (megawatthours)	1,486,344	25
Average Retail Price (cents/kWh)	6.73	25

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Ohio			
General James M Gavin	Petroleum, Coal	Ohio Power Co	2,600
2. J M Stuart	Petroleum, Coal	Dayton Power & Light Co	2,350
3. W H Sammis	Petroleum, Coal	Ohio Edison Co	2,233
4. Conesville	Petroleum, Coal	Columbus Southern Power Co	1,925
5. Cardinal	Petroleum, Coal	Cardinal Operating Co	1,800
6. Muskingum River	Petroleum, Coal	Ohio Power Co	1,365
7. Walter C Beckjord	Petroleum, Coal	Cincinnati Gas & Electric Co	1,304
8. W H Zimmer	Petroleum, Coal	Cincinnati Gas & Electric Co	1,300
9. Miami Fort	Petroleum, Coal	Cincinnati Gas & Electric Co	1,300
10. Hanging Rock Energy Facility	Gas	Duke Energy Hanging Rock LLC	1,288

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Ohio						
1. Ohio Power Co	Investor-Owned	27,209,193	7,183,630	5,707,432	14,318,131	0
2. Columbus Southern Power Co	Investor-Owned	16,960,049	6,735,021	7,464,767	2,760,261	0
3. Ohio Edison Co	Investor-Owned	16,879,469	6,298,405	4,153,921	6,427,143	0
4. Cincinnati Gas & Electric Co	Investor-Owned	16,796,420	6,736,891	5,666,038	4,393,491	0
5. Dayton Power & Light Co	Investor-Owned	11,704,556	5,070,736	4,430,018	2,199,295	4,507
Total Sales, Top Five Providers		89,549,687	32,024,683	27,422,176	30,098,321	4,507
Percent of Total State Sales		59	65	61	52	100

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	F	Percentage Share	!
Energy Source	1994	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
hio							
Electric Utilities	. 27,193	26,767	27,695	0.2	98.1	98.8	81.3
Coal		22,456	21,258	9	83.2	82.9	62.4
Petroleum	. 870	771	946	.9	3.1	2.8	2.8
Natural Gas	. 502	514	2,032	16.8	1.8	1.9	6.0
Dual Fired	. 512	771	1,095	8.8	1.8	2.8	3.2
Nuclear	. 2,037	2,042	2,108	.4	7.4	7.5	6.2
Hydroelectric	. 124	123	162	3.0	.4	.5	.5
Other Renewables	90	90	94	.5	.3	.3	.3
Independent Power Producers and Combined							
Heat and Power	. 516	322	6,367	32,2	1.9	1.2	18.7
Coal		199	1.095	12.5	1.4	.7	3.2
Petroleum		6	49	26.3	*	*	.1
Natural Gas		1	3,589	119.8	*	*	10.5
Other Gases		63	81	1.2	.3	.2	.2
Dual Fired.		17	1,535	58.7	.1	.1	4.5
Hydroelectric		0	0	NM	*	.0	
Other Renewables		36	18	-5.2	.1	.1	.1
Total Electric Industry	. 27,709	27,091	34.060	2,3	100.0	100.0	100.0
Coal	. 23,436	22,655	22,352	5	84.6	83.6	65.6
Petroleum	-,	777	995	1.4	3.2	2.9	2.9
Natural Gas		516	5,621	30.7	1.8	1.9	16.5
Other Gases		63	81	1.2	.3	.2	.2
Dual Fired		788	2,630	19.3	1.9	2.9	7.7
Nuclear		2,042	2,108	.4	7.4	7.5	6.2
Hydroelectric	,	123	162	2.7	.5	.5	.5
Other Renewables		127	111	8	.4	.5	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
hio							
Electric Utilities	129,020,582	146,448,159	139,086,083	0.8	97.9	99.0	94.8
Coal	117,354,244	128,696,073	129,255,272	1.1	89.1	87.0	88.1
Petroleum	372,313	351,408	387,257	.4	.3	.2	.3
Natural Gas	152,957	518,519	456,255	12.9	.1	.3	
Nuclear	10,952,247	16,475,732	8,475,016	-2.8	8.3	11.1	5.
Hydroelectric	188,821	406,427	510,835	11.7	.1	.3	
Other Renewables	0	0	1,448	NM	.0	.0	
Independent Power Producers and Combined							
Heat and Power	2,743,028	1,491,898	7,552,045	11.9	2.1	1.0	5.
Coal	1,815,314	527,108	5,513,865	13.1	1.4	.4	3.
Petroleum	52,175	19,430	22,897	-8.7	*	*	
Natural Gas	218,634	159,059	1,337,328	22.3	.2	.1	
Other Gases	144,300	185,762	212,523	4.4	.1	.1	
Hydroelectric	2,950	0	0	NM	*	.0	
Other Renewables	509,655	600,539	439,269	-1.6	.4	.4	
Other	0	0	26,163	NM	.0	.0	:
Total Electric Industry	131,763,610	147,940,057	146,638,128	1.2	100.0	100.0	100.0
Coal	119,169,558	129,223,181	134,769,137	1.4	90.4	87.3	91.
Petroleum	424,488	370,838	410,154	4	.3	.3	
Natural Gas	371,591	677,578	1,793,583	19.1	.3	.5	1.
Other Gases	144,300	185,762	212,523	4.4	.1	.1	
Nuclear	10,952,247	16,475,732	8,475,016	-2.8	8.3	11.1	5.
Hydroelectric	191,771	406,427	510,835	11.5	.1	.3	
Other Renewables	509,655	600,539	440,717	-1.6	.4	.4	
Other	0	0	26,163	NM	.0	.0	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Ohio				
Coal (cents per million Btu)	143.9	136.5	121.2	-1.9
Average heat value (Btu per pound)	12,052	11,913	12,160	.1
Average sulfur Content (percent)	2.3	2.0	2.1	-1.0
Petroleum (cents per million Btu)	196.6	202.1	730.9	15.7
Average heat value (Btu per gallon)	82,225	105,737	137,809	5.9
Average sulfur Content (percent)	2.7	2.7	.2	-24.0
Natural Gas (cents per million Btu)	374.5	308.4	598.0	5.3
Average heat value (Btu per cubic foot)	1,029	1,027	1,037	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Ohio	·			
Sulfur Dioxide				
Coal	1,892	1,268	1,135	-5.5
Petroleum	3	18	4	3.1
Natural Gas	_	_	*	NM
Other	10	1	2	-16.4
Total	1,905	1,287	1,141	-5.5
Nitrogen Oxide				
Coal	483	484	330	-4.2
Petroleum	1	1	3	9.4
Gas	1	2	1	2.9
Other	2	2	1	-7.9
Total	488	488	335	-4.1
Carbon Dioxide				
Coal	112,295	121,756	126,072	1.3
Petroleum	915	975	408	-8.6
Gas	356	903	1,223	14.7
Geothermal	_	_		NM
Other	9	_	_	NM
Total	113,576	123,635	127,703	1.3

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

			2003	Annual	Percentage Share		
Sector	1994	1998		Growth Rate 1994-2003 (Percent)	1994	1998	2003
Ohio							
Retail Sales (thousand megawatthours)							
Residential	41,791	44,516	49,621	1.9	27.1	27.9	32.6
Commercial	34,053	38,472	44,737	3.1	22.1	24.1	29.4
Industrial	74,010	72,998	57,828	-2.7	47.9	45.7	38.0
Other	4,522	3,807	NA	NM	2.9	2.4	NA
Transportation	NA	NA	5	NM	NA	NA	.0
Total	154,377	159,793	152,189	2	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	3,576	3,875	4,100	1.5	37.4	38.0	40.0
Commercial	2,628	2,950	3,377	2.8	27.5	28.9	33.0
Industrial	3,061	3,142	2,768	-1.1	32.0	30.8	27.0
Other	288	231	NA	NM	3.0	2.3	NA
Total	9,553	10,198	10,246	.8	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	8.56	8.70	8.26	4	NA	NA	NA
Commercial	7.72	7.67	7.55	3	NA	NA	NA
Industrial	4.14	4.30	4.79	1.6	NA	NA	NA
Other	6.36	6.07	NA	NM	NA	NA	NA
Transportation	NA	NA	6.17	NM	NA	NA	NA
Total	6.19	6.38	6.73	.9	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other Pr				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Ohio								
Number of Entities	9	85	NA	25	1	10	6	136
Number of Retail Customers	3,751,772	370,524	NA	358,050	1	916,961	NA	5,397,308
Retail Sales (thousand megawatthours)	110,660	9,334	NA	7,126	130	24,940	NA	152,189
Percentage of Retail Sales	72.71	6.13	NA	4.68	.09	16.39	NA	100.00
Revenue from Retail Sales (million dollars)	7,061	647	NA	495	4	970	1,068	10,246
Percentage of Revenue	68.91	6.32	NA	4.83	.04	9.47	10.42	100.00
Average Retail Price (cents/kWh)	6.38	6.94	NA	6.95	3.15	3.89	4.28	6.73

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
Oklahoma			
NERC Region(s)		SPP	
Primary Energy Source		Coal	
Net Summer Capability (megawatts)	18,239	22	
Electric Utilities	13,464	18	
Independent Power Producers & Combined Heat and Power	4,776	19	
Net Generation (megawatthours)	60,626,856	22	
Electric Utilities	49,776,514	19	
Independent Power Producers & Combined Heat and Power	10,850,342	22	
Emissions (thousand metric tons)			
Sulfur Dioxide	110	25	
Nitrogen Oxide	86	18	
Carbon Dioxide	48,521	18	
Sulfur Dioxide (lbs/MWh)	4.0	31	
Nitrogen Oxide (lbs/MWh)	3.1	19	
Carbon Dioxide (lbs/MWh)	1,764	16	
Total Retail Sales (megawatthours)	50,428,168	26	
Full Service Provider Sales (megawatthours)	50,428,168	25	
Direct Use (megawatthours)	1,152,560	29	
Average Retail Price (cents/kWh)	6.35	31	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Oklahoma			·
1. Muskogee	Gas, Coal	Oklahoma Gas & Electric Co	1,666
2. Northeastern	Gas, Coal	Public Service Co of Oklahoma	1,549
3. Seminole	Petroleum, Gas	Oklahoma Gas & Electric Co	1,536
4. Kiamichi Energy Facility	Gas	Kiowa Power Partners LLC	1,178
5. Oneta Energy Center	Gas	Calpine Central, L.P.	1,082
6. Sooner	Petroleum, Coal	Oklahoma Gas & Electric Co	1,019
7. GRDA	Petroleum, Gas, Coal	Grand River Dam Authority	1,010
8. Riverside	Gas	Public Service Co of Oklahoma	920
9. Horseshoe Lake	Petroleum, Gas	Oklahoma Gas & Electric Co	860
10. Green Country Energy LLC	Gas	Green Country OP Services LLC	779

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

	Ownership					
Entity	Туре	All Sectors	Residential	Commercial	Industrial	Transportation
Oklahoma						
Oklahoma Gas & Electric Co	Investor-Owned	20,824,201	7,510,506	7,616,621	5,697,074	0
Public Service Co of Oklahoma	Investor-Owned	16,719,328	5,718,453	6,150,614	4,850,261	0
3. Oklahoma Electric Coop Inc	Cooperative	808,129	570,842	174,585	62,702	0
4. City of Edmond	Public	697,504	393,742	165,378	138,384	0
5. Grand River Dam Authority	Public	546,378	0	40,717	505,661	0
Total Sales, Top Five Providers		39,595,540	14,193,543	14,147,915	11,254,082	0
Percent of Total State Sales		79	70	83	85	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual		Percentage Share	2
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
klahoma							
Electric Utilities	12,898	12,622	13,464	0.5	94.3	94.3	73.8
Coal	4,868	4,837	4,941	.2	35.6	36.1	27.1
Petroleum	30	28	36	2.0	.2	.2	
Natural Gas	858	933	5,421	22.7	6.3	7.0	29.3
Other Gases	52	55	61	1.8	.4	.4	.3
Dual Fired	6,055	5,734	1,945	-11.9	44.3	42.8	10.
Hydroelectric	775	775	800	.4	5.7	5.8	4.4
Pumped Storage	260	260	260	.0	1.9	1.9	1.4
Independent Power Producers and Combined							
Heat and Power	785	767	4,776	22.2	5.7	5.7	26.2
Coal	434	434	391	-1.2	3.2	3.2	2.1
Petroleum	0	0	2	NM	.0	.0	2
Natural Gas	245	231	4,102	36.8	1.8	1.7	22.5
Other Gases	17	17	17	.0	.1	.1	
Dual Fired.	13	9	10	-2.9	.1	.1	.1
Other Renewables	76	76	254	14.3	.6	.6	1.4
Total Electric Industry	13,683	13,389	18,239	3.2	100.0	100.0	100.0
Coal	5,302	5,271	5,332	.1	38.7	39.4	29.2
Petroleum	30	28	37	2.4	.2	.2	.2
Natural Gas	1,103	1,164	9,522	27.1	8.1	8.7	52.2
Other Gases	69	72	78	1.4	.5	.5	.4
Dual Fired	6,068	5,743	1,955	-11.8	44.3	42.9	10.7
Hydroelectric	775	775	800	.4	5.7	5.8	4.4
Other Renewables	76	76	255	14.4	.6	.6	1.4
Pumped Storage	260	260	260	.0	1.9	1.9	1.4

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share		
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Oklahoma							
Electric Utilities	45,380,625	51,454,036	49,776,514	1.0	90.7	91.5	82.1
Coal	27,453,911	31,026,837	34,200,128	2.5	54.8	55.2	56.4
Petroleum	11,456	7,541	111,555	28.8	*	*	.2
Natural Gas	15,450,623	16,999,645	13,872,606	-1.2	30.9	30.2	22.9
Hydroelectric	2,514,648	3,508,748	1,798,412	-3.7	5.0	6.2	3.0
Pumped Storage	-50,013	-88,735	-206,187	NM	1	2	3
Independent Power Producers and Combined							
Heat and Power	4,678,147	4,775,207	10,850,342	9.8	9.3	8.5	17.9
Coal	3,046,936	3,197,193	2,476,198	-2.3	6.1	5.7	4.1
Petroleum	31,165	6,351	49,655	5.3	.1	*	.1
Natural Gas	1,258,259	1,301,773	7,950,090	22.7	2.5	2.3	13.1
Other Gases	70,396	49,819	45,408	-4.8	.1	.1	.1
Other Renewables	271,391	220,071	321,593	1.9	.5	.4	.5
Other	0	0	7,398	NM	.0	.0	*
Total Electric Industry	50,058,772	56,229,243	60,626,856	2.2	100.0	100.0	100.0
Coal	30,500,847	34,224,030	36,676,326	2.1	60.9	60.9	60.5
Petroleum	42,621	13,892	161,210	15.9	.1	*	.3
Natural Gas	16,708,882	18,301,418	21,822,696	3.0	33.4	32.5	36.0
Other Gases	70,396	49,819	45,408	-4.8	.1	.1	.1
Hydroelectric	2,514,648	3,508,748	1,798,412	-3.7	5.0	6.2	3.0
Other Renewables	271,391	220,071	321,593	1.9	.5	.4	.5
Pumped Storage	-50,013	-88,735	-206,187	NM	1	2	3
Other	0	0	7,398	NM	.0	.0	*

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Oklahoma				
Coal (cents per million Btu)	102.0	91.0	W	W
Average heat value (Btu per pound)	8,573	8,651	8,872	0.4
Average sulfur Content (percent)	.4	.3	.4	1.7
Petroleum (cents per million Btu)	370.3	292.2	548.0	4.5
Average heat value (Btu per gallon)	139,562	141,968	142,204	.2
Average sulfur Content (percent)	.4	.1	.4	1.0
Natural Gas (cents per million Btu)	266.7	241.2	542.0	8.2
Average heat value (Btu per cubic foot)	1,034	1,030	1,030	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Oklahoma				
Sulfur Dioxide				
Coal	97	168	106	1.0
Petroleum	*	*	1	36.6
Natural Gas	*	*	*	6.6
Other	2	*	3	.4
Total	99	169	110	1.1
Nitrogen Oxide				
Coal	143	72	66	-8.2
Petroleum	*	*	*	8.8
Gas	20	26	19	8
Other	1	1	1	5.7
Total	164	99	86	-6.9
Carbon Dioxide				
Coal	31,202	34,746	36,910	1.9
Petroleum	131	40	265	8.1
Gas	9,385	10,504	11,346	2.1
Geothermal	_	_	_	NM
Other	_	*	_	NM
Total	40,719	45,291	48,521	2.0

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Oklahoma							
Retail Sales (thousand megawatthours)							
Residential	16,128	19,511	20,162	2.5	39.2	40.7	40.0
Commercial	11,121	12,459	16,958	4.8	27.0	26.0	33.6
Industrial	11,721	13,175	13,308	1.4	28.5	27.5	26.4
Other	2,173	2,752	NA	NM	5.3	5.8	NA
Total	41,143	47,897	50,428	2.3	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,134	1,282	1,507	3.2	47.2	49.3	47.1
Commercial	677	705	1,083	5.4	28.2	27.1	33.8
Industrial	477	481	611	2.8	19.9	18.5	19.1
Other	115	134	NA	NM	4.8	5.1	NA
Total	2,402	2,602	3,201	3.2	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.03	6.57	7.47	.7	NA	NA	NA
Commercial	6.09	5.66	6.38	.5	NA	NA	NA
Industrial	4.07	3.65	4.59	1.3	NA	NA	NA
Other	5.29	4.88	NA	NM	NA	NA	NA
Total	5.84	5.43	6.35	.9	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pro		Other 1			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Oklahoma								
Number of Entities	4	62	1	30	1	NA	NA	98
Number of Retail Customers	1,179,570	189,346	1	436,446	79	NA	NA	1,805,442
Retail Sales (thousand megawatthours)	37,946	4,390	11	7,940	140	NA	NA	50,428
Percentage of Retail Sales	75.25	8.70	.02	15.75	.28	NA	NA	100.00
Revenue from Retail Sales (million dollars)	2,302	293	*	599	7	NA	NA	3,201
Percentage of Revenue	71.91	9.14	.01	18.71	.23	NA	NA	100.00
Average Retail Price (cents/kWh)	6.07	6.66	2.63	7.54	5.26	NA	NA	6.35

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Oregon		
NERC Region(s)		WECC
Primary Energy Source		Hydro
Net Summer Capability (megawatts)	12,882	28
Electric Utilities	10,338	22
Independent Power Producers & Combined Heat and Power	2,545	30
Net Generation (megawatthours)	48,966,139	28
Electric Utilities	38,577,937	28
Independent Power Producers & Combined Heat and Power	10,388,202	24
Emissions (thousand metric tons)		
Sulfur Dioxide	13	44
Nitrogen Oxide	12	43
Carbon Dioxide	8,765	41
Sulfur Dioxide (lbs/MWh)	.6	47
Nitrogen Oxide (lbs/MWh)	.5	49
Carbon Dioxide (lbs/MWh)	395	48
Total Retail Sales (megawatthours)	45,194,730	29
Full Service Provider Sales (megawatthours)	45,194,730	29
Direct Use (megawatthours)	690,673	32
Average Retail Price (cents/kWh)	6.18	34

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Plant Energy Sources Operating Company		Net Summer Capability (MW)
Oregon			
1. John Day	Hydro	USCE-North Pacific Division	2,484
2. The Dalles	Hydro	USCE-North Pacific Division	1,961
3. Bonneville	Hydro	USCE-North Pacific Division	1,212
4. McNary	Hydro	USCE-North Pacific Division	1,127
5. Hermiston Power Partnership	Gas	Hermiston Power Partnership	615
6. Boardman	Petroleum, Coal	Portland General Electric Co	556
7. Beaver	Petroleum, Gas	Portland General Electric Co	495
8. Hermiston Generating Plant	Gas	Hermiston Generating Co LP	470
9. Klamath Cogeneration Plant	Gas	Pacific Klamath Energy Inc	470
10. Hells Canyon	Hydro	Idaho Power Co	381

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Oregon						
Portland General Electric Co	Investor-Owned	18,425,854	7,098,730	7,108,498	4,213,247	5,379
2. PacifiCorp	Investor-Owned	13,227,334	5,226,018	4,746,250	3,245,165	9,901
3. Eugene City of	Public	2,542,158	930,910	904,048	707,200	0
4. Central Lincoln People's Ut Dt	Public	1,239,578	391,292	198,303	649,983	0
5. Clatskanie Peoples Util Dist	Public	877,211	67,505	28,259	781,447	0
Total Sales, Top Five Providers		36,312,135	13,714,455	12,985,358	9,597,042	15,280
Percent of Total State Sales		80	77	84	80	100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
regon							
Electric Utilities	10,166	10,449	10,338	0.2	97.4	92.2	80.3
Coal	508	528	556	1.0	4.9	4.7	4.3
Petroleum	3	0	0	NM	*	.0).
Natural Gas	148	354	34	-15.1	1.4	3.1	.3
Dual Fired	448	495	691	4.9	4.3	4.4	5.4
Hydroelectric	9,021	9,032	9,020	*	86.5	79.7	70.
Other Renewables	38	40	37	3	.4	.4	.3
Independent Power Producers and Combined	2/5	004	2 - 4 -	20.6		= 0	10.6
Heat and Power	265	884	2,545	28.6	2.5	7.8	19.8
Coal	13	13	10	-2.9	.1	.1	
Natural Gas	1	584	2,049	133.3	*	5.2	15.9
Dual Fired	0	0	4	NM	.0	.0	:
Hydroelectric	109	96	92	-1.9	1.0	.8	.′
Other Renewables	142	191	390	11.9	1.4	1.7	3.0
Total Electric Industry	10,433	11,334	12,882	2.4	100.0	100.0	100.0
Coal	521	541	566	.9	5.0	4.8	4.4
Petroleum	3	0	0	NM	*	.0	
Natural Gas	150	938	2,082	33.9	1.4	8.3	16.2
	448	495	695	5.0	4.3	4.4	5.4
Dual Fired							
Dual Fired	9,131	9,128	9,112	*	87.5	80.5	70.

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	1	Percentage Share	e
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Oregon							
Electric Utilities	37,490,089	46,352,310	38,577,937	0.3	97.5	90.6	78.8
Coal	3,814,009	3,348,089	4,285,697	1.3	9.9	6.5	8.8
Petroleum	5,398	33,127	44,035	26.3	*	.1	.1
Natural Gas	2,754,774	3,466,916	1,232,518	-8.5	7.2	6.8	2.5
Hydroelectric	30,915,908	39,504,178	32,980,206	.7	80.4	77.2	67.4
Other Renewables	0	0	35,481	NM	.0	.0	.1
Independent Power Producers and Combined							
Heat and Power	950,723	4,796,174	10,388,202	30.4	2.5	9.4	21.2
Coal	19,461	26,533	19,151	2	.1	.1	*
Petroleum	1.898	505	61	-31.7	*	*	.0
Natural Gas	81,110	3,783,149	9.011.178	68.8	.2	7.4	18.4
Hydroelectric	304,390	397,989	270,126	-1.3	.8	.8	.6
Other Renewables	543,864	587,998	1,087,685	8.0	1.4	1.1	2.2
Total Electric Industry	38,440,812	51,148,484	48,966,139	2.7	100.0	100.0	100.0
Coal	3,833,470	3,374,622	4,304,848	1.3	10.0	6.6	8.8
Petroleum	7,296	33,632	44,096	22.1	*	.1	.1
Natural Gas	2,835,884	7,250,065	10,243,696	15.3	7.4	14.2	20.9
Hydroelectric	31,220,298	39,902,167	33,250,332	.7	81.2	78.0	67.9
Other Renewables	543,864	587.998	1,123,166	8.4	1.4	1.1	2.3

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Oregon				
Coal (cents per million Btu)	107.3	108.9	125.2	1.7
Average heat value (Btu per pound)	8,937	8,685	8,516	5
Average sulfur Content (percent)	.4	.3	.3	-2.8
Petroleum (cents per million Btu)	465.4	331.9	787.5	6.0
Average heat value (Btu per gallon)	139,000	140,000	138,490	*
Average sulfur Content (percent)	.5	*	.2	-9.7
Natural Gas (cents per million Btu)	183.0	154.1	437.0	10.2
Average heat value (Btu per cubic foot)	1,011	1,011	1.022	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Oregon				
Sulfur Dioxide				
Coal	15	13	12	-2.4
Petroleum	*	*	*	11.0
Natural Gas	*	*	*	13.0
Other	2	*	1	-8.0
Total	17	13	13	-2.9
Nitrogen Oxide				
Coal	16	8	9	-5.8
Petroleum	*	*	*	5.3
Gas	4	3	2	-8.6
Other	1	1	1	-1.1
Total Carbon Dioxide	21	12	12	-5.9
Coal	4.134	3,539	4.244	.3
Petroleum	23	27	42	7.2
Gas	1,669	3,281	4,409	11.4
Geothermal	_	_		NM
Other	20	20	69	15.1
Total	5,845	6.867	8.765	4.6

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Pe	ercentage Shai	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Oregon							
Retail Sales (thousand megawatthours)							
Residential	16,462	17,529	17,736	0.8	36.6	37.4	39.2
Commercial	12,660	14,324	15,483	2.3	28.1	30.5	34.3
Industrial	15,072	14,640	11,961	-2.5	33.5	31.2	26.5
Other	777	414	NA	NM	1.7	.9	NA
Transportation	NA	NA	15	NM	NA	NA	*
Total	44,971	46,907	45,195	.1	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	877	1,022	1,252	4.0	42.4	44.4	44.8
Commercial	629	722	988	5.1	30.4	31.4	35.3
Industrial	523	528	554	.6	25.3	23.0	19.8
Other	41	28	NA	NM	2.0	1.2	NA
Transportation	NA	NA	1	NM	NA	NA	*
Total	2,070	2,299	2,795	3.4	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	5.33	5.82	7.06	3.2	NA	NA	NA
Commercial	4.97	5.00	6.38	2.8	NA	NA	NA
Industrial	3.47	3.50	4.63	3.3	NA	NA	NA
Other	5.27	6.67	NA	NM	NA	NA	NA
Transportation	NA	NA	6.68	NM	NA	NA	NA
Total	4.60	4.90	6.18	3.3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers					Other I		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Oregon								
Number of Entities	3	18	1	19	NA	NA	NA	41
Number of Retail Customers	1,282,670	273,235	2	183,752	NA	NA	NA	1,739,659
Retail Sales (thousand megawatthours)	32,282	8,605	7	4,300	NA	NA	NA	45,195
Percentage of Retail Sales	71.43	19.04	.02	9.51	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	2,047	457	*	290	NA	NA	NA	2,795
Percentage of Revenue	73.25	16.36	.01	10.38	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	6.34	5.31	3.06	6.75	NA	NA	NA	6.18

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Pennsylvania		
NERC Region(s)		ECAR/MAAC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	42,368	5
Electric Utilities	4,921	34
Independent Power Producers & Combined Heat and Power	37,450	3
Net Generation (megawatthours)	206,349,513	3
Electric Utilities	30,099,444	34
Independent Power Producers & Combined Heat and Power	176,250,070	3
Emissions (thousand metric tons)		
Sulfur Dioxide	912	2
Nitrogen Oxide	177	6
Carbon Dioxide	119,184	4
Sulfur Dioxide (lbs/MWh)	9.7	8
Nitrogen Oxide (lbs/MWh)	1.9	35
Carbon Dioxide (lbs/MWh)	1,273	33
Total Retail Sales (megawatthours)	140,369,128	6
Full Service Provider Sales (megawatthours)	127,963,731	4
Deregulated Sales (megawatthours)	12,405,397	5
Direct Use (megawatthours)	4,478,416	8
Average Retail Price (cents/kWh)	8.02	13

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Pennsylvania			
1. Bruce Mansfield	Petroleum, Coal	Pennsylvania Power Co	2,360
2. Limerick	Nuclear	Exelon Generation Co LLC	2,268
3. PPL Susquehanna	Nuclear	PPL Susquehanna LLC	2,245
4. Peach Bottom	Nuclear	Exelon Generation Co LLC	2,224
5. PPL Martins Creek	Gas, Coal, Petroleum	PPL Martins Creek LLC	2,027
6. Homer City Station	Petroleum, Coal	Midwest Generations EME LLC	1,884
7. Conemaugh	Petroleum, Gas, Coal	Reliant Energy Mid-Atlantic PH	1,712
8. Keystone	Petroleum, Coal	Reliant Energy Mid-Atlantic PH	1,712
9. Beaver Valley	Nuclear	Pennsylvania Power Co	1,652
10. Hatfields Ferry Power Station	Petroleum, Coal	Allegheny Energy Supply Co LLC	1,590

Table 3. Top Five Providers of Retail Electricity, 2003 (Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Pennsylvania						
1. PECO Energy Co	Investor-Owned	33,707,980	11,358,161	6,875,226	14,761,733	712,860
PPL Electric Utilities Corp	Investor-Owned	33,635,019	13,330,312	11,392,332	8,912,375	0
3. West Penn Power Co	Investor-Owned	18,991,265	6,638,620	4,589,504	7,763,141	0
4. Pennsylvania Electric Co	Investor-Owned	12,105,298	4,126,961	4,702,138	3,276,199	0
5. Metropolitan Edison Co	Investor-Owned	11,121,666	4,884,373	3,890,871	2,346,422	0
Total Sales, Top Five Providers		109,561,228	40,338,427	31,450,071	37,059,870	712,860
Percent of Total State Sales		78	81	73	79	98

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Pennsylvania							
Electric Utilities	33,675	33,781	4,921	-19.2	93.2	92.4	11.6
Coal	17,492	17,386	2,360	-20.0	48.4	47.6	5.6
Petroleum	4,121	2,391	0	NM	11.4	6.5	.0
Natural Gas	377	1,811	0	NM	1.0	5.0	.0
Dual Fired	965	1,188	30	-32.0	2.7	3.3	.1
Nuclear	8,788	9,035	1,652	-16.9	24.3	24.7	3.9
Hydroelectric	647	621	444	-4.1	1.8	1.7	1.0
Pumped Storage	1,285	1,349	435	-11.3	3.6	3.7	1.0
Independent Power Producers and Combined							
Heat and Power	2,476	2,775	37,450	35.2	6.8	7.6	88.4
Coal	1,335	1,515	15,778	31.6	3.7	4.1	37.2
Petroleum	15	23	2,283	74.8	*	.1	5.4
Natural Gas	237	401	4,063	37.1	.7	1.1	9.6
Other Gases	257	119	110	-9.0	.7	.3	.3
Dual Fired	264	318	5,738	40.8	.7	.9	13.5
Nuclear	0	0	7,523	NM	.0	.0	17.8
Hydroelectric	85	84	307	15.3	.2	.2	.7
Other Renewables	281	295	576	8.3	.8	.8	1.4
Pumped Storage	0	0	1.072	NM	.0	.0	2.5
Other	2	20	0	NM	*	.1	.0
Total Electric Industry	36,151	36,556	42,368	1.8	100.0	100.0	100.0
Coal	18,827	18,901	18,137	4	52.1	51.7	42.8
Petroleum	4,136	2,414	2,283	-6.4	11.4	6.6	5.4
Natural Gas	614	2,212	4,062	23.4	1.7	6.1	9.6
Other Gases	257	119	110	-9.0	.7	.3	.3
Dual Fired	1,229	1,506	5,768	18.7	3.4	4.1	13.6
Nuclear	8,788	9,035	9,175	.5	24.3	24.7	21.7
Hydroelectric	732	705	751	.3	2.0	1.9	1.8
Other Renewables	281	295	575	8.3	.8	.8	1.4
Pumped Storage	1,285	1,349	1,507	1.8	3.6	3.7	3.6
Other	2	20	0	NM	*	.1	.0

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	F	Percentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
ennsylvania							
Electric Utilities	169,029,050	173,903,236	30,099,444	-17.4	91.8	91.0	14.6
Coal	93,951,561	106,516,740	15,944,113	-17.9	51.0	55.7	7.7
Petroleum	5,182,491	4,097,006	34,944	-42.6	2.8	2.1	1
Natural Gas	1,176,042	572,172	2,857	-48.8	.6	.3	3
Nuclear	67,206,815	61,149,224	12,619,098	-17.0	36.5	32.0	6.1
Hydroelectric	2,355,210	2,027,827	1,745,193	-3.3	1.3	1.1	.8
Pumped Storage	-843,069	-459,733	-246,761	NM	5	2	1
Independent Power Producers and Combined							
Heat and Power	15,049,651	17,288,282	176,250,070	31.4	8.2	9.0	85.4
Coal	7,916,029	9,870,415	100,065,761	32.6	4.3	5.2	48.5
Petroleum	641,818	409,723	4,500,393	24.2	.3	.2	2.2
Natural Gas	2,903,722	3,317,845	5,515,680	7.4	1.6	1.7	2.7
Other Gases	972,163	630,761	508,176	-7.0	.5	.3	.2
Nuclear	0	0	61,741,764	NM	.0	.0	29.9
Hydroelectric	394,575	353,525	1,601,074	16.8	.2	.2	.8
Other Renewables	2,138,621	2,665,241	2,809,456	3.1	1.2	1.4	1.4
Pumped Storage	0	0	-492,233	NM	.0	.0	2
Other	82,723	40,772	0	NM	*	*).
Total Electric Industry	184,078,701	191,191,518	206,349,513	1.3	100.0	100.0	100.0
Coal	101,867,590	116,387,155	116,009,874	1.5	55.3	60.9	56.2
Petroleum	5,824,309	4,506,729	4,535,337	-2.7	3.2	2.4	2.2
Natural Gas	4,079,764	3,890,017	5,518,537	3.4	2.2	2.0	2.
Other Gases	972,163	630,761	508,176	-7.0	.5	.3	
Nuclear	67,206,815	61,149,224	74,360,862	1.1	36.5	32.0	36.
Hydroelectric	2,749,785	2,381,352	3,346,267	2.2	1.5	1.2	1.0
Other Renewables	2,138,621	2,665,241	2,809,456	3.1	1.2	1.4	1
Pumped Storage	-843,069	-459,733	-738,994	NM	5	2	-,-
Other	82,723	40,772	0	NM	*	*	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Pennsylvania				
Coal (cents per million Btu)	143.1	135.0	122.1	-1.7
Average heat value (Btu per pound)	12,368	12,323	11,733	6
Average sulfur Content (percent)	2.1	2.2	1.9	9
Petroleum (cents per million Btu)	249.3	184.0	466.9	7.2
Average heat value (Btu per gallon)	141,247	121,552	144,660	.3
Average sulfur Content (percent)	1.1	2.1	1.3	1.8
Natural Gas (cents per million Btu)	229.1	316.5	624.7	11.8
Average heat value (Btu per cubic foot)	1,031	1,029	1,038	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
ennsylvania				
Sulfur Dioxide				
Coal	1,097	1,010	890	-2.3
Petroleum	41	46	18	-8.6
Natural Gas	*	*	*	1.9
Other	3	1	3	.4
Total	1,142	1,058	912	-2.5
Nitrogen Oxide				
Coal	326	245	163	-7.4
Petroleum	11	8	5	-9.0
Gas	5	4	2	-8.3
Other	5	5	7	5.4
Total	347	262	177	-7.2
Carbon Dioxide				
Coal	97,775	110,090	110,511	1.4
Petroleum	6,287	5,201	4,438	-3.8
Gas	2,653	2,424	3,023	1.5
Geothermal	_	_	_	NM
Other	275	343	1,212	17.9
Total	106,989	118,059	119,184	1.2

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

		1998	2003	Annual	P	ercentage Sha	re
Sector	1994			Growth Rate 1994-2003 (Percent)	1994	1998	2003
Pennsylvania							
Retail Sales (thousand megawatthours)							
Residential	42,239	42,923	49,651	1.8	34.3	33.0	35.4
Commercial	33,395	37,246	43,218	2.9	27.1	28.6	30.8
Industrial	46,076	48,815	46,773	.2	37.4	37.5	33.3
Other	1,336	1,223	NA	NM	1.1	.9	NA
Transportation	NA	NA	727	NM	NA	NA	.5
Total	123,045	130,206	140,369	1.5	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	4,035	4,235	4,760	1.8	41.7	41.6	42.3
Commercial	2,765	3,068	3,724	3.4	28.5	30.1	33.1
Industrial	2,733	2,735	2,715	1	28.2	26.8	24.1
Other	153	152	NA	NM	1.6	1.5	NA
Transportation	NA	NA	57	NM	NA	NA	.5
Total	9,686	10,190	11,256	1.7	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	9.55	9.93	9.59	*	NA	NA	NA
Commercial	8.28	8.26	8.62	.4	NA	NA	NA
Industrial	5.93	5.63	5.80	3	NA	NA	NA
Other	11.43	12.45	NA	NM	NA	NA	NA
Transportation	NA	NA	7.78	NM	NA	NA	NA
Total	7.87	7.86	8.02	.2	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other Providers				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Pennsylvania								
Number of Entities	11	35	NA	13	NA	17	9	85
Number of Retail Customers	5,161,605	83,030	NA	207,495	NA	295,723	NA	5,747,853
Retail Sales (thousand megawatthours)	124,164	1,419	NA	2,381	NA	12,405	NA	140,369
Percentage of Retail Sales	88.46	1.01	NA	1.70	NA	8.84	NA	100.00
Revenue from Retail Sales (million dollars)	9,863	115	NA	246	NA	666	366	11,256
Percentage of Revenue	87.63	1.02	NA	2.18	NA	5.92	3.25	100.00
Average Retail Price (cents/kWh)	7.94	8.10	NA	10.32	NA	5.37	2.95	8.02

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Rhode Island		
NERC Region(s)		NPCC
Primary Energy Source		Gas
Net Summer Capability (megawatts)	1,733	49
Electric Utilities	8	50
Independent Power Producers & Combined Heat and Power	1,725	34
Net Generation (megawatthours)	5,621,145	50
Electric Utilities	11,771	49
Independent Power Producers & Combined Heat and Power	5,609,374	32
Emissions (thousand metric tons)		
Sulfur Dioxide	1	49
Nitrogen Oxide	1	49
Carbon Dioxide	2,398	48
Sulfur Dioxide (lbs/MWh)	.3	49
Nitrogen Oxide (lbs/MWh)	.3	50
Carbon Dioxide (lbs/MWh)	940	40
Total Retail Sales (megawatthours)	7,796,626	49
Full Service Provider Sales (megawatthours)	7,096,649	47
Deregulated Sales (megawatthours)	699,977	15
Direct Use (megawatthours)	64,968	48
Average Retail Price (cents/kWh)	10.47	8

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Rhode Island			
Rhode Island State Energy Partners	Gas	FPL Energy Operating Serv Inc	515
2. Manchester Street	Gas	U S Gen New England Inc	421
3. Tiverton Power Plant	Gas	Calpine Eastern Corp	250
4. Ocean State Power	Gas	Ocean State Power Co	219
5. Ocean State Power II	Gas	Ocean State Power II	219
6. Pawtucket Power Associates	Gas, Petroleum	Pawtucket Power Associates LP	64
7. Ridgewood Providence Power	Other	Ridgewood Power Management LLC	15
8. Rhode Island Hospital	Gas, Petroleum	Rhode Island Hospital	10
9. Block Island	Petroleum	Block Island Power Co	7
10. Central Power Plant.	Gas, Petroleum	State of Rhode Island	5

Table 3. Top Five Providers of Retail Electricity, 2003 (Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Rhode Island						
Narragansett Electric Co	Investor-Owned	7,038,221	2,962,804	3,113,097	962,320	0
2. TransCanada Power Mktg Ltd	Power Marketer	297,907	0	0	297,907	0
3. Select Energy	Power Marketer	217,853	0	213,361	4,492	0
4. Constellation NewEnergy, Inc	Power Marketer	184,217	0	184,217	0	0
5. Pascoag Utility District	Public	50,777	28,054	5,745	16,978	0
Total Sales, Top Five Providers		7,788,975	2,990,858	3,516,420	1,281,697	0
Percent of Total State Sales		100	100	100	98	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual		Percentage Share	e
Energy Source	1994 1998 20	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Rhode Island							
Electric Utilities	147	6	8	-27.6	21.5	0.6	0.5
Petroleum	62	5	7	-21.5	9.1	.5	.4
Dual Fired	84	0	0	NM	12.3	.0	.0
Hydroelectric	1	1	1	.0	.1	.1	.1
Independent Power Producers and Combined							
Heat and Power	538	950	1,725	13.8	78.5	99.3	99.5
Petroleum	0	0	5	NM	.0	.0	.3
Natural Gas	0	1	917	NM	.0	.1	52.9
Dual Fired	522	931	785	4.6	76.2	97.3	45.3
Hydroelectric	3	3	3	.0	.4	.3	.2
Other Renewables	13	15	15	1.6	1.9	1.6	.9
Total Electric Industry	685	957	1,733	10.9	100.0	100.0	100.0
Petroleum	62	5	12	-16.7	9.1	.5	.7
Natural Gas	0	1	917	NM	.0	.1	52.9
Dual Fired	606	932	785	2.9	88.5	97.4	45.3
Hydroelectric	4	4	4	.0	.6	.4	.2
Other Renewables	13	15	15	1.6	1.9	1.6	.9

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Rhode Island								
Electric Utilities	68,641	2,061,351	11,771	-17.8	1.4	26.9	0.2	
Petroleum	33,836	8,827	11,771	-11.1	.7	.1	.2	
Natural Gas	34,805	2,052,524	0	NM	.7	26.7	.0	
Independent Power Producers and Combined								
Heat and Power	4,664,279	5,613,160	5,609,373	2.1	98.5	73.1	99.8	
Petroleum	51,511	69,479	46,588	-1.1	1.1	.9	.8	
Natural Gas	4,525,874	5,423,850	5,454,996	2.1	95.6	70.7	97.0	
Other Gases	1,862	0	0	NM	*	.0	.0	
Hydroelectric	9,349	8,676	6,021	-4.8	.2	.1	.1	
Other Renewables	75,683	111,155	101,768	3.3	1.6	1.4	1.8	
Total Electric Industry	4,732,920	7,674,511	5,621,145	1.9	100.0	100.0	100.0	
Petroleum	85,347	78,306	58,359	-4.1	1.8	1.0	1.0	
Natural Gas	4,560,679	7,476,374	5,454,996	2.0	96.4	97.4	97.0	
Other Gases	1,862	0	0	NM	*	.0	.0	
Hydroelectric	9,349	8,676	6,021	-4.8	.2	.1	.1	
Other Renewables	75,683	111,155	101,768	3.3	1.6	1.4	1.8	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Rhode Island				
Petroleum (cents per million Btu)	253.5	0.0	w	W
Average heat value (Btu per gallon)	151,317	0	140,565	-0.8
Average sulfur Content (percent)	1.0	.0	.1	-19.4
Natural Gas (cents per million Btu)	222.5	328.5	650.3	12.7
Average heat value (Btu per cubic foot)	1,029	1,028	1,033	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Rhode Island				
Sulfur Dioxide				
Coal	_		_	NM
Petroleum	1	2	1	-1.2
Natural Gas	*	*	*	5.4
Other	_	_	_	NM
Total	1	2	1	-1.0
Nitrogen Oxide				
Coal	_	_	_	NM
Petroleum	*	1	*	-2.6
Gas	2	4	*	-13.9
Other	*	1	*	-16.4
Total	2	5	1	-11.9
Carbon Dioxide				
Coal	_	_	_	NM
Petroleum	187	349	128	-4.1
Gas	2,128	3,258	2,270	.7
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	2,315	3,606	2,398	.4

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Rhode Island							
Retail Sales (thousand megawatthours)							
Residential	2,457	2,522	2,998	2.2	37.4	36.6	38.4
Commercial	2,563	2,731	3,490	3.5	39.0	39.6	44.8
Industrial	1,378	1,458	1,309	6	21.0	21.2	16.8
Other	174	177	NA	NM	2.6	2.6	NA
Total	6,572	6,888	7,797	1.9	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	277	275	348	2.6	41.2	41.7	42.6
Commercial	255	253	352	3.6	37.9	38.4	43.1
Industrial	122	110	116	6	18.1	16.7	14.2
Other	20	20	NA	NM	3.0	3.0	NA
Total	673	659	816	2.2	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	11.26	10.91	11.61	.3	NA	NA	NA
Commercial	9.95	9.26	10.09	.2	NA	NA	NA
Industrial	8.86	7.61	8.88	*	NA	NA	NA
Other	11.23	11.51	NA	NM	NA	NA	NA
Total	10.24	9.58	10.47	.3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	Other P				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Rhode Island								
Number of Entities	2	1	NA	NA	NA	3	2	8
Number of Retail Customers	466,805	4,525	NA	NA	NA	4,986	NA	476,316
Retail Sales (thousand megawatthours)	7,046	51	NA	NA	NA	700	NA	7,797
Percentage of Retail Sales	90.37	.65	NA	NA	NA	8.98	NA	100.00
Revenue from Retail Sales (million dollars)	750	5	NA	NA	NA	34	27	816
Percentage of Revenue	91.88	.59	NA	NA	NA	4.16	3.36	100.00
Average Retail Price (cents/kWh)	10.65	9.51	NA	NA	NA	4.86	3.92	10.47

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
outh Carolina		
NERC Region(s)		SERC
Primary Energy Source		Nuclear
Net Summer Capability (megawatts)	20,658	18
Electric Utilities	19,402	11
Independent Power Producers & Combined Heat and Power	1,257	38
Net Generation (megawatthours)	93,772,677	17
Electric Utilities	91,544,429	8
Independent Power Producers & Combined Heat and Power	2,228,249	41
Emissions (thousand metric tons)		
Sulfur Dioxide	207	19
Nitrogen Oxide	78	25
Carbon Dioxide	36,658	27
Sulfur Dioxide (lbs/MWh)	4.9	21
Nitrogen Oxide (lbs/MWh)	1.8	37
Carbon Dioxide (lbs/MWh)	862	43
Total Retail Sales (megawatthours)	77,054,098	18
Full Service Provider Sales (megawatthours)	77,054,098	17
Direct Use (megawatthours)	2,041,837	22
Average Retail Price (cents/kWh)	6.08	37

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
South Carolina			
1. Oconee	Nuclear	Duke Energy Corp	2,538
2. Catawba	Nuclear	Duke Energy Corp	2,258
3. Cross	Petroleum, Coal	South Carolina Pub Serv Auth	1,160
4. Winyah	Petroleum, Coal	South Carolina Pub Serv Auth	1,155
5. Bad Creek	Hydro	Duke Energy Corp	1,065
6. V C Summer	Nuclear	South Carolina Electric&Gas Co	966
7. H B Robinson	Petroleum, Coal, Nuclear	Carolina Power & Light Co	899
8. Darlington County	Gas, Petroleum	Carolina Power & Light Co	812
9. Broad River Energy Center	Petroleum, Gas	Broad River Energy LLC	797
10. John S Rainey	Petroleum, Gas	South Carolina Pub Serv Auth	744

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

	Ownership					
Entity	Туре	All Sectors	Residential	Commercial	Industrial	Transportation
South Carolina						
1. Duke Energy Corp	Investor-Owned	20,738,323	5,693,569	5,172,087	9,872,667	0
2. South Carolina Electric&Gas Co	Investor-Owned	20,668,054	6,998,139	7,122,007	6,547,908	0
3. South Carolina Pub Serv Auth	Public	11,242,792	1,464,246	1,799,970	7,978,576	0
4. Carolina Power & Light Co	Investor-Owned	7,069,657	2,061,811	1,784,958	3,222,888	0
5. Berkeley Electric Coop Inc	Cooperative	1,412,332	1,068,796	166,685	176,851	0
Total Sales, Top Five Providers		61,131,158	17,286,561	16,045,707	27,798,890	0
Percent of Total State Sales		79	65	83	89	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	Percentage Share			
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
outh Carolina								
Electric Utilities	16,691	17,627	19,402	1.7	97.4	97.3	93.9	
Coal	5,352	6,007	5,925	1.1	31.2	33.2	28.7	
Petroleum	287	671	684	10.1	1.7	3.7	3.3	
Natural Gas	18	18	760	51.6	.1	.1	3.7	
Other Gases	364	0	0	NM	2.1	.0).	
Dual Fired.	858	1,050	1,963	9.6	5.0	5.8	9.5	
Nuclear	6,364	6,431	6,472	.2	37.1	35.5	31.3	
Hydroelectric	1,261	1,263	1,360	.8	7.4	7.0	6.0	
Other Renewables	0	0	3	NM	.0	.0	*	
Pumped Storage	2,187	2,187	2,235	.2	12.8	12.1	10.8	
Independent Power Producers and Combined								
Heat and Power	452	490	1,257	12.0	2.6	2.7	6.1	
Coal	189	131	103	-6.5	1.1	.7	.5	
Petroleum	1	3	3	13.0	*	*	3	
Natural Gas	1	102	95	65.9	*	.6	.5	
Dual Fired	3	3	800	86.0	*	*	3.9	
Hydroelectric	18	18	24	3.2	.1	.1	.1	
Other Renewables	240	233	232	4	1.4	1.3	1.1	
Total Electric Industry	17,144	18,117	20,658	2.1	100.0	100.0	100.0	
Coal	5,541	6,138	6,028	.9	32.3	33.9	29.2	
Petroleum	288	674	686	10.1	1.7	3.7	3.3	
Natural Gas.	19	121	855	52.6	.1	.7	4.	
Other Gases	364	0	0	NM	2.1	.0		
Dual Fired.	862	1.053	2,763	13.8	5.0	5.8	13.4	
Nuclear	6.364	6.431	6,472	.2	37.1	35.5	31.3	
	1.279	1,281	1,384	.9	7.5	7.1	6.3	
nvaroelectric			1,501	.,	,		0.	
Hydroelectric Other Renewables	240	232	235	2	1.4	1.3	1.	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share		
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
outh Carolina							
Electric Utilities	74,193,685	84,396,897	91,544,429	2.4	96.4	96.7	97.6
Coal	26,993,543	32,377,814	37,065,509	3.6	35.1	37.1	39.5
Petroleum	108.250	331,357	289,474	11.5	.1	.4	.3
Natural Gas	278,698	414,900	1,365,534	19.3	.4	.5	1.5
Nuclear	44,466,176	48,759,447	50,417,690	1.4	57.8	55.9	53.8
Hydroelectric	2,967,874	3,503,249	3,590,944	2.1	3.9	4.0	3.8
Other Renewables	0	0	22,091	NM	.0	.0	*
Pumped Storage	-620,856	-989,870	-1,206,813	NM	8	-1.1	-1.3
Independent Power Producers and Combined							
Heat and Power	2,748,837	2,849,664	2,228,249	-2.3	3.6	3.3	2.4
Coal	747,572	591,885	366,514	-7.6	1.0	.7	.4
Petroleum	132,494	120,306	167,397	2.6	.2	.1	.2
Natural Gas	85,002	462,565	297,248	14.9	.1	.5	.3
Other Gases	17,368	92	73	-45.6	*	.0	.0
Hydroelectric	67,078	66,168	74,482	1.2	.1	.1	.1
Other Renewables	1,694,529	1,604,202	1,322,535	-2.7	2.2	1.8	1.4
Other	4,794	4,446	0	NM	*	*	.0
Total Electric Industry	76,942,522	87,246,561	93,772,677	2.2	100.0	100.0	100.0
Coal	27,741,115	32,969,699	37,432,023	3.4	36.1	37.8	39.9
Petroleum	240,744	451,663	456,871	7.4	.3	.5	.5
Natural Gas	363,700	877,465	1,662,782	18.4	.5	1.0	1.8
Other Gases	17,368	92	73	-45.6	*	.0).
Nuclear	44,466,176	48,759,447	50,417,690	1.4	57.8	55.9	53.8
Hydroelectric	3,034,952	3,569,417	3,665,426	2.1	3.9	4.1	3.9
Other Renewables	1,694,529	1,604,202	1,344,626	-2.5	2.2	1.8	1.4
Pumped Storage	-620,856	-989,870	-1,206,813	NM	8	-1.1	-1.3
Other	4,794	4.446	0	NM	*	*	.(

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
South Carolina				
Coal (cents per million Btu)	156.0	144.7	W	W
Average heat value (Btu per pound)	12,771	12,805	12,669	-0.1
Average sulfur Content (percent)	1.2	1.2	1.1	-1.1
Petroleum (cents per million Btu)	409.7	327.6	W	W
Average heat value (Btu per gallon)	138,152	138,122	144,989	.5
Average sulfur Content (percent)	.2	.2	1.7	25.1
Natural Gas (cents per million Btu)	167.1	353.4	W	W
Average heat value (Btu per cubic foot)	1,023	1,024	1,031	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994 1998		2003	Annual Growth Rate 1994-2003 (Percent)
South Carolina				
Sulfur Dioxide				
Coal	187	189	197	0.6
Petroleum	*	2	3	25.6
Natural Gas	_	*	_	NM
Other	11	6	8	-3.7
Total	198	197	207	.5
Nitrogen Oxide				
Coal	103	95	74	-3.6
Petroleum	1	1	*	-4.3
Gas	1	1	1	.4
Other	3	3	2	-2.8
Total	107	99	78	-3.5
Carbon Dioxide				
Coal	26,807	31,423	35,074	3.0
Petroleum	550	801	652	1.9
Gas	226	654	754	14.3
Geothermal	_	_	_	NM
Other	26	28	179	23.8
Total	27,609	32,906	36.658	3.2

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
South Carolina							
Retail Sales (thousand megawatthours)							
Residential	19,903	23,558	26,422	3.2	32.2	32.5	34.3
Commercial	13,393	16,370	19,336	4.2	21.6	22.6	25.1
Industrial	27,760	31,606	31,296	1.3	44.9	43.6	40.6
Other	802	920	NA	NM	1.3	1.3	NA
Total	61,858	72,454	77,054	2.5	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,492	1,767	2,117	4.0	42.5	44.1	45.2
Commercial	853	1,021	1,316	4.9	24.3	25.5	28.1
Industrial	1,118	1,165	1,251	1.3	31.9	29.1	26.7
Other	47	55	NA	NM	1.3	1.4	NA
Total	3,509	4,008	4,684	3.3	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.49	7.50	8.01	.8	NA	NA	NA
Commercial	6.37	6.24	6.81	.7	NA	NA	NA
Industrial	4.03	3.69	4.00	1	NA	NA	NA
Other	5.84	5.99	NA	NM	NA	NA	NA
Total	5.67	5.53	6.08	.8	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers Other Pro						Providers	
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
South Carolina								
Number of Entities	4	22	NA	21	NA	NA	NA	47
Number of Retail Customers	1,235,618	296,305	NA	645,551	NA	NA	NA	2,177,474
Retail Sales (thousand megawatthours)	48,675	15,043	NA	13,335	NA	NA	NA	77,054
Percentage of Retail Sales	63.17	19.52	NA	17.31	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	2,921	769	NA	994	NA	NA	NA	4,684
Percentage of Revenue	62.35	16.42	NA	21.23	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	6.00	5.11	NA	7.46	NA	NA	NA	6.08

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

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Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
South Dakota		
NERC Region(s)		WECC/MAPP
Primary Energy Source		Hydro
Net Summer Capability (megawatts)	2,690	46
Electric Utilities	2,650	37
Independent Power Producers & Combined Heat and Power	41	50
Net Generation (megawatthours)	7,943,837	46
Electric Utilities	7,904,755	37
Independent Power Producers & Combined Heat and Power	39,082	51
Emissions (thousand metric tons)		
Sulfur Dioxide	12	45
Nitrogen Oxide	15	40
Carbon Dioxide	3,649	47
Sulfur Dioxide (lbs/MWh)	3.3	36
Nitrogen Oxide (lbs/MWh)	4.2	7
Carbon Dioxide (lbs/MWh)	1,013	39
Total Retail Sales (megawatthours)	9,079,990	48
Full Service Provider Sales (megawatthours)	9,079,990	46
Average Retail Price (cents/kWh)	6.35	29

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
South Dakota			
1. Oahe	Hydro	USCE-Missouri River District	674
2. Big Bend	Hydro	USCE-Missouri River District	520
3. Big Stone	Petroleum, Coal	Otter Tail Power Co	455
4. Fort Randall	Hydro	USCE-Missouri River District	355
5. Angus Anson	Petroleum, Gas	Northern States Power Co	215
6. Ben French	Petroleum, Gas, Coal	Black Hills Corp	100
7. Spirit Mound	Petroleum	Basin Electric Power Coop	96
8. Huron	Gas	Northwestern Public Service Co	55
9. Watertown Power Plant	Petroleum	Missouri Basin Mun Pwr Agency	51
10. Lake Preston	Petroleum	Otter Tail Power Co	41

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
South Dakota						
Northern States Power Co	Investor-Owned	1,657,423	549,483	792,481	315,459	0
2. Black Hills Corp	Investor-Owned	1,378,786	445,423	647,790	285,573	0
3. Northwestern Public Service Co	Investor-Owned	1,192,772	453,143	551,508	188,121	0
4. Sioux Valley SW Elec Coop	Cooperative	348,809	209,846	83,239	55,724	0
5. Otter Tail Power Co	Investor-Owned	316,782	104,825	211,957	0	0
Total Sales, Top Five Providers		4,894,572	1,762,720	2,286,975	844,877	0
Percent of Total State Sales		54	47	62	52	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	Percentage Share	:
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
outh Dakota							
Electric Utilities	2,965	2,922	2,650	-1.2	100.0	100.0	98.5
Coal	488	477	476	3	16.5	16.3	17.7
Petroleum	223	208	237	.7	7.5	7.1	8.8
Natural Gas	296	293	34	-21.4	10.0	10.0	1.3
Dual Fired	138	138	351	10.9	4.7	4.7	13.0
Hydroelectric	1,820	1,806	1,549	-1.8	61.4	61.8	57.6
Other Renewables	0	0	3	NM	.0	.0	.1
Independent Power Producers and Combined							
Heat and Power	0	0	41	NM	.0	.0	1.5
Other Renewables	0	0	41	NM	.0	.0	1.5
Total Electric Industry	2,965	2,922	2,690	-1.1	100.0	100.0	100.0
Coal	488	477	476	3	16.5	16.3	17.7
Petroleum	223	208	237	.7	7.5	7.1	8.8
Natural Gas	296	293	34	-21.4	10.0	10.0	1.3
Dual Fired	138	138	351	10.9	4.7	4.7	13.0
Hydroelectric	1,820	1,806	1,549	-1.8	61.4	61.8	57.6
Other Renewables	0	0	43	NM	.0	.0	1.6

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	F	Percentage Share	;
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
South Dakota							
Electric Utilities	7,991,260	9,088,990	7,904,755	-0.1	100.0	100.0	99.5
Coal	2,833,332	3,094,113	3,431,203	2.1	35.5	34.0	43.2
Petroleum	20,731	26,551	16,058		.3	.3	.2
Natural Gas	8,437	210,726	176,024	40.2	.1	2.3	2.2
Hydroelectric	5,128,760	5,757,600	4,276,303	-2.0	64.2	63.3	53.8
Other Renewables	0	0	5,167	NM	.0	.0	.1
Independent Power Producers and Combined			20.002				_
Heat and Power	0	0	39,082	NM	.0	.0	.5
Other Renewables	0	0	39,082	NM	.0	.0	.5
Total Electric Industry	7,991,260	9,088,990	7,943,837	1	100.0	100.0	100.0
Coal	2,833,332	3,094,113	3,431,203	2.1	35.5	34.0	43.2
Petroleum	20,731	26,551	16,058	-2.8	.3	.3	.2
Natural Gas	8,437	210,726	176,024	40.2	.1	2.3	2.2
Hydroelectric	5,128,760	5,757,600	4,276,303	-2.0	64.2	63.3	53.8
Other Renewables	0	0	44,249	NM	.0	.0	.6

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
South Dakota				
Coal (cents per million Btu)	108.3	92.7	134.3	2.4
Average heat value (Btu per pound)	6,049	8,728	8,560	3.9
Average sulfur Content (percent)	.9	.7	.3	-10.7
Petroleum (cents per million Btu)	.0	.0	803.6	NM
Average heat value (Btu per gallon)	0	0	138,211	NM
Average sulfur Content (percent)	.0	.0	.2	NM
Natural Gas (cents per million Btu)	272.3	176.7	.0	NM
Average heat value (Btu per cubic foot)	972	1,000	0	NM

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
South Dakota				
Sulfur Dioxide				
Coal	30	19	11	-10.3
Petroleum	*	*	*	16.7
Natural Gas	_	_	_	NM
Other	*	*	*	46.1
Total	30	19	12	-9.9
Nitrogen Oxide				
Coal	10	22	15	4.8
Petroleum	_	*	*	NM
Gas	*	*	*	17.3
Other	*	*	*	33.0
Total	10	22	15	5.0
Carbon Dioxide				
Coal	3,253	3,196	3,516	.9
Petroleum	21	28	18	-1.5
Gas	8	154	115	33.6
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	3,282	3,378	3,649	1.2

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Shar	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
South Dakota							
Retail Sales (thousand megawatthours)							
Residential	3,147	3,303	3,740	1.9	43.9	42.2	41.2
Commercial	1,919	2,263	3,713	7.6	26.8	28.9	40.9
Industrial	1,762	1,868	1,627	9	24.6	23.9	17.9
Other	346	390	NA	NM	4.8	5.0	NA
Total	7,174	7,824	9,080	2.6	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	222	240	280	2.6	50.0	49.1	48.5
Commercial	127	150	224	6.5	28.6	30.7	38.8
Industrial	79	83	73	9	17.8	17.0	12.6
Other	16	17	NA	NM	3.6	3.5	NA
Total	444	489	577	2.9	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.06	7.27	7.47	.6	NA	NA	NA
Commercial	6.60	6.62	6.04	-1.0	NA	NA	NA
Industrial	4.51	4.44	4.51	.0	NA	NA	NA
Other	4.62	4.28	NA	NM	NA	NA	NA
Total	6.19	6.26	6.35	.3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers					Other I		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
South Dakota								
Number of Entities	6	35	1	30	NA	NA	NA	72
Number of Retail Customers	212,384	55,453	18	132,379	NA	NA	NA	400,234
Retail Sales (thousand megawatthours)	4,814	1,311	302	2,652	NA	NA	NA	9,080
Percentage of Retail Sales	53.02	14.44	3.33	29.21	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	323	67	4	183	NA	NA	NA	577
Percentage of Revenue	55.98	11.59	.75	31.68	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	6.71	5.10	1.43	6.89	NA	NA	NA	6.35

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

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Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
Tennessee			
NERC Region(s)		ECAR/SERC	
Primary Energy Source		Coal	
Net Summer Capability (megawatts)	20,893	17	
Electric Utilities	19,234	12	
Independent Power Producers & Combined Heat and Power	1,659	35	
Net Generation (megawatthours)	92,221,791	18	
Electric Utilities	88,678,127	9	
Independent Power Producers & Combined Heat and Power	3,543,664	38	
Emissions (thousand metric tons)			
Sulfur Dioxide	344	13	
Nitrogen Oxide	129	13	
Carbon Dioxide	55,820	17	
Sulfur Dioxide (lbs/MWh)	8.2	12	
Nitrogen Oxide (lbs/MWh)	3.1	21	
Carbon Dioxide (lbs/MWh)	1,334	29	
Total Retail Sales (megawatthours)	97,455,808	13	
Full Service Provider Sales (megawatthours)	97,455,808	13	
Direct Use (megawatthours)	3,389,262	13	
Average Retail Price (cents/kWh)	5.84	42	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Tennessee			·
1. Cumberland	Petroleum, Coal	Tennessee Valley Authority	2,465
2. Johnsonville	Petroleum, Gas, Coal	Tennessee Valley Authority	2,330
3. Sequoyah	Nuclear	Tennessee Valley Authority	2,277
4. Raccoon Mountain	Hydro	Tennessee Valley Authority	1,652
5. Gallatin	Petroleum, Gas, Coal	Tennessee Valley Authority	1,572
6. Kingston	Petroleum, Coal	Tennessee Valley Authority	1,428
7. Allen Steam Plant	Petroleum, Coal	Tennessee Valley Authority	1,197
8. Watts Bar Nuclear Plant	Nuclear	Tennessee Valley Authority	1,121
9. Lagoon Creek	Petroleum, Gas	Tennessee Valley Authority	952
10. Bull Run	Petroleum, Coal	Tennessee Valley Authority	865

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Tennessee						
1. Memphis City of	Public	13,613,642	5,155,614	4,664,215	3,793,813	0
Nashville Electric Service	Public	11,949,165	4,393,945	4,419,359	3,135,861	0
3. Tennessee Valley Authority	Federal	8,169,012	0	0	8,169,012	0
4. Chattanooga City of	Public	5,567,368	1,969,556	1,842,175	1,755,637	0
5. Knoxville Utilities Board	Public	5,547,302	2,350,687	1,794,683	1,401,932	0
Total Sales, Top Five Providers		44,846,489	13,869,802	12,720,432	18,256,255	0
Percent of Total State Sales		46	37	46	57	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

Energy Source				Annual	Percentage Share			
	1994	1994 1998 2003		Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Tennessee								
Electric Utilities	16,482	17,546	19,234	1.7	96.3	96.5	92.1	
Coal	8,615	8,604	8,609	*	50.3	47.3	41.2	
Petroleum	0	0	56	NM	.0	.0	.3	
Dual Fired	1.982	1.823	3.128	5.2	11.6	10.0	15.0	
Nuclear	2,217	3,357	3,398	4.9	13.0	18.5	16.3	
Hydroelectric	2,136	2,230	2,389	1.3	12.5	12.3	11.4	
Other Renewables	0	0	2	NM	.0	.0	*	
Pumped Storage	1,532	1,532	1,652	.8	9.0	8.4	7.9	
Heat and Power Coal	630 324 28 0 170 70 38	629 362 36 4 170 19 38	1,659 276 1,034 72 165 112	11.4 -1.8 49.3 NM -3 5.4 NM	3.7 1.9 .2 .0 1.0 .4 .2	3.5 2.0 .2 * .9 .1	7.9 1.3 4.9 .3 .8 .5	
Total Electric Industry	17,112	18,175	20,893	2.2	100.0	100.0	100.0	
Coal	8,939	8,966	8,885	1	52.2	49.3	42.5	
Petroleum	0	0	56	NM	.0	.0	.3	
Natural Gas	28	36	1,034	49.3	.2	.2	4.9	
Dual Fired	1.982	1.827	3,200	5.5	11.6	10.1	15.3	
Nuclear	2,217	3,357	3,398	4.9	13.0	18.5	16.3	
Hydroelectric	2,306	2,400	2,554	1.1	13.5	13.2	12.2	
Other Renewables	70	19	114	5.6	.4	.1	.5	
Pumped Storage	1,532	1,532	1,652	.8	9.0	8.4	7.9	
Other	38	38	0	NM	.2	.2	.0	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
ennessee							
Electric Utilities	74,853,548	94,142,638	88,678,127	1.9	95.6	96.3	96.2
Coal	52,132,070	55,120,297	53,376,149	.3	66.5	56.4	57.9
Petroleum	295,961	699,233	379,007	2.8	.4	.7	.4
Natural Gas	94,605	550,543	408,059	17.6	.1	.6	.4
Nuclear	11,932,352	28,387,543	24,152,580	8.1	15.2	29.0	26.2
Hydroelectric	10,991,541	10,007,358	11,087,048	.1	14.0	10.2	12.0
Other Renewables	0	0	3,933	NM	.0	.0	*
Pumped Storage	-592,981	-622,336	-728,649	NM	8	6	8
Independent Power Producers and Combined							
Heat and Power	3,481,409	3,585,819	3,543,663	.2	4.4	3.7	3.8
Coal	1,576,478	1,712,642	1,545,148	2	2.0	1.8	1.7
Petroleum	16,167	6,941	26,803	5.8	*	*	*
Natural Gas	209,673	307,320	218,927	.5	.3	.3	.2
Other Gases	3,030	15,845	2,834	7	*	*	*
Hydroelectric	1,036,418	798,670	916,598	-1.4	1.3	.8	1.0
Other Renewables	527,967	647,545	828,187	5.1	.7	.7	.9
Other	111,676	96,856	5,166	-28.9	.1	.1	*
Total Electric Industry	78,334,957	97,728,457	92,221,791	1.8	100.0	100.0	100.0
Coal	53,708,548	56,832,939	54,921,297	.2	68.6	58.2	59.6
Petroleum	312,128	706,174	405,810	3.0	.4	.7	.4
Natural Gas	304,278	857,863	626,986	8.4	.4	.9	.7
Other Gases	3,030	15,845	2,834	7	*	*	*
Nuclear	11,932,352	28,387,543	24,152,580	8.1	15.2	29.0	26.2
Hydroelectric	12,027,959	10,806,028	12,003,646	*	15.4	11.1	13.0
Other Renewables	527,967	647,545	832,120	5.2	.7	.7	.9
Pumped Storage	-592,981	-622,336	-728,649	NM	8	6	8
Other	111.676	96,856	5.166	-28.9	.1	.1	*

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Tennessee				
Coal (cents per million Btu)	125.6	112.5	W	W
Average heat value (Btu per pound)	12,186	11,733	11,465	-0.7
Average sulfur Content (percent)	2.0	1.7	1.2	-5.6
Petroleum (cents per million Btu)	414.9	304.5	619.3	4.5
Average heat value (Btu per gallon)	138,244	139,886	139,903	.1
Average sulfur Content (percent)	.5	.5	.5	.0
Natural Gas (cents per million Btu)	.0	.0	619.7	NM
Average heat value (Btu per cubic foot)	0	0	1.025	NM

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Cennessee				
Sulfur Dioxide				
Coal	770	435	336	-8.8
Petroleum	*	*	1	10.2
Natural Gas	_	_	_	NM
Other	5	3	7	5.0
Total	775	439	344	-8.6
Nitrogen Oxide				
Coal	228	224	127	-6.3
Petroleum	*	*	*	7.3
Gas	1	2	1	2.9
Other	2	2	1	-12.0
Total	231	227	129	-6.2
Carbon Dioxide				
Coal	53,915	57,842	54,782	.2
Petroleum	283	631	459	5.5
Gas	407	865	571	3.8
Geothermal	_	_	_	NM
Other	36	33	8	-15.5
Total	54,641	59,372	55,820	.2

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994 1998 2003 199		Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Tennessee							
Retail Sales (thousand megawatthours)							
Residential	32,797	35,428	37,697	1.6	39.7	38.6	38.7
Commercial	5,154	24,840	27,481	20.4	6.2	27.1	28.2
Industrial	43,614	30,461	32,278	-3.3	52.8	33.2	33.1
Other	968	1,021	NA	NM	1.2	1.1	NA
Total	82,533	91,750	97,456	1.9	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,928	2,238	2,467	2.8	44.7	43.4	43.4
Commercial	342	1,560	1,836	20.5	7.9	30.3	32.3
Industrial	1,970	1,269	1,384	-3.8	45.7	24.6	24.3
Other	75	89	NA	NM	1.7	1.7	NA
Total	4,314	5,155	5,687	3.1	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	5.88	6.32	6.55	1.2	NA	NA	NA
Commercial	6.63	6.28	6.68	.1	NA	NA	NA
Industrial	4.52	4.17	4.29	6	NA	NA	NA
Other	7.74	8.71	NA	NM	NA	NA	NA
Total	5.23	5.62	5.84	1.2	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers					Other 1		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Tennessee								
Number of Entities	3	62	1	25	3	NA	NA	94
Number of Retail Customers	45,628	2,029,100	40	848,844	3	NA	NA	2,923,615
Retail Sales (thousand megawatthours)	2,029	66,596	8,169	19,591	1,072	NA	NA	97,456
Percentage of Retail Sales	2.08	68.33	8.38	20.10	1.10	NA	NA	100.00
Revenue from Retail Sales (million dollars)	85	4,059	252	1,282	8	NA	NA	5,687
Percentage of Revenue	1.49	71.38	4.43	22.54	.15	NA	NA	100.00
Average Retail Price (cents/kWh)	4.19	6.10	3.09	6.54	.79	NA	NA	5.84

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

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^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Гехаѕ		
NERC Region(s)		ERCOT/SPP/WSCC/SERC
Primary Energy Source		Gas
Net Summer Capability (megawatts)	99,593	1
Electric Utilities	22,629	9
Independent Power Producers & Combined Heat and Power	76,964	1
Net Generation (megawatthours)	379,199,685	1
Electric Utilities	86,882,044	10
Independent Power Producers & Combined Heat and Power	292,317,641	1
Emissions (thousand metric tons)		
Sulfur Dioxide	614	4
Nitrogen Oxide	252	3
Carbon Dioxide	254,955	1
Sulfur Dioxide (lbs/MWh)	3.6	33
Nitrogen Oxide (lbs/MWh)	1.5	40
Carbon Dioxide (lbs/MWh)	1,482	22
Total Retail Sales (megawatthours)	322,685,955	1
Full Service Provider Sales (megawatthours)	322,685,955	1
Direct Use (megawatthours)	41,705,982	1
Average Retail Price (cents/kWh)	7.50	15

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Texas			
1. W A Parish	Gas, Coal	CenterPoint Energy Houston Electric, LLC	3,653
2. South Texas Project	Nuclear	STP Nuclear Operating Co	2,560
3. Cedar Bayou	Petroleum, Gas	CenterPoint Energy Houston Electric, LLC	2,258
4. Martin Lake	Petroleum, Coal	TXU Generation Co LP	2,250
5. P H Robinson	Gas	CenterPoint Energy Houston Electric, LLC	2,211
6. Comanche Peak	Nuclear	TXU Generation Co LP	2,208
7. Monticello	Petroleum, Coal	TXU Generation Co LP	1,875
8. Sabine	Petroleum, Gas	Entergy Gulf States Inc	1,809
9. Fayette Power Project	Petroleum, Coal	Lower Colorado River Authority	1,605
10. Limestone	Gas, Petroleum, Coal	CenterPoint Energy Houston Electric, LLC	1,602

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Texas						
TXU Energy Retail Co LP	Power Marketer	79,049,806	35,535,009	14,801,355	28,623,442	90,000
2. Reliant Energy Retail Services	Power Marketer	34,693,959	22,790,440	11,903,519	0	0
3. Reliant Energy Solutions	Power Marketer	21,461,346	0	0	21,461,346	0
4. San Antonio Public Service Bd	Public	17,066,094	7,388,063	6,963,901	2,714,130	0
5. Entergy Gulf States Inc	Investor-Owned	15,365,946	5,120,432	3,973,790	6,271,724	0
Total Sales, Top Five Providers		167,637,151	70,833,944	37,642,565	59,070,642	90,000
Percent of Total State Sales		52	58	39	57	100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	ercentage Share	
Energy Source	1994 1998 2003	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
exas							
Electric Utilities	64,087	65,208	22,629	-10.9	88.7	87.4	22.
Coal.	19,345	19,731	8,189	-9.1	26.8	26.5	8.3
Petroleum	29	36	4	-19.8	*	*	
Natural Gas	8,963	8,976	5,288	-5.7	12.4	12.0	5.
Dual Fired	30,315	30,957	8,442	-13.2	42.0	41.5	8.
Nuclear	4,782	4,800	0	NM	6.6	6.4	
Hydroelectric	653	694	692	.6	.9	.9	
Other Renewables	0	1	1	NM	.0	*	
Other	0	13	13	NM	.0	*	
Independent Power Producers and Combined							
Heat and Power	8,157	9,362	76,964	28.3	11.3	12.6	77.
Coal	338	338	11,864	48.5	.5	.5	11.
Petroleum	66	76	477	24.6	.1	.1	,
Natural Gas	6,429	7,519	36,327	21.2	8.9	10.1	36.
Other Gases	163	192	289	6.6	.2	.3	
Dual Fired	886	981	21,711	42.7	1.2	1.3	21.
Nuclear	0	0	4,768	NM	.0	.0	4.
Hydroelectric	0	2	7	NM	.0	*	
Other Renewables	205	184	1,432	24.1	.3	.2	1.
Other	70	70	89	2.7	.1	.1	
Total Electric Industry	72,242	74,570	99,593	3.6	100.0	100.0	100.
Coal	19,683	20,069	20,053	.2	27.2	26.9	20.
Petroleum	94	112	481	19.9	.1	.1	
Natural Gas	15,391	16,495	41,615	11.7	21.3	22.1	41.
Other Gases	163	192	289	6.6	.2	.3	
Dual Fired	31,201	31,939	30,152	4	43.2	42.8	30.
Nuclear	4,782	4,800	4,768	*	6.6	6.4	4.
Hydroelectric	653	695	699	.8	.9	.9	
Other Renewables	205	185	1,434	24.1	.3	.2	1.
Other	70	83	102	4.3	.1	.1	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994 1998 200	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
exas								
Electric Utilities	255,140,538	293,068,377	86,882,044	-11.3	83.1	82.5	22.9	
Coal	122,667,859	132,626,804	60,288,940	-7.6	39.9	37.3	15.9	
Petroleum	309,537	136,818	257,818	-2.0	.1	*	.1	
Natural Gas	101,583,910	120,200,589	25,473,500	-14.2	33.1	33.8	6.7	
Nuclear	28,745,474	38,685,129	0	NM	9.4	10.9	.0	
Hydroelectric	1,530,436	1,418,903	858,933	-6.2	.5	.4	.2	
Other Renewables	303,322	134	2,852	-40.5	.1	.0	*	
Independent Power Producers and Combined								
Heat and Power	52,038,986	62,251,787	292,317,641	21.1	16.9	17.5	77.1	
Coal	2,477,798	2,799,221	86,700,570	48.4	.8	.8	22.9	
Petroleum	1,650,354	1,443,274	2,257,437	3.5	.5	.4	.0	
Natural Gas	42,856,658	51,943,335	159,437,850	15.7	14.0	14.6	42.0	
Other Gases	3,539,454	4,077,715	5,999,489	6.0	1.2	1.1	1.	
Nuclear	0	0	33,437,484	NM	.0	.0	8.3	
Hydroelectric	0	5,918	37,606	NM	.0	*		
Other Renewables	1,275,462	1,428,990	3,962,885	13.4	.4	.4	1.	
Other	239,260	553,334	484,320	8.2	.1	.2		
Total Electric Industry	307,179,524	355,320,164	379,199,685	2.4	100.0	100.0	100.0	
Coal	125,145,657	135,426,025	146,989,510	1.8	40.7	38.1	38.3	
Petroleum	1,959,891	1,580,092	2,515,255	2.8	.6	.4		
Natural Gas	144,440,568	172,143,924	184,911,350	2.8	47.0	48.4	48.	
Other Gases	3,539,454	4,077,715	5,999,489	6.0	1.2	1.1	1.	
Nuclear	28,745,474	38,685,129	33,437,484	1.7	9.4	10.9	8.	
Hydroelectric	1,530,436	1,424,821	896,539	-5.8	.5	.4		
Other Renewables	1,578,784	1,429,124	3,965,737	10.8	.5	.4	1.	
Other	239,260	553,334	484,320	8.2	.1	.2		

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Texas				
Coal (cents per million Btu)	135.0	123.9	125.4	-0.8
Average heat value (Btu per pound)	7,346	7,509	7,605	.4
Average sulfur Content (percent)	.7	.7	.8	.7
Petroleum (cents per million Btu)	210.8	113.4	422.8	8.0
Average heat value (Btu per gallon)	120,682	99,069	139,979	1.7
Average sulfur Content (percent)	.5	2.7	1.4	11.5
Natural Gas (cents per million Btu)	215.2	224.9	528.1	10.5
Average heat value (Btu per cubic foot)	1,023	1,024	1,029	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
exas				
Sulfur Dioxide				
Coal	511	595	573	1.3
Petroleum	37	4	22	-5.8
Natural Gas	*	1	1	4.6
Other	13	6	18	4.0
Total	562	605	614	1.0
Nitrogen Oxide				
Coal	450	251	146	-11.8
Petroleum	3	3	5	4.3
Gas	172	224	93	-6.6
Other	5	7	7	5.2
Total	630	484	252	-9.7
Carbon Dioxide				
Coal	127,044	138,777	149,718	1.8
Petroleum	2,434	1,883	2,888	1.9
Gas	88,344	104,555	102,349	1.6
Geothermal	_ ′	_ ′		NM
Other	_	_	_	NM
Total	217,822	245,215	254,955	1.8

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Percentage Share			
Sector	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
Texas								
Retail Sales (thousand megawatthours)								
Residential	89,793	110,434	121,355	3.4	34.8	36.2	37.6	
Commercial	66,467	77,231	96,694	4.3	25.7	25.3	30.0	
Industrial	90,329	102,702	104,547	1.6	35.0	33.7	32.4	
Other	11,591	14,337	NA	NM	4.5	4.7	NA	
Transportation	NA	NA	90	NM	NA	NA	*	
Total	258,180	304,705	322,686	2.5	100.0	100.0	100.0	
Retail Revenue (million dollars)								
Residential	7,255	8,448	11,111	4.8	43.8	45.7	45.9	
Commercial	4,678	5,074	7,581	5.5	28.2	27.4	31.3	
Industrial	3,858	4,047	5,512	4.0	23.3	21.9	22.8	
Other	786	917	NA	NM	4.7	5.0	NA	
Transportation	NA	NA	6	NM	NA	NA	*	
Total	16,577	18,486	24,211	4.3	100.0	100.0	100.0	
Average Retail Price (cents/kWh)								
Residential	8.08	7.65	9.16	1.4	NA	NA	NA	
Commercial	7.04	6.57	7.84	1.2	NA	NA	NA	
Industrial	4.27	3.94	5.27	2.4	NA	NA	NA	
Other	6.79	6.40	NA	NM	NA	NA	NA	
Transportation	NA	NA	6.62	NM	NA	NA	NA	
Total	6.42	6.07	7.50	1.7	NA	NA	NA	

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers						Other Providers		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total	
Texas									
Number of Entities	53	72	NA	68	17	NA	NA	210	
Number of Retail Customers	7,046,095	1,499,698	NA	1,568,284	23	NA	NA	10,114,100	
Retail Sales (thousand megawatthours)	240,342	40,960	NA	31,601	9,784	NA	NA	322,686	
Percentage of Retail Sales	74.48	12.69	NA	9.79	3.03	NA	NA	100.00	
Revenue from Retail Sales (million dollars)	18,207	3,090	NA	2,462	451	NA	NA	24,211	
Percentage of Revenue	75.20	12.76	NA	10.17	1.86	NA	NA	100.00	
Average Retail Price (cents/kWh)	7.58	7.54	NA	7.79	4.61	NA	NA	7.50	

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
Utah			
NERC Region(s)		WECC	
Primary Energy Source		Coal	
Net Summer Capability (megawatts)	5,798	39	
Electric Utilities	5,575	31	
Independent Power Producers & Combined Heat and Power	222	46	
Net Generation (megawatthours)	38,023,666	35	
Electric Utilities	37,544,892	29	
Independent Power Producers & Combined Heat and Power	478,774	46	
Emissions (thousand metric tons)			
Sulfur Dioxide	32	38	
Nitrogen Oxide	68	30	
Carbon Dioxide	34,423	28	
Sulfur Dioxide (lbs/MWh)	1.9	41	
Nitrogen Oxide (lbs/MWh)	3.9	13	
Carbon Dioxide (lbs/MWh)	1,996	9	
Total Retail Sales (megawatthours)	23,860,350	37	
Full Service Provider Sales (megawatthours)	23,860,350	37	
Direct Use (megawatthours)	360,206	40	
Average Retail Price (cents/kWh)	5.41	46	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Plant Energy Sources		Net Summer Capability (MW)
Utah			·
Intermountain Power Project	Petroleum, Coal	Los Angeles City of	1,640
2. Hunter	Petroleum, Coal	PacifiCorp	1,320
3. Huntington	Petroleum, Coal	PacifiCorp	895
4. Bonanza	Petroleum, Coal	Deseret Generation & Tran Coop	425
5. Gadsby	Gas	PacifiCorp	349
6. West Valley Generation Project	Gas	PacifiCorp	185
7. Carbon	Petroleum, Coal	PacifiCorp	172
8. Murray Turbine	Gas	Murray City of	159
9. Flaming Gorge	Hydro	U S Bureau of Reclamation	152
10. KUCC	Hydro	Kennecott Utah Copper Corporation	93

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Utah						
1. PacifiCorp	Investor-Owned	19,204,334	5,407,852	6,901,439	6,870,415	24,628
2. Provo City Corp	Public	711,158	218,306	368,263	124,589	0
3. St George City of	Public	503,052	234,584	104,075	164,393	0
4. Logan City of	Public	395,018	83,802	226,980	84,236	0
5. Murray City of	Public	368,688	111,578	257,110	0	0
Total Sales, Top Five Providers		21,182,250	6,056,122	7,857,867	7,243,633	24,628
Percent of Total State Sales		89	85	87	95	100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share	:
Energy Source	1994 1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
tah							
Electric Utilities	4,815	5,076	5,575	1.6	97.2	97.5	96.2
Coal	4,272	4,448	4,461	.5	86.3	85.4	76.9
Petroleum	25	33	28	1.3	.5	.6	.5
Natural Gas	173	238	719	17.1	3.5	4.6	12.4
Dual Fired	53	57	82	5.0	1.1	1.1	1.4
Hydroelectric	257	265	252	2	5.2	5.1	4.3
Other Renewables	35	35	33	7	.7	.7	.6
Independent Power Producers and Combined							
Heat and Power	136	130	222	5.6	2.7	2.5	3.8
Coal	54	54	144	11.5	1.1	1.0	2.5
Petroleum	1	20	3	13.0	*	.4	.1
Natural Gas.	2	4	72	48.9	*	1	1.2
Other Gases	48	48	0	NM	1.0	.9	.(
Dual Fired	21	0	0	NM	.4	.0).
Hydroelectric	10	4	2	-16.4	.2	.0	
Other Renewables	0	0	1	NM	.0	.0	a
Total Electric Industry	4,953	5,206	5,798	1.8	100.0	100.0	100.0
Coal	4.327	4,502	4,606	.7	87.4	86.5	79.4
Petroleum	27	53	31	1.5	.5	1.0	.5
Natural Gas	175	242	791	18.2	3.5	4.6	13.6
Other Gases	48	48	0	NM	1.0	.9).
Dual Fired	74	57	82	1.1	1.5	1.1	1.4
Hydroelectric	267	269	254	6	5.4	5.2	4.4
Other Renewables	35	35	34	3	.7	.7	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	:
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Utah							
Electric Utilities	34,455,058	35,160,477	37,544,892	1.0	97.9	97.9	98.7
Coal	32,764,465	33,206,731	35,579,158	.9	93.1	92.5	93.6
Petroleum	30,154	31,289	31,386	.4	.1	.1	.1
Natural Gas	749,605	463,348	1,322,984	6.5	2.1	1.3	3.5
Hydroelectric	716,030	1,299,052	412,899	-5.9	2.0	3.6	1.1
Other Renewables	194,804	160,057	198,465	.2	.6	.4	.5
Independent Power Producers and Combined							
Heat and Power	741,776	749,953	478,774	-4.7	2.1	2.1	1.3
Coal	366,199	380,943	399,490	1.0	1.0	1.1	1.1
Petroleum	2,946	3,659	1,480	-7.4	*	*	*
Natural Gas	57,654	64,909	60.123	.5	.2	.2	.2
Other Gases	280,569	284,783	0	NM	.8	.8	.0
Hydroelectric	34,408	15,659	8,440	-14.5	.1	*	*
Other Renewables	0	0	9,241	NM	.0	.0	*
Total Electric Industry	35,196,834	35,910,430	38,023,666	.9	100.0	100.0	100.0
Coal	33,130,664	33,587,674	35,978,648	.9	94.1	93.5	94.6
Petroleum	33,100	34,948	32,866	1	.1	.1	.1
Natural Gas	807,259	528,257	1,383,107	6.2	2.3	1.5	3.6
Other Gases	280,569	284,783	0	NM	.8	.8	.0
Hydroelectric	750,438	1,314,711	421,339	-6.2	2.1	3.7	1.1
Other Renewables	194,804	160.057	207,706	.7	.6	.4	.5

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Itah				
Coal (cents per million Btu)	113.6	114.8	W	W
Average heat value (Btu per pound)	11,491	11,310	11,025	-0.5
Average sulfur Content (percent)	.5	.5	.5	1.7
Petroleum (cents per million Btu)	467.4	439.5	722.2	5.0
Average heat value (Btu per gallon)	139,839	139,758	139,492	*
Average sulfur Content (percent)	.3	.3	.2	-2.0
Natural Gas (cents per million Btu)	231.6	202.5	W	W
Average heat value (Btu per cubic foot)	1,044	1.044	1,061	.2

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Jtah				
Sulfur Dioxide				
Coal	27	29	32	1.9
Petroleum	*	_	*	-5.5
Natural Gas	_	_	*	NM
Other	_	_	*	NM
Total	27	29	32	1.9
Nitrogen Oxide				
Coal	106	72	67	-5.0
Petroleum	*	*	*	-2.8
Gas	1	1	*	-10.4
Other	_	_	*	NM
Total	107	72	68	-5.0
Carbon Dioxide				
Coal	31,589	31,758	33,559	.7
Petroleum	25	28	26	.6
Gas	531	371	779	4.4
Geothermal	5	4	5	.1
Other	_	_	54	NM
Total	32,149	32,161	34,423	.8

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Utah							
Retail Sales (thousand megawatthours)							
Residential	5,009	5,756	7,166	4.1	28.1	27.8	30.0
Commercial	5,500	6,709	9,024	5.7	30.8	32.4	37.8
Industrial	6,498	7,511	7,646	1.8	36.4	36.3	32.0
Other	841	724	NA	NM	4.7	3.5	NA
Transportation	NA	NA	25	NM	NA	NA	.1
Total	17,847	20,700	23,860	3.3	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	346	394	494	4.0	36.2	36.9	38.3
Commercial	323	383	504	5.1	33.8	35.8	39.1
Industrial	249	259	290	1.7	26.0	24.2	22.5
Other	38	33	NA	NM	4.0	3.1	NA
Transportation	NA	NA	1	NM	NA	NA	.1
Total	956	1,069	1,290	3.4	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	6.91	6.84	6.90	*	NA	NA	NA
Commercial	5.87	5.71	5.59	5	NA	NA	NA
Industrial	3.83	3.45	3.79	1	NA	NA	NA
Other	4.50	4.50	NA	NM	NA	NA	NA
Transportation	NA	NA	6.01	NM	NA	NA	NA
Total	5.36	5.16	5.41	.1	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pro	Other I				
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Utah								
Number of Entities	1	41	1	9	NA	NA	NA	52
Number of Retail Customers	699,483	196,459	4	33,957	NA	NA	NA	929,903
Retail Sales (thousand megawatthours)	19,204	3,841	63	752	NA	NA	NA	23,860
Percentage of Retail Sales	80.49	16.10	.26	3.15	NA	NA	NA	100.00
Revenue from Retail Sales (million dollars)	966	276	2	46	NA	NA	NA	1,290
Percentage of Revenue	74.90	21.37	.14	3.59	NA	NA	NA	100.00
Average Retail Price (cents/kWh)	5.03	7.18	2.92	6.15	NA	NA	NA	5.41

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Vermont		
NERC Region(s)		NPCC
Primary Energy Source		Nuclear
Net Summer Capability (megawatts)	997	50
Electric Utilities	260	45
Independent Power Producers & Combined Heat and Power	738	42
Net Generation (megawatthours)	6,027,962	49
Electric Utilities	626,337	45
Independent Power Producers & Combined Heat and Power	5,401,625	34
Emissions (thousand metric tons)		
Sulfur Dioxide	*	51
Nitrogen Oxide	*	50
Carbon Dioxide	25	51
Sulfur Dioxide (lbs/MWh)	.0	51
Nitrogen Oxide (lbs/MWh)	.1	51
Carbon Dioxide (lbs/MWh)	9	51
Total Retail Sales (megawatthours)	5,352,429	51
Full Service Provider Sales (megawatthours)	5,352,429	50
Direct Use (megawatthours)	70,908	47
Average Retail Price (cents/kWh)	10.98	4

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Vermont			
1. Vermont Yankee	Nuclear	Entergy Nuclear Vermont Yankee	506
2. J C McNeil	Gas, Petroleum, Other	Burlington City of	52
3. Bellows Falls	Hydro	U S Gen New England Inc	49
4. Wilder	Hydro	U S Gen New England Inc	41
5. Harriman	Hydro	U S Gen New England Inc	40
6. Berlin 5	Petroleum	Green Mountain Power Corp	36
7. Vernon	Hydro	U S Gen New England Inc	24
8. Sheldon Springs Hydroelectric	Hydro	Missisquoi Associates	24
9. Burlington GT	Petroleum	Burlington City of	20
10. Ryegate Power Station	Other	Ryegate Associates	20

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership	All Sectors	Residential	Commercial	Industrial	Transportation
Entity	Type	All Sectors	Residential	Commerciai	industriai	11 ansportation
Vermont						
Central Vermont Pub Serv Corp	Investor-Owned	2,198,163	948,278	853,804	396,081	0
2. Green Mountain Power Corp	Investor-Owned	1,933,728	581,047	707,410	645,271	0
3. Burlington City of	Public	349,920	94,247	190,386	65,287	0
4. Omya Inc	Investor-Owned	208,221	6,231	3,519	198,471	0
5. Vermont Electric Coop, Inc	Cooperative	152,362	121,364	8,427	22,571	0
Total Sales, Top Five Providers	-	4,842,394	1,751,167	1,763,546	1,327,681	0
Percent of Total State Sales		90	87	94	91	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	Percentage Share		
Energy Source	1994 1998	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Vermont							
Electric Utilities	1,093	773	260	-14.7	93.9	78.9	26.1
Petroleum	120	117	107	-1.3	10.3	11.9	10.7
Nuclear	496	500	0	NM	42.6	51.0	.0
Hydroelectric	430	103	96	-15.3	36.9	10.5	9.6
Other Renewables	47	53	57	2.2	4.0	5.4	5.7
Independent Power Producers and Combined							
Heat and Power	71	207	738	29.7	6.1	21.1	74.0
Nuclear	0	0	506	NM	.0	.0	50.8
Hydroelectric	47	183	208	18.0	4.0	18.7	20.9
Other Renewables	24	24	24	.0	2.1	2.4	2.4
Total Electric Industry	1,164	980	997	-1.7	100.0	100.0	100.0
Petroleum	120	117	107	-1.3	10.3	11.9	10.7
Nuclear	496	500	506	.2	42.6	51.0	50.8
Hydroelectric	477	287	303	-4.9	41.0	29.3	30.4
Other Renewables	71	76	81	1.5	6.1	7.8	8.1

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share		
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Vermont							
Electric Utilities	5,293,892	4,393,537	626,337	-21.1	94.2	88.8	10.4
Petroleum	5,764	41,265	22,607	16.4	.1	.8	.4
Natural Gas	5,806	827	2,029	-11.0	.1	*	*
Nuclear	4,315,544	3,357,696	0	NM	76.8	67.9	.0
Hydroelectric	895,095	848,291	367,624	-9.4	15.9	17.1	6.1
Other Renewables	71,683	145,458	234,077	14.1	1.3	2.9	3.9
Independent Power Producers and Combined							
Heat and Power	323,138	552,760	5,401,625	36.7	5.8	11.2	89.6
Petroleum	590	1,030	0	NM	*	*	.0
Nuclear	0	0	4,444,152	NM	.0	.0	73.7
Hydroelectric	143,558	345,758	786,414	20.8	2.6	7.0	13.0
Other Renewables	178,990	205,972	171,059	5	3.2	4.2	2.8
Total Electric Industry	5,617,030	4,946,297	6,027,962	.8	100.0	100.0	100.0
Petroleum	6,354	42,295	22,607	15.1	.1	.9	.4
Natural Gas	5,806	827	2,029	-11.0	.1	*	*
Nuclear	4,315,544	3,357,696	4,444,152	.3	76.8	67.9	73.7
Hydroelectric	1,038,653	1,194,049	1,154,038	1.2	18.5	24.1	19.1
Other Renewables	250,673	351,430	405,136	5.5	4.5	7.1	6.7

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Vermont				
Petroleum (cents per million Btu)	453.5	327.1	0.0	NM
Average heat value (Btu per gallon)	135,810	136,130	0	NM
Average sulfur Content (percent)	.1	.4	.0	NM
Natural Gas (cents per million Btu)	231.5	286.1	.0	NM
Average heat value (Btu per cubic foot)	996	1,014	0	NM

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994 1998 2003		Annual Growth Rate 1994-2003 (Percent)	
Vermont				
Sulfur Dioxide				
Coal	_	_	_	NM
Petroleum	*	_	*	6.7
Natural Gas	_	_	_	NM
Other	*	*	*	.9
Total	*	*	*	4.5
Nitrogen Oxide				
Coal	_	_	_	NM
Petroleum	_	_	*	NM
Gas	*	*	_	NM
Other	*	*	*	8.7
Total	*	*	*	8.8
Carbon Dioxide				
Coal	_	_	_	NM
Petroleum	12	46	24	7.8
Gas	9	10	2	-17.0
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	21	56	25	2.2

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Po	ercentage Shai	e
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Vermont							
Retail Sales (thousand megawatthours)							
Residential	2,009	1,951	2,011	*	39.6	36.4	37.6
Commercial	1,586	1,786	1,881	1.9	31.3	33.3	35.1
Industrial	1,435	1,534	1,460	.2	28.3	28.6	27.3
Other	36	92	NA	NM	.7	1.7	NA
Total	5,067	5,363	5,352	.6	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	200	227	258	2.9	43.3	43.1	43.9
Commercial	149	181	212	4.0	32.3	34.3	36.0
Industrial	108	112	117	.9	23.4	21.3	19.9
Other	5	8	NA	NM	1.1	1.5	NA
Total	462	527	588	2.7	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	9.96	11.61	12.82	2.8	NA	NA	NA
Commercial	9.42	10.12	11.29	2.0	NA	NA	NA
Industrial	7.50	7.27	8.05	.8	NA	NA	NA
Other	14.88	8.91	NA	NM	NA	NA	NA
Total	9.13	9.83	10.98	2.1	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr	oviders		Other 1	Other Providers	
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Vermont								
Number of Entities	4	15	NA	2	1	NA	NA	22
Number of Retail Customers	238,957	51,903	NA	26,265	1	NA	NA	317,126
Retail Sales (thousand megawatthours)	4,346	772	NA	218	16	NA	NA	5,352
Percentage of Retail Sales	81.20	14.43	NA	4.08	.29	NA	NA	100.00
Revenue from Retail Sales (million dollars)	477	80	NA	31	*	NA	NA	588
Percentage of Revenue	81.18	13.54	NA	5.20	.07	NA	NA	100.00
Average Retail Price (cents/kWh)	10.98	10.31	NA	14.01	2.62	NA	NA	10.98

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Virginia		
NERC Region(s)		ECAR/SERC/MAAC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	21,257	16
Electric Utilities	17,127	14
Independent Power Producers & Combined Heat and Power	4,130	22
Net Generation (megawatthours)	75,309,420	21
Electric Utilities	61,806,347	17
Independent Power Producers & Combined Heat and Power	13,503,073	19
Emissions (thousand metric tons)		
Sulfur Dioxide	237	17
Nitrogen Oxide	79	23
Carbon Dioxide	46,125	21
Sulfur Dioxide (lbs/MWh)	6.9	17
Nitrogen Oxide (lbs/MWh)	2.3	31
Carbon Dioxide (lbs/MWh)	1,350	27
Total Retail Sales (megawatthours)	101,509,731	11
Full Service Provider Sales (megawatthours)	101,479,128	9
Deregulated Sales (megawatthours)	30,603	18
Direct Use (megawatthours)	2,995,409	14
Average Retail Price (cents/kWh)	6.27	33

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Virginia			
1. Bath County	Hydro	Dominion Virginia Power	2,400
2. North Anna	Hydro, Nuclear	Dominion Virginia Power	1,843
3. Possum Point	Coal, Gas, Petroleum	Dominion Virginia Power	1,799
4. Chesterfield	Petroleum, Gas, Coal	Dominion Virginia Power	1,631
5. Surry	Nuclear	Dominion Virginia Power	1,625
6. Yorktown	Gas, Coal, Petroleum	Dominion Virginia Power	1,144
7. Clover	Petroleum, Coal	Dominion Virginia Power	882
8. Doswell Energy Center	Petroleum, Gas	Doswell Ltd Partnership	820
9. Chesapeake	Petroleum, Coal	Dominion Virginia Power	739
10. Clinch River	Petroleum, Coal	Appalachian Power Co	690

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Virginia						
Dominion Virginia Power Appalachian Power Co	Investor-Owned Investor-Owned	68,323,177 15,555,495	25,792,476 6.160.504	33,396,930 3.812.641	8,962,099 5,582,350	171,672
Potomac Edison Co Northern Virginia Elec Coop	Investor-Owned Cooperative	2,779,894 2,603,080	1,142,020 1,611.894	580,665 658,417	1,057,209 332,769	0
Rappahannock Electric Coop Total Sales, Top Five Providers	Cooperative	2,247,193 91,508,839	1,232,673 35,939,567	110,872 38,559,525	903,648 16.838.075	0 171,672
Percent of Total State Sales		90	33,939,307	94	10,838,073	100

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	Percentage Share	
Energy Source	1994 1998 2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003		
Virginia							
Electric Utilities	13,763	15,314	17,127	2.5	80.5	81.7	80.6
Coal	4,217	5,099	4,468	.6	24.7	27.2	21.0
Petroleum	1,207	2,046	1,915	5.3	7.1	10.9	9.0
Natural Gas	398	544	1,566	16.4	2.3	2.9	7.4
Dual Fired	1,484	1,146	2,314	5.1	8.7	6.1	10.9
Nuclear	3,349	3,392	3,467	.4	19.6	18.1	16.3
Hydroelectric	763	742	759	1	4.5	4.0	3.6
Pumped Storage	2,345	2,345	2,638	1.3	13.7	12.5	12.4
Independent Power Producers and Combined Heat and Power Coal	3,330 894 6 164 1,649 22	3,434 1,122 12 360 1,283 22	4,130 1,328 358 430 1,417 21	2.4 4.5 57.5 11.3 -1.75	19.5 5.2 * 1.0 9.6	18.3 6.0 .1 1.9 6.8	19.4 6.2 1.7 2.0 6.7
Other Renewables	595	635	576	4	3.5	3.4	2.7
Total Electric Industry	17,096	18,747	21,257	2.4	100.0	100.0	100.0
Coal	5,112	6,221	5,796	1.4	29.9	33.2	27.3
Petroleum	1,213	2,057	2,273	7.2	7.1	11.0	10.7
Natural Gas	562	904	1,996	15.1	3.3	4.8	9.4
Dual Fired	3,134	2,429	3,731	2.0	18.3	13.0	17.6
Nuclear	3,349	3,392	3,467	.4	19.6	18.1	16.3
Hydroelectric	785	763	780	1	4.6	4.1	3.7
Other Renewables	596	636	576	4	3.5	3.4	2.7
Pumped Storage	2,345	2,345	2,638	1.3	13.7	12.5	12.4

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	I	Percentage Share	:
Energy Source	1994 1998 2003		2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Virginia							
Electric Utilities	52,732,286	63,814,565	61,806,347	1.8	85.0	88.4	82.1
Coal	22,448,944	31,471,297	29,145,703	2.9	36.2	43.6	38.7
Petroleum	2,373,888	2,654,660	4,982,314	8.6	3.8	3.7	6.6
Natural Gas	2,151,992	2,198,665	2,690,674	2.5	3.5	3.0	3.6
Nuclear	25,428,856	27,234,399	24,816,022	3	41.0	37.7	33.0
Hydroelectric	1,070,830	1,210,984	1,669,793	5.1	1.7	1.7	2.2
Other Renewables	11	0	0	NM	.0	.0	.0
Pumped Storage	-742,235	-955,440	-1,498,159	NM	-1.2	-1.3	-2.0
Independent Power Producers and Combined							
Heat and Power	9,316,638	8,384,874	13,503,073	4.2	15.0	11.6	17.9
Coal	4,141,711	3,404,468	7,947,628	7.5	6.7	4.7	10.6
Petroleum	516,303	271,394	798,022	5.0	.8	.4	1.1
Natural Gas	2,529,147	2,038,080	1,928,391	-3.0	4.1	2.8	2.6
Other Gases	0	58	2,959	NM	.0	.0	*
Hydroelectric	75,286	72,311	111,776	4.5	.1	.1	.1
Other Renewables	2,050,900	2,598,563	2,714,295	3.2	3.3	3.6	3.6
Other	3,291	0	0	NM	*	.0	.0
Total Electric Industry	62,048,924	72,199,439	75,309,420	2.2	100.0	100.0	100.0
Coal	26,590,655	34,875,765	37,093,331	3.8	42.9	48.3	49.3
Petroleum	2,890,191	2,926,054	5,780,336	8.0	4.7	4.1	7.7
Natural Gas	4,681,139	4,236,745	4,619,065	1	7.5	5.9	6.1
Other Gases	0	58	2,959	NM	.0	.0	*
Nuclear	25,428,856	27,234,399	24,816,022	3	41.0	37.7	33.0
Hydroelectric	1,146,116	1,283,295	1,781,569	5.0	1.8	1.8	2.4
Other Renewables	2,050,911	2,598,563	2,714,295	3.2	3.3	3.6	3.6
Pumped Storage	-742,235	-955,440	-1,498,159	NM	-1.2	-1.3	-2.0
Other	3,291	. 0	0	NM	*	.0	.0

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
⁷ irginia				
Coal (cents per million Btu)	145.0	137.8	166.5	1.6
Average heat value (Btu per pound)	12,778	12,603	12,826	*
Average sulfur Content (percent)	1.0	1.0	1.0	2
Petroleum (cents per million Btu)	216.2	203.7	498.7	9.7
Average heat value (Btu per gallon)	149,744	150,158	149,366	*
Average sulfur Content (percent)	1.1	1.1	.6	-5.4
Natural Gas (cents per million Btu)	256.6	295.4	617.5	10.3
Average heat value (Btu per cubic foot)	1,037	1,050	1,035	*

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Virginia	<u> </u>			
Sulfur Dioxide				
Coal	200	219	200	*
Petroleum	12	20	25	8.0
Natural Gas	*	*	*	-3.1
Other	12	9	12	4
Total	224	247	237	.6
Nitrogen Oxide				
Coal	112	119	67	-5.5
Petroleum	4	3	5	1.6
Gas	3	4	2	-7.4
Other	4	6	6	3.1
Total	124	132	79	-4.8
Carbon Dioxide				
Coal	29,258	36,480	38,222	3.0
Petroleum	2,818	2,759	4,653	5.7
Gas	2,437	2,379	2,342	4
Geothermal	_	_		NM
Other	140	205	908	23.1
Total	34,653	41,824	46,125	3.2

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
⁷ irginia							
Retail Sales (thousand megawatthours)							
Residential	32,343	34,703	40,877	2.6	39.3	38.3	40.3
Commercial	22,948	26,176	41,179	6.7	27.9	28.9	40.6
Industrial	18,154	20,024	19,282	.7	22.1	22.1	19.0
Other	8,766	9,705	NA	NM	10.7	10.7	NA
Transportation	NA	NA	172	NM	NA	NA	.2
Total	82,210	90,609	101,510	2.4	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	2,507	2,608	3,174	2.7	49.2	49.0	49.9
Commercial	1,339	1,469	2,365	6.5	26.3	27.6	37.2
Industrial	755	764	815	.8	14.8	14.3	12.8
Other	493	484	NA	NM	9.7	9.1	NA
Transportation	NA	NA	9	NM	NA	NA	.1
Total	5,095	5,324	6,364	2.5	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.75	7.51	7.76	*	NA	NA	NA
Commercial	5.84	5.61	5.74	2	NA	NA	NA
Industrial	4.16	3.82	4.23	.2	NA	NA	NA
Other	5.63	4.98	NA	NM	NA	NA	NA
Transportation	NA	NA	5.46	NM	NA	NA	NA
Total	6.20	5.88	6.27	.1	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pro		Other P			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Virginia								
Number of Entities	5	16	1	13	1	1	2	39
Number of Retail Customers	2,728,215	159,588	1	411,861	1	2,238	NA	3,301,904
Retail Sales (thousand megawatthours)	87,990	4,691	9	8,634	155	31	NA	101,510
Percentage of Retail Sales	86.68	4.62	.01	8.51	.15	.03	NA	100.00
Revenue from Retail Sales (million dollars)	5,351	261	*	743	6	2	1	6,364
Percentage of Revenue	84.08	4.10	*	11.67	.10	.03	.02	100.00
Average Retail Price (cents/kWh)	6.08	5.56	2.75	8.60	4.08	5.50	4.35	6.27

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
Washington			
NERC Region(s)		WECC	
Primary Energy Source		Hydro	
Net Summer Capability (megawatts)	27,689	11	
Electric Utilities	24,216	4	
Independent Power Producers & Combined Heat and Power	3,473	26	
Net Generation (megawatthours)	100,094,691	13	
Electric Utilities	82,205,391	12	
Independent Power Producers & Combined Heat and Power	17,889,301	15	
Emissions (thousand metric tons)			
Sulfur Dioxide	16	43	
Nitrogen Oxide	26	39	
Carbon Dioxide	14,984	39	
Sulfur Dioxide (lbs/MWh)	.3	48	
Nitrogen Oxide (lbs/MWh)	.6	47	
Carbon Dioxide (lbs/MWh)	330	49	
Total Retail Sales (megawatthours)	78,133,501	16	
Full Service Provider Sales (megawatthours)	76,112,939	18	
Deregulated Sales (megawatthours)	2,020,562	14	
Direct Use (megawatthours)	1,392,566	26	
Average Retail Price (cents/kWh)	5.86	41	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Washington			
1. Grand Coulee	Hydro	U S Bureau of Reclamation	7,079
2. Chief Joseph	Hydro	USCE-North Pacific Division	2,337
Transalta Centralia Generation	Petroleum, Gas, Coal	TransAlta Centralia Gen LLC	1,661
4. Rocky Reach	Hydro	PUD No 1 of Chelan County	1,279
5. Columbia Generating Station	Nuclear	Energy Northwest	1,108
6. Boundary	Hydro	Seattle City of	1,050
7. Wanapum	Hydro	PUD No 2 of Grant County	969
8. Little Goose	Hydro	USCE-North Pacific Division	932
9. Lower Monumental	Hydro	USCE-North Pacific Division	932
10. Lower Granite	Hydro	USCE-North Pacific Division	932

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours	;)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Washington						
1. Puget Sound Energy Inc	Investor-Owned	19,591,637	9,873,840	8,331,965	1,385,832	0
2. Seattle City of	Public Public	8,905,944	2,942,881	4,771,046	1,149,914	42,103
PUD No 1 of Snohomish County Avista Corporation	Investor-Owned	6,064,884 5,116,904	3,073,454 2,263,661	2,124,000 2,041,675	867,430 811.568	0
5. PUD No 1 of Cowlitz County	Public	4,217,346	684,110	362,576	3,170,660	0
Total Sales, Top Five Providers		43,896,715	18,837,946	17,631,262	7,385,404	42,103
Percent of Total State Sales		56	59	63	41	100

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

Energy Source				Annual	Percentage Share		
	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Vashington							
Electric Utilities	24,255	25,235	24,216	*	96.3	96.4	87.5
Coal	1,390	1,390	0	NM	5.5	5.3	.0
Petroleum	88	62	39	-8.6	.3	.2	.1
Natural Gas	0	248	310	NM	.0	.9	1.1
Dual Fired	590	590	843	4.0	2.3	2.3	3.0
Nuclear	1,086	1,123	1,108	.2	4.3	4.3	4.0
Hydroelectric	20,740	21,479	21,408	.4	82.3	82.1	77.3
Other Renewables	47	83	194	17.1	.2	.3	.7
Pumped Storage	314	260	314	.0	1.2	1.0	1.1
Independent Power Producers and Combined							
Heat and Power	934	932	3,473	15.7	3.7	3.6	12.5
Coal	2	2	1,407	107.2	*	*	5.1
Natural Gas	422	525	938	9.3	1.7	2.0	3.4
Dual Fired	256	149	672	11.3	1.0	.6	2.4
Hydroelectric	93	100	48	-7.1	.4	.4	.2
Other Renewables	161	156	408	10.9	.6	.6	1.5
Total Electric Industry	25,190	26,167	27,689	1.1	100.0	100.0	100.0
Coal	1,392	1,392	1,407	.1	5.5	5.3	5.1
Petroleum	88	62	39	-8.6	.3	.2	.1
Natural Gas	423	773	1,247	12.8	1.7	3.0	4.5
Dual Fired	846	739	1,515	6.7	3.4	2.8	5.5
Nuclear	1,086	1,123	1,108	.2	4.3	4.3	4.0
Hydroelectric	20,833	21,579	21,457	.3	82.7	82.5	77.5
Other Renewables	208	239	602	12.5	.8	.9	2.2
Pumped Storage	314	260	314	.0	1.2	1.0	1.1

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share		
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Vashington							
Electric Utilities	82,347,668	97,127,552	82,205,391	*	93.0	95.1	82.1
Coal.	9,800,260	9,290,499	0	NM	11.1	9.1	.0
Petroleum	5,728	38,598	7,851	3.6	*	*	*
Natural Gas	206,234	1,135,268	2,256,386	30.5	.2	1.1	2.3
Nuclear	6,739,749	6,916,065	7,614,708	1.4	7.6	6.8	7.6
Hydroelectric	65,200,038	79,409,678	71,540,502	1.0	73.6	77.7	71.5
Other Renewables	395,659	337,444	789,237	8.0	.4	.3	.8
Pumped Storage	0	0	-3,293	NM	.0	.0	*
Independent Power Producers and Combined							
Heat and Power	6,238,808	5,030,956	17,889,300	12.4	7.0	4.9	17.9
Coal	31,072	21,706	11,089,796	92.1	*	*	11.1
Petroleum	39,691	48,445	58,741	4.5	*	*	.1
Natural Gas	4,614,348	3,211,081	4,826,219	.5	5.2	3.1	4.8
Other Gases	299,161	348,881	303,188	.1	.3	.3	.3
Hydroelectric	375,449	404,974	216,281	-5.9	.4	.4	.2
Other Renewables	847,805	994,328	1,395,075	5.7	1.0	1.0	1.4
Other	31,282	1,541	0	NM	*	*	.0
Total Electric Industry	88,586,476	102,158,508	100,094,691	1.4	100.0	100.0	100.0
Coal	9,831,332	9,312,205	11,089,796	1.3	11.1	9.1	11.1
Petroleum	45,419	87,043	66,592	4.3	.1	.1	.1
Natural Gas	4,820,582	4,346,349	7,082,605	4.4	5.4	4.3	7.1
Other Gases	299,161	348,881	303,188	.1	.3	.3	.3
Nuclear	6,739,749	6,916,065	7,614,708	1.4	7.6	6.8	7.6
Hydroelectric	65,575,487	79,814,652	71,756,783	1.0	74.0	78.1	71.7
Other Renewables	1,243,464	1,331,772	2,184,312	6.5	1.4	1.3	2.2
Pumped Storage	0	0	-3,293	NM	.0	.0	*
Other	31,282	1.541	0	NM	*	*	.0

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Washington				
Coal (cents per million Btu)	136.5	148.7	W	W
Average heat value (Btu per pound)	8,400	8,215	8,052	-0.5
Average sulfur Content (percent)	.6	.6	1.0	5.0
Petroleum (cents per million Btu)	472.0	405.3	W	W
Average heat value (Btu per gallon)	139,934	139,908	145,439	.4
Average sulfur Content (percent)	.3	.3	.3	-1.4
Natural Gas (cents per million Btu)	471.2	325.9	415.3	-1.4
Average heat value (Btu per cubic foot)	1,050	1,055	1,029	2

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	Type 1994 1998		2003	Annual Growth Rate 1994-2003 (Percent)
Vashington				
Sulfur Dioxide				
Coal	65	66	8	-20.2
Petroleum	1	1	1	-3.9
Natural Gas	*	_	*	3.2
Other	9	1	7	-3.1
Total	74	69	16	-15.8
Nitrogen Oxide				
Coal	61	22	19	-12.2
Petroleum	*	*	*	-3.1
Gas	3	5	4	4.8
Other	3	3	3	.5
Total	67	30	26	-9.9
Carbon Dioxide				
Coal	10,087	9,971	11,209	1.2
Petroleum	238	292	254	.7
Gas	3,167	2,952	3,425	.9
Geothermal	_			NM
Other	37	35	96	11.3
Total	13,528	13,251	14,984	1.1

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

Sector		1998	2003	Annual Growth Rate 1994-2003 (Percent)	Percentage Share		
	1994				1994	1998	2003
Washington							
Retail Sales (thousand megawatthours)							
Residential	29,673	31,362	31,872	0.8	34.0	33.1	40.8
Commercial	19,752	22,248	28,039	4.0	22.7	23.4	35.9
Industrial	34,065	37,616	18,180	-6.7	39.1	39.6	23.3
Other	3,643	3,645	NA	NM	4.2	3.8	NA
Transportation	NA	NA	42	NM	NA	NA	*
Total	87,133	94,873	78,134	-1.2	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,476	1,577	2,010	3.5	42.2	41.1	43.9
Commercial	932	1,071	1,701	6.9	26.6	27.9	37.1
Industrial	951	1,062	866	-1.0	27.2	27.6	18.9
Other	140	132	NA	NM	4.0	3.4	NA
Transportation	NA	NA	3	NM	NA	NA	.1
Total	3,499	3,841	4,580	3.0	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	4.97	5.03	6.31	2.7	NA	NA	NA
Commercial	4.72	4.81	6.07	2.8	NA	NA	NA
Industrial	2.79	2.64	4.76	6.1	NA	NA	NA
Other	3.83	3.61	NA	NM	NA	NA	NA
Transportation	NA	NA	6.45	NM	NA	NA	NA
Total	4.02	4.03	5.86	4.3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

	Full Service Providers					Other P		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Washington								
Number of Entities	3	41	1	18	1	3	1	68
Number of Retail Customers	1,302,818	1,446,284	9	145,935	1	16	NA	2,895,063
Retail Sales (thousand megawatthours)	28,853	42,202	1,434	3,616	9	2,021	NA	78,134
Percentage of Retail Sales	36.93	54.01	1.83	4.63	.01	2.59	NA	100.00
Revenue from Retail Sales (million dollars)	1,793	2,357	47	200	*	171	12	4,580
Percentage of Revenue	39.15	51.45	1.04	4.37	*	3.74	.25	100.00
Average Retail Price (cents/kWh)	6.22	5.58	3.31	5.53	2.50	8.47	.57	5.86

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank	
West Virginia			
NERC Region(s)		ECAR	
Primary Energy Source		Coal	
Net Summer Capability (megawatts)	16,124	24	
Electric Utilities	10,164	23	
Independent Power Producers & Combined Heat and Power	5,960	18	
Net Generation (megawatthours)	94,711,554	15	
Electric Utilities	64,056,696	16	
Independent Power Producers & Combined Heat and Power	30,654,858	10	
Emissions (thousand metric tons)			
Sulfur Dioxide	508	6	
Nitrogen Oxide	194	5	
Carbon Dioxide	85,676	7	
Sulfur Dioxide (lbs/MWh)	11.8	3	
Nitrogen Oxide (lbs/MWh)	4.5	5	
Carbon Dioxide (lbs/MWh)	1,994	10	
Total Retail Sales (megawatthours)	28,296,993	35	
Full Service Provider Sales (megawatthours)	28,296,993	35	
Direct Use (megawatthours)	1,816,264	23	
Average Retail Price (cents/kWh)	5.13	49	

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
West Virginia			
1. John E Amos	Petroleum, Coal	Appalachian Power Co	2,900
2. Harrison Power Station	Gas, Coal	Allegheny Energy Supply Co LLC	1,933
3. Mitchell	Petroleum, Coal	Ohio Power Co	1,600
4. Mt Storm	Petroleum, Coal	Dominion Virginia Power	1,581
5. Mountaineer	Petroleum, Coal	Appalachian Power Co	1,300
6. Pleasants Power Station	Gas, Coal	Allegheny Energy Supply Co LLC	1,278
7. Fort Martin Power Station	Petroleum, Coal	Allegheny Energy Supply Co LLC	1,107
8. Philip Sporn	Petroleum, Coal	Appalachian Power Co	1,020
9. Kammer	Petroleum, Coal	Ohio Power Co	600
10. Ceredo Generating Station	Gas	Orion Power Operating Services	457

See footnotes at end of tables.

 $Table \ 3. \quad Top \ Five \ Providers \ of \ Retail \ Electricity, \ 2003$

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
West Virginia						
Appalachian Power Co	Investor-Owned	12,970,334	5,321,721	3,596,536	4,052,077	0
2. Monongahela Power Co	Investor-Owned	10,327,815	3,131,350	2,388,251	4,808,214	0
3. Potomac Edison Co	Investor-Owned	2,858,398	1,440,177	677,463	740,758	0
4. Wheeling Power Co	Investor-Owned	1,857,555	413,557	391,616	1,052,382	0
5. Harrison Rural Elec Assn, Inc	Cooperative	58,500	49,520	8,980	0	0
Total Sales, Top Five Providers	-	28,072,602	10,356,325	7,062,846	10,653,431	0
Percent of Total State Sales		99	99	99	100	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	1	Percentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Vest Virginia							
Electric Utilities	14,510	14,495	10,164	-3.9	95.7	96.3	63.0
Coal	14,393	14,381	10,108	-3.9	95.0	95.5	62.7
Petroleum	12	12	12	.0	.1	.1	.1
Hydroelectric	105	102	44	-9.2	.7	.7	.3
Independent Power Producers and Combined							
Heat and Power	648	561	5,960	28.0	4.3	3.7	37.0
Coal	472	385	4,608	28.8	3.1	2.6	28.6
Natural Gas	0	0	765	NM	.0	.0	4.7
Other Gases	25	25	95	16.0	.2	.2	.6
Dual Fired	11	11	292	44.0	.1	.1	1.8
Hydroelectric	140	140	134	5	.9	.9	.8
Other Renewables	0	0	66	NM	.0	.0	.4
Total Electric Industry	15,158	15,055	16,124	.7	100.0	100.0	100.0
Coal	14,865	14,765	14,716	1	98.1	98.1	91.3
Petroleum	12	12	12	.0	.1	.1	.1
Natural Gas	0	0	764	NM	.0	.0	4.7
Other Gases	25	25	95	16.0	.2	.2	.6
Dual Fired	11	11	292	44.0	.1	.1	1.8
Hydroelectric	245	242	179	-3.4	1.6	1.6	1.1
Other Renewables	0	0	66	NM	.0	.0	.4

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	e
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Vest Virginia							
Electric Utilities	77,702,716	89,605,447	64,056,696	-2.1	95.4	96.5	67.0
Coal	77,063,151	89,007,644	63,499,194	-2.1	94.6	95.9	67.0
Petroleum	251,487	194,277	210,060	-2.0	.3	.2	.2
Natural Gas	25,075	42,195	3,998	-18.5	*	*	*
Hydroelectric	363,003	361,331	322,664	-1.3	.4	.4	.3
Other Renewables	0	0	20,780	NM	.0	.0	*
Independent Power Producers and Combined							
Heat and Power	3,726,826	3,216,739	30,654,858	26.4	4.6	3.5	32.4
Coal	2,565,415	2,205,711	28,969,789	30.9	3.1	2.4	30.6
Petroleum	20,403	6,668	37,837	7.1	*	*	:
Natural Gas	145,464	142,278	273,839	7.3	.2	.2	.3
Other Gases	212,708	136,854	169,782	-2.5	.3	.1	
Hydroelectric	782,632	725,013	1,033,367	3.1	1.0	.8	1.1
Other Renewables	0	0	170,242	NM	.0	.0	
Other	204	215	0	NM	.0	.0).
Total Electric Industry	81,429,542	92,822,186	94,711,554	1.7	100.0	100.0	100.0
Coal	79,628,566	91,213,355	92,468,983	1.7	97.8	98.3	97.0
Petroleum	271,890	200,945	247,897	-1.0	.3	.2	
Natural Gas	170,539	184,473	277,837	5.6	.2	.2	
Other Gases	212,708	136,854	169,782	-2.5	.3	.1	
Hydroelectric	1,145,635	1,086,344	1,356,031	1.9	1.4	1.2	1.
Other Renewables	0	0	191,022	NM	.0	.0	
Other	204	215	0	NM	.0	.0	.0

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
West Virginia				
Coal (cents per million Btu)	139.2	122.2	124.6	-1.2
Average heat value (Btu per pound)	12,468	12,305	12,166	3
Average sulfur Content (percent)	1.9	1.9	1.7	-1.1
Petroleum (cents per million Btu)	442.4	370.9	724.6	5.6
Average heat value (Btu per gallon)	139,324	139,186	140,526	.1
Average sulfur Content (percent)	.1	.1	.2	8.3
Natural Gas (cents per million Btu)	400.1	351.4	632.7	5.2
Average heat value (Btu per cubic foot)	1,000	1,000	1,024	.3

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Vest Virginia				
Sulfur Dioxide				
Coal	990	596	507	-7.2
Petroleum	*	*	*	1.2
Natural Gas	_	_	_	NM
Other	_	_	*	NM
Total	991	596	508	-7.2
Nitrogen Oxide				
Coal	284	277	193	-4.2
Petroleum	*	*	*	-7.8
Gas	1	1	*	-11.1
Other	_	_	*	NM
Total	285	278	194	-4.2
Carbon Dioxide				
Coal	73,357	82,673	85,056	1.7
Petroleum	253	169	189	-3.2
Gas	374	542	416	1.2
Geothermal	_	_	_	NM
Other	_	_	14	NM
Total	73,984	83,384	85,676	1.6

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Pe	ercentage Shar	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	34.1 23.4 42.1 .3 100.0 42.4 25.6 31.4 .6 100.0 NA	2003
West Virginia							
Retail Sales (thousand megawatthours)							
Residential	8,663	9,053	10,473	2.1	35.0	34.1	37.0
Commercial	5,539	6,208	7,136	2.8	22.4	23.4	25.2
Industrial	10,482	11,161	10,687	.2	42.3	42.1	37.8
Other	92	89	NA	NM	.4	.3	NA
Total	24,776	26,511	28,297	1.5	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	551	570	654	1.9	42.4	42.4	45.1
Commercial	323	345	389	2.1	24.8	25.6	26.8
Industrial	417	422	408	2	32.1	31.4	28.1
Other	9	8	NA	NM	.7	.6	NA
Total	1,300	1,345	1,450	1.2	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	6.36	6.29	6.24	2	NA	NA	NA
Commercial	5.83	5.56	5.45	8	NA	NA	NA
Industrial	3.98	3.78	3.81	5	NA	NA	NA
Other	9.44	9.39	NA	NM	NA	NA	NA
Total	5.25	5.07	5.13	3	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr		Other 1			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
West Virginia								
Number of Entities	11	2	NA	3	1	NA	NA	17
Number of Retail Customers	961,675	3,516	NA	9,318	1	NA	NA	974,510
Retail Sales (thousand megawatthours)	28,109	71	NA	96	22	NA	NA	28,297
Percentage of Retail Sales	99.33	.25	NA	.34	.08	NA	NA	100.00
Revenue from Retail Sales (million dollars)	1,436	4	NA	9	1	NA	NA	1,450
Percentage of Revenue	99.04	.30	NA	.59	.07	NA	NA	100.00
Average Retail Price (cents/kWh)	5.11	6.24	NA	8.94	4.35	NA	NA	5.13

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Wisconsin		
NERC Region(s)		MAIN/MAPP
Primary Energy Source		Coal
Net Summer Capability (megawatts)	14,309	25
Electric Utilities	12,569	19
Independent Power Producers & Combined Heat and Power	1,739	33
Net Generation (megawatthours)	60,122,425	23
Electric Utilities	56,068,698	18
Independent Power Producers & Combined Heat and Power	4,053,726	37
Emissions (thousand metric tons)		
Sulfur Dioxide	232	18
Nitrogen Oxide	94	17
Carbon Dioxide	48,410	19
Sulfur Dioxide (lbs/MWh)	8.5	11
Nitrogen Oxide (lbs/MWh)	3.4	15
Carbon Dioxide (lbs/MWh)	1,775	15
Total Retail Sales (megawatthours)	67,241,494	22
Full Service Provider Sales (megawatthours)	67,241,494	21
Direct Use (megawatthours)	2,755,932	17
Average Retail Price (cents/kWh)	6.64	26

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Plant Energy Sources		Net Summer Capability (MW)
Wisconsin			
1. Pleasant Prairie	Petroleum, Gas, Coal	Wisconsin Electric Power Co	1,226
2. South Oak Creek	Gas, Coal	Wisconsin Electric Power Co	1,153
3. Columbia	Petroleum, Coal	Wisconsin Power & Light Co	1,109
4. Point Beach	Petroleum, Nuclear	Wisconsin Electric Power Co	1,041
5. Edgewater	Petroleum, Other, Coal	Wisconsin Power & Light Co	831
6. Weston	Gas, Coal	Wisconsin Public Service Corp	553
7. Kewaunee	Nuclear	Wisconsin Public Service Corp	539
8. RockGen Energy Center	Petroleum, Gas	RockGen Energy LLC	467
9. Pulliam	Gas, Coal	Wisconsin Public Service Corp	463
10. Paris	Petroleum, Gas	Wisconsin Electric Power Co	400

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Wisconsin						
Wisconsin Electric Power Co	Investor-Owned	24,858,918	7,761,420	8,515,815	8,581,683	0
2. Wisconsin Public Service Corp	Investor-Owned	10,388,244	2,969,607	3,472,094	3,946,543	0
3. Wisconsin Power & Light Co	Investor-Owned	10,034,852	3,338,576	2,188,777	4,507,499	0
4. Northern States Power Co	Investor-Owned	5,726,898	1,828,670	1,093,670	2,804,558	0
5. Madison Gas & Electric Co	Investor-Owned	3,081,367	800,535	1,981,383	299,449	0
Total Sales, Top Five Providers		54,090,279	16,698,808	17,251,739	20,139,732	0
Percent of Total State Sales		80	78	86	78	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	1	Percentage Share	:
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
isconsin							
Electric Utilities	11,265	11,863	12,569	1.2	94.9	91.8	87.8
Coal	7,182	7,198	7,123	1	60.5	55.7	49.8
Petroleum	796	854	618	-2.8	6.7	6.6	4.3
Natural Gas	98	235	417	17.5	.8	1.8	2.9
Dual Fired	1,146	1,579	2,382	8.5	9.7	12.2	16.6
Nuclear	1,499	1,494	1,565	.5	12.6	11.6	10.9
Hydroelectric	440	443	427	3	3.7	3.4	3.0
Other Renewables	104	60	37	-10.8	.9	.5	
Independent Power Producers and Combined Heat and Power Coal	607 408 8 15 45 65 66 0	1,056 448 3 21 461 54 69 0	1,739 316 3 189 956 50 204	12.4 -2.8 -10.3 32.5 40.4 -2.9 13.4 NM	5.1 3.4 .1 .1 .4 .5 .6	8.2 3.5 * .2 3.6 .4 .5	12.3 2.3 1.3 6.3 1.4
Total Electric Industry	11,872	12,919	14,309	2.1	100.0	100.0	100.0
Coal	7,590	7,646	7,439	2	63.9	59.2	52.0
Petroleum	804	857	621	-2.8	6.8	6.6	4.
Natural Gas	113	256	606	20.5	1.0	2.0	4.
Dual Fired	1,191	2,040	3,338	12.1	10.0	15.8	23.
Nuclear	1,499	1,494	1,565	.5	12.6	11.6	10.9
Hydroelectric	506	497	478	6	4.3	3.8	3.
Other Renewables	169	129	241	4.0	1.4	1.0	1.7
Other	0	0	21	NM	.0	.0	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	:
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994 1998		2003
Visconsin							
Electric Utilities	49,437,481	52,529,065	56,068,698	1.4	94.4	93.1	93.3
Coal	35,282,695	39,785,759	40,579,973	1.6	67.4	70.5	67.5
Petroleum	171,563	200,225	185,625	.9	.3	.4	.3
Natural Gas	286,969	1,187,522	1,131,999	16.5	.5	2.1	1.9
Nuclear	11,516,469	9,397,174	12,215,463	.7	22.0	16.6	20.3
Hydroelectric	1,914,414	1,517,765	1,623,369	-1.8	3.7	2.7	2.7
Other Renewables	265,371	440,620	332,269	2.5	.5	.8	.6
Independent Power Producers and Combined Heat and Power	2,921,474	3,918,366	4.053,726	3.7	5.6	6.9	6.7
Coal	1.196.324	1.238.234	1.137.243	6	2.3	2.2	1.9
Petroleum	258,100	291,270	287,162	1.2	.5	.5	.5
Natural Gas.	317.686	1.296.753	1,346,392	17.4	.6	2.3	2.2
Hydroelectric	313,895	229.659	219.926	-3.9	.6	.4	.4
Other Renewables	835,469	862,450	1,034,221	2.4	1.6	1.5	1.7
Other	0	0	28,782	NM	.0	.0	*
Total Electric Industry	52,358,955	56,447,431	60,122,425	1.5	100.0	100.0	100.0
Coal	36,479,019	41,023,993	41,717,216	1.5	69.7	72.7	69.4
Petroleum	429,663	491,495	472,787	1.1	.8	.9	.8
Natural Gas	604,655	2,484,275	2,478,391	17.0	1.2	4.4	4.1
Nuclear	11,516,469	9,397,174	12,215,463	.7	22.0	16.6	20.3
Hydroelectric	2,228,309	1,747,424	1,843,295	-2.1	4.3	3.1	3.1
Other Renewables	1,100,840	1,303,070	1,366,490	2.4	2.1	2.3	2.3
Other	0	0	28,782	NM	.0	.0	*

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Visconsin				
Coal (cents per million Btu)	120.9	107.4	W	W
Average heat value (Btu per pound)	9,565	9,299	9,006	-0.7
Average sulfur Content (percent)	.5	.5	.4	-3.2
Petroleum (cents per million Btu)	220.8	83.4	\mathbf{W}	W
Average heat value (Btu per gallon)	103,860	75,080	134,342	2.9
Average sulfur Content (percent)	3.0	5.3	5.3	6.7
Natural Gas (cents per million Btu)	263.4	264.1	581.8	9.2
Average heat value (Btu per cubic foot)	1.011	1,013	1.002	1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Visconsin				
Sulfur Dioxide				
Coal	217	222	215	-0.1
Petroleum	18	3	9	-7.6
Natural Gas	_	*	*	NM
Other	21	5	9	-9.5
Total	255	231	232	-1.1
Nitrogen Oxide				
Coal	180	113	87	-7.8
Petroleum	2	1	2	2.9
Gas	2	2	2	1.2
Other	5	4	3	-6.0
Total	189	121	94	-7.5
Carbon Dioxide				
Coal	38,896	44,312	45,549	1.8
Petroleum	869	844	932	.8
Gas	833	1,948	1,753	8.6
Geothermal	_	_	_	NM
Other	1	1	176	81.8
Total	40,599	47,105	48,410	2.0

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	P	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Visconsin							
Retail Sales (thousand megawatthours)							
Residential	17,660	19,087	21,364	2.1	31.9	30.8	31.8
Commercial	14,378	16,193	20,056	3.8	25.9	26.1	29.8
Industrial	22,714	26,040	25,821	1.4	41.0	42.0	38.4
Other	659	741	NA	NM	1.2	1.2	NA
Total	55,412	62,061	67,241	2.2	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	1,250	1,369	1,853	4.5	41.3	40.5	41.5
Commercial	844	951	1,397	5.8	27.9	28.2	31.3
Industrial	883	1,004	1,217	3.6	29.2	29.7	27.2
Other	46	52	NA	NM	1.5	1.5	NA
Total	3,023	3,376	4,468	4.4	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	7.08	7.17	8.67	2.3	NA	NA	NA
Commercial	5.87	5.87	6.97	1.9	NA	NA	NA
Industrial	3.89	3.86	4.71	2.1	NA	NA	NA
Other	7.00	7.01	NA	NM	NA	NA	NA
Total	5.46	5.44	6.64	2.2	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	l Service Pr		Other l			
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Wisconsin								
Number of Entities	12	82	NA	25	6	NA	NA	125
Number of Retail Customers	2,262,424	254,781	NA	236,036	6	NA	NA	2,753,247
Retail Sales (thousand megawatthours)	56,396	7,500	NA	3,282	63	NA	NA	67,241
Percentage of Retail Sales	83.87	11.15	NA	4.88	.09	NA	NA	100.00
Revenue from Retail Sales (million dollars)	3,780	412	NA	273	2	NA	NA	4,468
Percentage of Revenue	84.61	9.22	NA	6.12	.05	NA	NA	100.00
Average Retail Price (cents/kWh)	6.70	5.49	NA	8.33	3.58	NA	NA	6.64

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	U.S. Rank
Vyoming		
NERC Region(s)		WECC
Primary Energy Source		Coal
Net Summer Capability (megawatts)	6,562	37
Electric Utilities	6,088	30
Independent Power Producers & Combined Heat and Power	475	45
Net Generation (megawatthours)	43,626,602	32
Electric Utilities	42,261,405	23
Independent Power Producers & Combined Heat and Power	1,365,197	42
Emissions (thousand metric tons)		
Sulfur Dioxide	84	27
Nitrogen Oxide	81	20
Carbon Dioxide	45,320	22
Sulfur Dioxide (lbs/MWh)	4.2	29
Nitrogen Oxide (lbs/MWh)	4.1	8
Carbon Dioxide (lbs/MWh)	2,290	2
Total Retail Sales (megawatthours)	13,253,836	40
Full Service Provider Sales (megawatthours)	13,253,836	40
Direct Use (megawatthours)	661,603	33
Average Retail Price (cents/kWh)	4.76	50

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Wyoming			·
1. Jim Bridger	Petroleum, Coal	PacifiCorp	2,120
2. Laramie River Station	Petroleum, Coal	Basin Electric Power Coop	1,650
3. Dave Johnston	Petroleum, Coal	PacifiCorp	762
4. Naughton	Gas, Coal	PacifiCorp	700
5. Wyodak	Petroleum, Coal	PacifiCorp	335
6. Wyoming Wind Energy Center	Other	FPL Energy Wyoming Wind LLC	144
7. Neil Simpson II	Petroleum, Gas, Coal	Black Hills Corp	114
8. Wygen 1	Gas, Coal	Black Hills Corp	70
9. Fremont Canyon	Hydro	U S Bureau of Reclamation	67
10. Seminoe	Hydro	U S Bureau of Reclamation	52

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership	All Sectors	Residential	Commercial	Industrial	Transportation
***	Туре					•
Wyoming						
1. PacifiCorp	Investor-Owned	7,647,089	940,823	1,250,679	5,455,587	0
2. Powder River Energy Corp	Cooperative	1,826,531	160,896	741,122	924,513	0
3. Cheyenne Light Fuel & Power Co	Investor-Owned	920,767	221,144	342,379	357,244	0
4. High Plains Power, Inc	Cooperative	732,903	118,837	59,917	554,149	0
5. Lower Valley Energy Inc	Cooperative	522,376	293,128	218,990	10,258	0
Total Sales, Top Five Providers	•	11,649,666	1,734,828	2,613,087	7,301,751	0
Percent of Total State Sales		88	76	80	95	0

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	P	ercentage Share	
Energy Source	1994	1994 1998		Growth Rate 1994-2003 (Percent)	1994	1998	2003
Vyoming							
Electric Utilities	5,874	6,018	6,088	0.4	98.5	98.5	92.8
Coal	5,567	5,710	5,692	.2	93.3	93.4	86.7
Petroleum	15	10	5	-11.5	.3	.2	.1
Natural Gas	0	0	85	NM	.0	.0	1.3
Hydroelectric	292	298	300	.3	4.9	4.9	4.6
Other Renewables	0	0	6	NM	.0	.0	.1
Independent Power Producers and Combined							
Heat and Power	92	94	475	20.0	1.5	1.5	7.2
Coal	28	28	100	15.2	.5	.5	1.5
Petroleum	0	1	4	NM	.0	*	.1
Natural Gas	50	51	92	7.0	.8	.8	1.4
Other Gases	3	2	0	NM	*	*	.(
Other Renewables	0	1	279	NM	.0	*	4.3
Other	11	11	0	NM	.2	.2	.(
Total Electric Industry	5,966	6,112	6,562	1.1	100.0	100.0	100.0
Coal	5,595	5,738	5,792	.4	93.8	93.9	88.3
Petroleum	15	11	8	-6.7	.3	.2	
Natural Gas	50	51	177	15.1	.8	.8	2.3
Other Gases	3	2	0	NM	*	*	.(
Hydroelectric	292	298	300	.3	4.9	4.9	4.0
Other Renewables	0	1	285	NM	.0	*	4.3
Other	11	11	0	NM	.2	.2	.(

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	Percentage Share			
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003	
Vyoming								
Electric Utilities	42,337,169	44,699,071	42,261,405	*	98.5	98.6	96.9	
Coal	41,380,267	43,287,140	41,490,825	*	96.2	95.5	95.1	
Petroleum	47,029	42,871	41,567	-1.4	.1	.1	.1	
Natural Gas	12,664	26,738	119,729	28.4	*	.1	.3	
Hydroelectric	897,209	1,342,322	593,555	-4.5	2.1	3.0	1.4	
Other Renewables	0	0	15,729	NM	.0	.0	*	
Independent Power Producers and Combined								
Heat and Power	665,116	648,225	1,365,197	8.3	1.5	1.4	3.1	
Coal	193,972	216,923	850,627	17.9	.5	.5	1.9	
Petroleum	6,542	2,760	3,354	-7.2	*	*	*	
Natural Gas	388,192	341,676	160,467	-9.3	.9	.8	.4	
Other Gases	3,224	7,505	0	NM	*	*	.(
Other Renewables	18,440	2.045	350,749	38.7	*	*	3.	
Other	54,746	77,316	0	NM	.1	.2	.(
Total Electric Industry	43,002,285	45,347,296	43,626,602	.2	100.0	100.0	100.0	
Coal	41,574,239	43,504,063	42,341,452	.2	96.7	95.9	97.1	
Petroleum	53,571	45,631	44,921	-1.9	.1	.1	.1	
Natural Gas	400,856	368,414	280,196	-3.9	.9	.8	.6	
Other Gases	3,224	7,505	0	NM	*	*	.(
Hydroelectric	897,209	1,342,322	593,555	-4.5	2.1	3.0	1.4	
Other Renewables	18,440	2,045	366,478	39.4	*	*	3.	
Other	54,746	77,316	0	NM	.1	.2	.(

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Vyoming				
Coal (cents per million Btu)	80.3	78.6	82.3	0.3
Average heat value (Btu per pound)	8,766	8,794	8,826	.1
Average sulfur Content (percent)	.5	.5	.5	6
Petroleum (cents per million Btu)	444.5	405.5	714.4	5.4
Average heat value (Btu per gallon)	138,987	139,140	139,592	*
Average sulfur Content (percent)	.3	.3	.3	7
Natural Gas (cents per million Btu)	561.4	796.0	W	W
Average heat value (Btu per cubic foot)	1,033	1,044	997	4

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
Vyoming				
Sulfur Dioxide				
Coal	86	93	84	-0.2
Petroleum	*	*	*	-21.9
Natural Gas	_	_	_	NM
Other	*	1	_	NM
Total	86	94	84	3
Nitrogen Oxide				
Coal	197	98	81	-9.4
Petroleum	*	*	*	-10.3
Gas	1	1	*	-14.3
Other	*	_	_	NM
Total	198	98	81	-9.4
Carbon Dioxide				
Coal	43,652	46,050	45,106	.4
Petroleum	73	80	39	-6.7
Gas	252	265	174	-4.0
Geothermal	_	_	_	NM
Other	_	_	_	NM
Total	43,977	46,394	45,320	.3

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Po	ercentage Shai	e
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
Wyoming							
Retail Sales (thousand megawatthours)							
Residential	1,865	2,013	2,286	2.3	15.9	17.3	17.3
Commercial	2,428	2,490	3,282	3.4	20.8	21.4	24.8
Industrial	7,260	6,950	7,685	.6	62.1	59.7	58.0
Other	144	188	NA	NM	1.2	1.6	NA
Total	11,696	11,641	13,254	1.4	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	113	126	161	4.0	22.6	25.1	25.6
Commercial	122	131	189	5.0	24.4	26.1	30.0
Industrial	255	235	281	1.1	51.1	46.8	44.6
Other	9	10	NA	NM	1.8	2.0	NA
Total	499	502	630	2.6	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	6.04	6.28	7.04	1.7	NA	NA	NA
Commercial	5.02	5.25	5.74	1.5	NA	NA	NA
Industrial	3.51	3.38	3.65	.4	NA	NA	NA
Other	6.45	5.15	NA	NM	NA	NA	NA
Total	4.26	4.31	4.76	1.2	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Ful	Service Pro	viders		Other 1		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
Wyoming								
Number of Entities	5	13	1	15	1	NA	NA	35
Number of Retail Customers	177,304	29,730	3	83,933	1	NA	NA	290,971
Retail Sales (thousand megawatthours)	8,995	522	17	3,717	3	NA	NA	13,254
Percentage of Retail Sales	67.87	3.94	.13	28.05	.02	NA	NA	100.00
Revenue from Retail Sales (million dollars)	424	30	*	176	*	NA	NA	630
Percentage of Revenue	67.20	4.84	.05	27.91	.01	NA	NA	100.00
Average Retail Price (cents/kWh)	4.71	5.84	1.76	4.73	1.53	NA	NA	4.76

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit,and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

Table 4 "Other Renewables" includes generation from municipal solid waste; Table 7 "Other" includes emissions from municipal solid waste. Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

W = Withheld to avoid disclosure of individual company data;

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table 1. 2003 Summary Statistics

Item	Value	Highest	Lowest
United States			
Primary Energy Source	Coal		
Net Summer Capability (megawatts)	948,446	Texas	District of Columbia
Electric Utilities	547,249	Florida	District of Columbia
Independent Power Producers & Combined Heat and Power	401,197	Texas	Nebraska
Net Generation (megawatthours)	3,883,185,205	Texas	District of Columbia
Electric Utilities	2,462,280,615	Florida	Maine
Independent Power Producers & Combined Heat and Power	1,420,904,590	Texas	South Dakota
Emissions (thousand metric tons)			
Sulfur Dioxide	10,643	Ohio	Vermont
Nitrogen Oxide	4,326	Ohio	District of Columbia
Carbon Dioxide	2,415,804	Texas	Vermont
Sulfur Dioxide (lbs/MWh)	6.0	Ohio	Vermont
Nitrogen Oxide (lbs/MWh)	2.5	District of Columbia	Vermont
Carbon Dioxide (lbs/MWh)	1,372	District of Columbia	Vermont
Total Retail Sales (megawatthours)	3,489,222,898	Texas	Vermont
Full Service Sales (megawatthours)	3,258,371,258	Texas	Maine
Deregulated Sales (megawatthours)	230,851,640	California	Virginia
Direct Use (megawatthours)	168,294,526	Texas	District of Columbia
Average Retail Price (cents/kWh)	7.42	Hawaii	Kentucky

Table 2. Ten Largest Plants by Generating Capability, 2003

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
United States			
1. Grand Coulee	Hydro	U S Bureau of Reclamation	7,079
2. Palo Verde	Nuclear	Arizona Public Service Co	3,825
3. W A Parish	Gas, Coal	CenterPoint Energy Houston Electric, LLC	3,653
4. Scherer	Petroleum, Coal	Georgia Power Co	3,430
5. Browns Ferry	Nuclear	Tennessee Valley Authority	3,297
6. Bowen	Petroleum, Coal	Georgia Power Co	3,254
7. Crystal River	Petroleum, Nuclear, Coal	Florida Power Corp	3,140
8. Gibson	Petroleum, Coal	PSI Energy Inc	3,131
9. Monroe	Petroleum, Coal	Detroit Edison Co	3,059
10. John E Amos	Petroleum, Coal	Appalachian Power Co	2,900

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2003

(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
United States						
Florida Power & Light Co	Investor-Owned	99,339,144	53,400,788	41,847,336	3,997,822	93,198
TXU Energy Retail Co LP	Power Marketer	79,049,806	35,535,009	14,801,355	28,623,442	90,000
3. Georgia Power Co	Investor-Owned	75,018,318	21,778,582	27,356,003	25,703,421	180,312
4. Duke Energy Corp	Investor-Owned	73,763,185	24,078,658	24,802,709	24,881,818	0
5. Dominion Virginia Power	Investor-Owned	72,197,013	27,215,660	34,284,489	10,525,192	171,672
Total Sales, Top Five Providers		399,367,466	162,008,697	143,091,892	93,731,695	535,182

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1994, 1998, and 2003 (Megawatts)

				Annual	I	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
nited States							
Electric Utilities	702,229	686,692	547,249	- 2.7	91.9	88.5	57.
Coal	300,941	299,739	236,473	-2.6	39.4	38.6	24.9
Petroleum	41,296	38,144	20,766	-7.4	5.4	4.9	2.:
Natural Gas	51,239	40,764	48,233	7	6.7	5.3	5.
Other Gases	698	55	61	-23.7	.1	*	
Dual Fired.	110,633	114,201	89,183	-2.4	14.5	14.7	9.
Nuclear	99,148	97,070	60,964	-5.3	13.0	12.5	6.
Hydroelectric	74,787	75,525	72,827	3	9.8	9.7	7.
Other Renewables	2,278	2,067	925	-9.5	.3	.3	
Pumped Storage	21,208	18,898	17,803	-1.9	2.8	2.4	1.
Other	0	229	13	NM	.0	*	
Independent Power Producers and Combined							
Heat and Power	61,740	89,174	401,196	23.1	8.1	11.5	42.
Coal	10,474	16,047	76,546	24.7	1.4	2.1	8.
Petroleum	1,399	2,254	15,663	30.8	.2	.3	1.
Natural Gas	19,446	35,008	160,214	26.4	2.5	4.5	16.
Other Gases	1,395	1,465	1,933	3.7	.2	.2	
Dual Fired	12,477	16,197	82,111	23.3	1.6	2.1	8.
Nuclear	0	0	38,244	NM	.0	.0	4.
Hydroelectric	3,255	3,625	5,867	6.8	.4	.5	
Other Renewables	12,744	13,377	17,274	3.4	1.7	1.7	1.
Pumped Storage	0	620	2,719	NM	.0	.1	
Other	550	581	625	1.4	.1	.1	
Total Electric Industry	763,967	775,868	948,446	2.4	100.0	100.0	100.
Coal	311,415	315,786	313,019	.1	40.8	40.7	33.
Petroleum	42,695	40,399	36,429	-1.7	5.6	5.2	3.
Natural Gas	70,685	75,772	208,447	12.8	9.3	9.8	22.
Other Gases	2,093	1,520	1,994	5	.3	.2	
Dual Fired	123,110	130,399	171,295	3.7	16.1	16.8	18.
Nuclear	99,148	97,070	99,209	*	13.0	12.5	10.
Hydroelectric	78,041	79,151	78,694	.1	10.2	10.2	8.
Other Renewables	15,021	15,444	18,199	2.2	2.0	2.0	1.
Pumped Storage	21,208	19,518	20,522	4	2.8	2.5	2.
Other	550	810	638	1.7	.1	.1	

Table 5. Electric Power Industry Generation by Primary Energy Source, 1994, 1998, and 2003 (Megawatthours)

				Annual	P	ercentage Share	
Energy Source	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
nited States							
Electric Utilities	2,910,712,079	3,212,170,791	2,462,280,615	-1.8	89.6	88.7	63.4
Coal.	1,635,492,971	1,807,479,829	1,500,281,112	-1.0	50.4	49.9	38.0
Petroleum	91,038,583	110,157,895	69,930,456	-2.9	2.8	3.0	1.3
Natural Gas	291,114,905	309,222,404	186,966,796	-4.8	9.0	8.5	4.
Other Gases	0	0	242,655	NM	.0	.0	
Nuclear	640,439,832	673,702,104	458,828,821	-3.6	19.7	18.6	11.
Hydroelectric	247,070,938	308,843,770	249,621,996	.1	7.6	8.5	6.
Other Renewables	8,932,675	7,205,997	3,940,660	-8.7	.3	.2	
Pumped Storage	-3,377,825	-4,441,208	-7,531,885	NM	1	1	
Independent Power Producers and Combined							
Heat and Power	336,810,309	408,124,707	1,420,904,591	17.3	10.4	11.3	36.
Coal	55,200,897	66,035,861	473,455,637	27.0	1.7	1.8	12.
Petroleum	14,862,401	18,642,268	49,475,181	14.3	.5	.5	1.
Natural Gas	169,103,778	222,034,704	462,940,742	11.8	5.2	6.1	11.
Other Gases	13,319,049	13,492,228	15,357,365	1.6	.4	.4	
Nuclear	0	0	304,903,874	NM	.0	.0	7.
Hydroelectric	13,054,794	14,491,894	26,184,333	8.0	.4	.4	
Other Renewables	67,602,473	69,882,410	83,469,810	2.4	2.1	1.9	2.
Pumped Storage	0	-26,072	-1,003,180	NM	.0	*	
Other	3,666,926	3,571,410	6,120,827	5.9	.1	.1	
Total Electric Industry	3,247,522,388	3,620,295,498	3,883,185,205	2.0	100.0	100.0	100.
Coal	1,690,693,868	1,873,515,690	1,973,736,749	1.7	52.1	51.8	50.
Petroleum	105,900,984	128,800,163	119,405,637	1.3	3.3	3.6	3.
Natural Gas	460,218,683	531,257,108	649,907,538	3.9	14.2	14.7	16.
Other Gases	13,319,049	13,492,228	15,600,020	1.8	.4	.4	
Nuclear	640,439,832	673,702,104	763,732,695	2.0	19.7	18.6	19.
Hydroelectric	260,125,732	323,335,664	275,806,329	.7	8.0	8.9	7.
Other Renewables	76,535,148	77,088,407	87,410,470	1.5	2.4	2.1	2.
Pumped Storage	-3,377,825	-4,467,280	-8,535,065	NM	1	1	
Other	3,666,926	3,571,410	6,120,827	5.9	.1	.1	

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1994, 1998, and 2003

Fuel, Quality	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
United States				
Coal (cents per million Btu)	135.5	125.2	128.2	-0.6
Average heat value (Btu per pound)	10,338	10,241	10,137	2
Average sulfur Content (percent)	1.2	1.1	1.0	-2.0
Petroleum (cents per million Btu)	242.3	202.1	433.5	6.7
Average heat value (Btu per gallon)	149,324	149,736	147,086	*
Average sulfur Content (percent)	1.2	1.5	1.5	2.5
Natural Gas (cents per million Btu)	223.0	238.1	539.3	10.3
Average heat value (Btu per cubic foot)	1,023	1,022	1,030	.1

Table 7. Electric Power Industry Emissions Estimates, 1994, 1998, and 2003 (Thousand Metric Tons)

Emission Type	1994	1998	2003	Annual Growth Rate 1994-2003 (Percent)
United States				
Sulfur Dioxide				
Coal	13,398	11,402	9,687	-3.5
Petroleum	794	966	718	-1.1
Natural Gas	1	2	2	4.5
Other	279	139	235	-1.9
Total	14,473	12,509	10,643	-3.4
Nitrogen Oxide				
Coal	7,005	5,262	3,679	-6.9
Petroleum	159	230	189	1.9
Gas	513	608	314	-5.3
Other	124	138	145	1.8
Total	7,802	6,235	4,326	-6.3
Carbon Dioxide				
Coal	1,679,301	1,860,572	1,948,054	1.7
Petroleum	103,010	123,326	110,519	.8
Gas	278,189	325,468	343,071	2.4
Geothermal	399	380	367	9
Other	2,889	3,263	13,793	19.0
Total	2,063,788	2.313.013	2,415,804	1.8

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1994, 1998, and 2003

				Annual	Pe	ercentage Sha	re
Sector	1994	1998	2003	Growth Rate 1994-2003 (Percent)	1994	1998	2003
United States							
Retail Sales (thousand megawatthours)							
Residential	1,008,482	1,130,109	1,273,597	2.6	34.4	34.6	36.5
Commercial	820,269	979,401	1,197,199	4.3	27.9	30.0	34.3
Industrial	1,007,981	1,051,203	1,011,617	*	34.3	32.2	29.0
Other	97,830	103,518	NA	NM	3.3	3.2	NA
Transportation	NA	NA	6,810	NM	NA	NA	.2
Total	2,934,563	3,264,231	3,489,223	1.9	100.0	100.0	100.0
Retail Revenue (million dollars)							
Residential	84,552	93,360	110,794	3.0	41.7	42.5	42.8
Commercial	63,396	72,575	95,759	4.7	31.3	33.0	37.0
Industrial	48,069	47,050	51,794	.8	23.7	21.4	20.0
Other	6,689	6,863	NA	NM	3.3	3.1	NA
Transportation	NA	NA	514	NM	NA	NA	.2
Total	202,706	219,848	258,861	2.8	100.0	100.0	100.0
Average Retail Price (cents/kWh)							
Residential	8.38	8.26	8.70	.4	NA	NA	NA
Commercial	7.73	7.41	8.00	.4	NA	NA	NA
Industrial	4.77	4.48	5.12	.8	NA	NA	NA
Other	6.84	6.63	NA	NM	NA	NA	NA
Transportation	NA	NA	7.55	NM	NA	NA	NA
Total	6.91	6.74	7.42	.8	NA	NA	NA

Table 9. Retail Electricity Sales Statistics, 2003

		Full	Service Pro	viders		Other Pr		
Item	Investor- Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	Total
United States								
Number of Entities	222	2,011	9	885	106	150	66	3,449
Number of Retail Customers	96,183,507	19,488,083	39,270	16,149,217	2,742	2,681,529	NA	134,544,348
Retail Sales (thousand megawatthours)	2,352,664	516,475	35,787	333,745	19,700	230,852	NA	3,489,223
Percentage of Retail Sales	67.43	14.80	1.03	9.57	.56	6.62	NA	100.00
Revenue from Retail Sales (million dollars)	175,883	36,165	1,039	23,906	981	13,497	7,390	258,861
Percentage of Revenue	67.95	13.97	.40	9.23	.38	5.21	2.85	100.00
Average Retail Price (cents/kWh)	7.48	7.00	2.90	7.16	4.98	5.85	3.20	7.42

Table 9 Notes: Data are shown for All Sectors. Full Service Providers sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. Other Providers sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

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Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.

^{* =} Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*'.) Totals may not equal sum of components because of independent rounding;

Table A1. Selected Electric Industry Summary Statistics by State, 2003

	Primary	Total Sumr Capacity		Net Generat	ion	Sulfur Di Emissi		Nitrogen Emissi	- 1	Carbon Dio Emission	
State	Fuel Source	(MW)	Rank	(MWh)	Rank	(1000 Metric Tons)	Rank	(1000 Metric Tons)	Rank	(1000 Metric Tons)	Rank
Alabama	Coal	30,162	10	137,487,223	8	453	9	152	8	80,325	9
Alaska	Gas	1,895	48	6,338,732	48	5	48	8	47	3,944	46
Arizona	Coal	23,510	15	94,396,217	16	63	31	80	22	46,655	20
Arkansas	Coal	13,549	27	50,401,101	27	79	29	46	34	27,220	32
California	Gas	57,850	2	192,788,544	4	17	42	60	31	55,855	16
Colorado	Coal	10,370	32	46,616,788	30	70	30	71	26	40,599	24
Connecticut	Nuclear	7,573	34	29,545,050	40	8	46	11	45	9,534	40
Delaware	Coal	3,392	44	7,392,288	47	36	37	13	41	6,996	45
District of Columbia	Petroleum	806	51	74,144	51	*	50	*	51	82	50
Florida	Gas	49,419	3	212,610,010	2	468	8	257	2	128,796	2
Georgia	Coal	34,815	7	124,076,834	11	586	5	121	14	79,356	10
Hawaii		2,268	47	10,976,371	44	23	39	13	42	8,545	42
Idaho	Hydro	3,002	45	10,422,937	45	6	47	3	48	1,103	49
Illinois	Nuclear	45,541	4	189,055,258	5	372	11	144	9	94,941	6
Indiana	Coal	25,641	14	124,888,218	10	744	3	248	4	116,590	5
Iowa	Coal	10,074	33	42,116,191	33	139	21	78	24	40,616	23
Kansas	Coal	10,876	31	46,567,560	31	128	23	86	19	38,463	26
Kentucky	Coal	19,068	20	91,718,820	19	483	7	169	7	85,573	8
Louisiana		25,749	13	94,885,041	14	194	20	96	15	55,863	15
Maine	Gas	4,285	42	18,971,638	43	20	41	11	44	7,662	43
Maryland	Coal	12,472	29	52,244,238	26	264	14	69	29	32,632	29
Massachusetts	Gas	13,877	26	48,385,024	29	82	28	33	37	27,197	33
Michigan	Coal	30,450	9	111,347,059	12	364	12	130	12	73,278	12
Minnesota	Coal	11,485	30	55,050,997	25	113	24	94	16	39,637	25
Mississippi	Coal	17,282	23	40,148,279	34	86	26	47	32	23,428	34
Missouri	Coal	19,977	19	87,225,088	20	258	16	136	11	75,640	11
Montana	Coal	5,210	40	26,268,727	41	23	40	37	36	18,659	38
Nebraska		6,684	36	30,455,984	39	63	32	46	33	21,376	36
Nevada	Coal	7,508	35	33,194,889	36	47	35	40	35	22,982	35
New Hampshire	Nuclear	4,244	43	21,597,105	42	52	33	10	46	7,600	44
New Jersey		18,647	21	57,399,351	24	49	34	32	38	20,194	37
New Mexico	Coal	6,288	38	32,735,653	37	46	36	71	27	31,158	31
New York	Nuclear	36,696	6	137,643,315	7	259	15	81	21	56,944	14
North Carolina	Coal	27,263	12	127,582,318	9	450	10	138	10	71,977	13
North Dakota		4,663	41	31,322,129	38	128	22	70	28	31,770	30
Ohio		34,060	8	146,638,129	6	1141	1	335	1	127,703	3
Oklahoma		18,238	22	60,626,856	22	110	25	86	18	48,521	18
Oregon		12,883	28	48,966,138	28	13	44	12	43	8,765	41
Pennsylvania		42,368	5	206,349,516	3	912	2	177	6	119,184	4
Rhode Island		1,734	49	5,621,146	50	1	49	1	49	2,398	48
South Carolina		20,659	18	93,772,678	17	207	19	78	25	36,658	27
South Dakota		2,690	46	7,943,837	46	12	45	15	40	3,649	47
Tennessee	······	20,893	17	92,221,791	18	344	13	129	13	55,820	17
Texas		99,594	1	379,199,685	1	614	4	252	3	254,955	1
Utah		5,797	39	38,023,666	35	32	38	68	30	34,423	28
Vermont		997	50	6,027,961	49	*	51	*	50	25	51
Virginia		21,258	16	75,309,421	21	237	17	79	23	46,125	21
Washington		27,689	11	100,094,691	13	16	43	26	39	14,984	39
West Virginia		16,124	24	94,711,553	15	508	6	194	5	85,676	7
Wisconsin		14,309	25	60,122,425	23	232	18	94	17	48,410	19
Wyoming		6,562	37	43,626,602	32	84	27	81	20	45,319	22
		0,302	31	13,020,002	22	04	21	01	20	73,317	22

Table A1. Selected Electric Industry Summary Statistics by State, 2003 (Continued)

State	Total Retail Sales		Full Service Sales (including unregulated generators)		Energy Service Providers		Direct Use		All Sectors Average Retail Price	
	(MWh)	Rank	(MWh)	Rank	(MWh)	Rank	(MWh)	Rank	(cents/kWh)	Rank
Alabama	83,844,220	15	83,844,220	15	0	0	6,481,099	5	5.88	40
Alaska	5,563,682	50	5,563,682	49	0	0	1,077,994	30	10.50	7
Arizona	64,079,560	23	64,079,560	22	0	0	373,797	39	7.34	17
Arkansas	43,108,259	30	43,108,259	30	0	0	2,393,069	20	5.57	44
California	238,709,728	2	172,746,724	3	65,963,004	1	15,183,496	3	11.62	3
Colorado	46,494,645	27	46,494,645	26	0	0	495,263	35	6.77	24
Connecticut	31,830,218	33	31,230,118	33	600,100	16	1,539,033	24	10.16	9
Delaware	12,599,590	42	10,488,250	42	2,111,340	13	563,430	34	6.96	19
District of Columbia	10,946,383	45	5,725,475	48	5,220,908	11	384	50	7.40	16
Florida	217,378,622	3	217,378,622	2	0	0	6,902,953	4	7.72	14
Georgia	123,676,657	8	123,676,657	6	0	0	5,556,906	6	6.32	32
Hawaii	10,390,836	47	10,390,836	44	0	0	480,116	36	14.47	1
daho	21,218,685	38	21,218,685	38	0	0	710,470	31	5.22	48
Ilinois	136,247,891	7	115,070,513	8	21,177,378	4	4,275,912	10	6.86	21
ndiana	100,467,779	12	100,467,779	10	0	0	4,755,661	7	5.37	47
lowa	41,207,284	31	41,207,284	31	0	0	1,350,833	27	6.11	36
Kansas	36,735,390	32	36,735,390	32	0	0	62,101	49	6.35	30
Kentucky	85,219,631	14	85,219,631	14	0	0	188,286	43	4.42	51
Louisiana	77,769,322	17	77,769,322	16	0	0	22,048,053	2	6.93	20
Maine	11,971,837	43	768,781	51	11,203,056	7	4,367,847	9	9.79	10
Maryland	71,258,583	21	59,692,937	24	11,565,646	6	1,197,044	28	6.45	28
Massachusetts	55,514,357	25	45,775,113	27	9,739,244	9	2,452,982	18	10.56	6
Michigan	108,877,193	10	98,765,181	12	10,112,012	8	2,919,243	16	6.85	23
Minnesota	63,087,339	24	63,087,339	23	0	0	2,928,218	15	6.01	39
Mississippi	45,543,881	28	45,543,881	28	0	0	2,382,755	21	6.46	27
Missouri	74,239,888	20	74,239,888	19	0	0	304,828	41	6.02	38
Montana	12,824,660	41	10,282,211	45	2,542,449	12	155,230	45	6.14	35
Nebraska	25,856,566	36	25,856,566	36	0	0	72,037	46	5.64	43
Nevada	30,131,660	34	30,131,660	34	0	0	232,260	42	8.29	12
New Hampshire	10,972,542	44	10,824,276	41	148,266	17	455,577	37	10.83	5
New Jersey	76,382,512	19	69,668,164	20	6,714,348	10	2,404,390	19	9.48	11
New Mexico	19,330,491	39	19,330,491	39	0	0	445,381	38	7.00	18
New York	144,044,703	5	100,387,510	11	43,657,193	2	4,216,899	11	12.44	2
North Carolina	121,335,121	9	121,335,121	7	0	0	4.091.493	12	6.86	22
North Dakota	10,461,108	46	10,461,108	43	0	0	166,558	44	5.47	45
Ohio	152,189,238	4	127,249,081	5	24,940,157	3	1,486,344	25	6.73	25
Oklahoma	50,428,168	26	50,428,168	25	0	0	1,152,560	29	6.35	31
Oregon	45,194,730	29	45,194,730	29	0	0	690,673	32	6.18	34
Pennsylvania	140,369,128	6	127,963,731	4	12,405,397	5	4,478,416	8	8.02	13
Rhode Island	7,796,626	49	7,096,649	47	699,977	15	64,968	48	10.47	8
South Carolina	77.054.098	18	77,054,098	17	0	0	2,041,837	22	6.08	37
South Dakota	9.079.990	48	9.079.990	46	0	0	0	0	6.35	29
Tennessee	97,455,808	13	97,455,808	13	0	0	3,389,262	13	5.84	42
Texas	322,685,955	1	322,685,955	1	0	0	41,705,982	1	7.50	15
Jtah	23,860,350	37	23,860,350	37	0	0	360,206	40	5.41	46
Vermont	5,352,429	51	5,352,429	50	0	0	70,908	47	10.98	4
Virginia	101,509,731	11	101,479,128	9	30,603	18	2,995,409	14	6.27	33
Washington	78,133,501	16	76,112,939	18	2,020,562	14	1,392,566	26	5.86	41
West Virginia	28,296,993	35	28,296,993	35	0	0	1,816,264	23	5.13	49
Wisconsin	67.241.494	22	67.241.494	21	0	0	2,755,932	17	6.64	26
1000113111	01,441,424	40	13,253,836	40	0	0	661,603	33	4.76	50