Section L

Energy and Utilities

Information on energy production and utilization in New York State — including electricity generation; energy usage and demand; oil and gas production; and nuclear power generation.

Highlights

- Nearly 454 trillion BTUs of energy were produced in New York in 2004.
- Over 4,000 trillion BTUs of energy were consumed in 2004, nearly nine times as much energy as New York produced.
- New Yorkers paid nearly $47 billion for all types of energy in 2004, 16 percent more than in 2000.
- Petroleum products provided 45 percent of the energy consumed in New York in 2004, followed by natural gas at 25 percent.
- New York has six of the nation's 104 nuclear power plants, and they supplied 9 percent of the State's energy consumption in 2003.

Figures

Glossary

TABLE L-1

Electric Energy Production — 2000-03
Net Summer Capacity — 2000 and 2003(a)
United States by State

State	Net Generation (billion kWh)				Net Summer Capacity (million kWh)	
	2000(r)	2001	2002	2003	2000	2003
United States	3,802.1	3,736.6	3,858.5	3,883.2	809.4	948.4
Alabama	124.4	125.3	132.9	137.5	23.5	30.2
Alaska	6.2	6.7	6.8	6.3	2.1	1.9
Arizona	88.9	89.9	94.1	94.4	15.3	23.5
Arkansas	43.9	47.2	47.6	50.4	9.7	13.5
California	208.1	198.6	184.2	192.8	51.9	57.9
Colorado	44.2	46.9	45.6	46.6	8.4	10.4
Connecticut	33.0	30.5	31.3	29.5	6.4	7.6
Delaware	6.0	6.8	6.0	7.4	2.1	3.4
District of Columbia	0.1	0.1	0.3	0.1	0.8	0.8
Florida	191.8	190.9	203.4	212.6	41.5	49.4
Georgia	123.9	118.3	126.5	124.1	27.8	34.8
Hawaii	10.6	10.6	11.7	11.0	2.4	2.3
Idaho	11.9	9.3	9.8	10.4	3.0	3.0
Illinois	178.5	179.2	188.1	189.1	36.3	45.5
Indiana	127.8	122.6	125.6	124.9	23.3	25.6
Iowa	41.5	40.7	42.5	42.1	9.1	10.1
Kansas	44.8	44.7	47.2	46.6	10.1	10.9
Kentucky	93.0	95.4	92.1	91.7	16.8	19.1
Louisiana	92.9	87.9	95.0	94.9	21.0	25.7
Maine	14.0	19.6	22.5	19.0	4.2	4.3
Maryland	51.1	49.1	48.3	52.2	10.4	12.5
Massachusetts	38.7	38.5	42.0	48.4	12.4	13.9
Michigan	104.2	111.8	117.9	111.3	25.8	30.4
Minnesota	51.4	48.5	52.8	55.1	10.3	11.5
Mississippi	37.6	53.4	42.9	40.1	9.0	17.3
Missouri	76.6	79.5	81.2	87.2	17.3	20.0
Montana	26.5	24.2	25.5	26.3	5.2	5.2
Nebraska	29.1	30.5	31.6	30.5	6.0	6.7
Nevada	35.5	33.9	32.1	33.2	6.7	7.5
New Hampshire	15.0	15.1	16.0	21.6	2.9	4.2
New Jersey	58.1	59.4	61.6	57.4	16.5	18.6
New Mexico	34.0	33.6	30.7	32.7	5.6	6.3
New York	138.1	143.9	139.6	137.6	35.6	36.7
North Carolina	122.3	117.5	124.5	127.6	24.5	27.3
North Dakota	31.3	30.3	31.3	31.3	4.7	4.7
Ohio	149.1	142.3	147.1	146.6	28.4	34.1
Oklahoma	55.6	55.2	59.2	60.6	14.1	18.2
Oregon	51.8	45.1	47.1	49.0	11.3	12.9
Pennsylvania	201.7	196.6	204.3	206.3	36.7	42.4
Rhode Island	6.0	7.5	7.1	5.6	1.2	1.7
South Carolina	93.3	89.2	96.6	93.8	18.7	20.7
South Dakota	9.7	7.4	7.7	7.9	2.8	2.7
Tennessee	95.8	96.2	96.1	92.2	19.5	20.9
Texas	377.7	372.6	385.6	379.2	81.7	99.6
Utah	36.6	35.9	36.6	38.0	5.2	5.8
Vermont	6.3	5.5	5.5	6.0	1.0	1.0
Virginia	77.2	74.1	75.0	75.3	19.4	21.3
Washington	108.2	83.0	102.8	100.1	26.1	27.7
West Virginia	92.9	81.8	94.8	94.7	15.0	16.1
Wisconsin	59.6	58.8	58.4	60.1	13.6	14.3
Wyoming	45.5	44.8	43.8	43.6	6.2	6.6

NOTE: Detail may not add to totals due to rounding.

See Glossary on page 520 for explanation of abbreviations.

r Revised.

a As of December 31 of each year. Covers utilities for public use.

SOURCE: *Statistical Abstract of the United States, 2006*, www.census.gov/prod/2005pubs/06statab/energy.pdf (last viewed July 25, 2006); United States Energy Information Administration, *Electric Power Annual 2003*.

TABLE L-2

Production of Primary Energy Resources
New York State — 1990-2004

	Hydro Electricity[1]		Natural Gas		Crude Oil		Biofuel[2]	Total Energy Production
Year	TBtu	GWh	TBtu	Bcf	TBtu	Mbbl	TBtu	TBtu
1990r	282.2	27,134	25.9	25.1	2.4	417	104.7	415.2
1991r	273.1	26,165	24.1	23.4	2.5	426	102.9	402.6
1992r	279.5	27,025	24.3	23.6	2.4	406	113.0	419.2
1993r	291.8	28,308	22.5	21.9	2.0	341	114.6	430.9
1994r	274.9	26,645	22.2	21.6	1.7	299	122.1	420.9
1995r	256.1	24,831	19.8	19.3	1.8	304	130.2	407.9
1996r	287.5	27,805	18.7	18.2	1.8	309	144.6	452.6
1997r	301.5	29,525	16.6	16.2	1.6	276	174.9	494.6
1998r	287.1	28,158	17.1	16.6	1.3	217	158.9	464.4
1999r	241.8	23,643	17.3	16.8	1.1	193	168.5	428.8
2000r	244.0	23,919	18.3	17.8	1.0	181	174.6	437.9
2001r	225.4	22,153	28.7	28.0	1.1	183	152.4	407.6
2002r	222.8	24,127	38.1	37.1	1.0	179	134.9	396.7
2003r	218.8	23,357	36.9	36.0	0.9	157	144.7	401.4
2004	267.7	27,515	48.1	46.9	1.1	184	137.1	453.9

NOTE: See Glossary on page 520 for explanation of abbreviations.

r Revised.

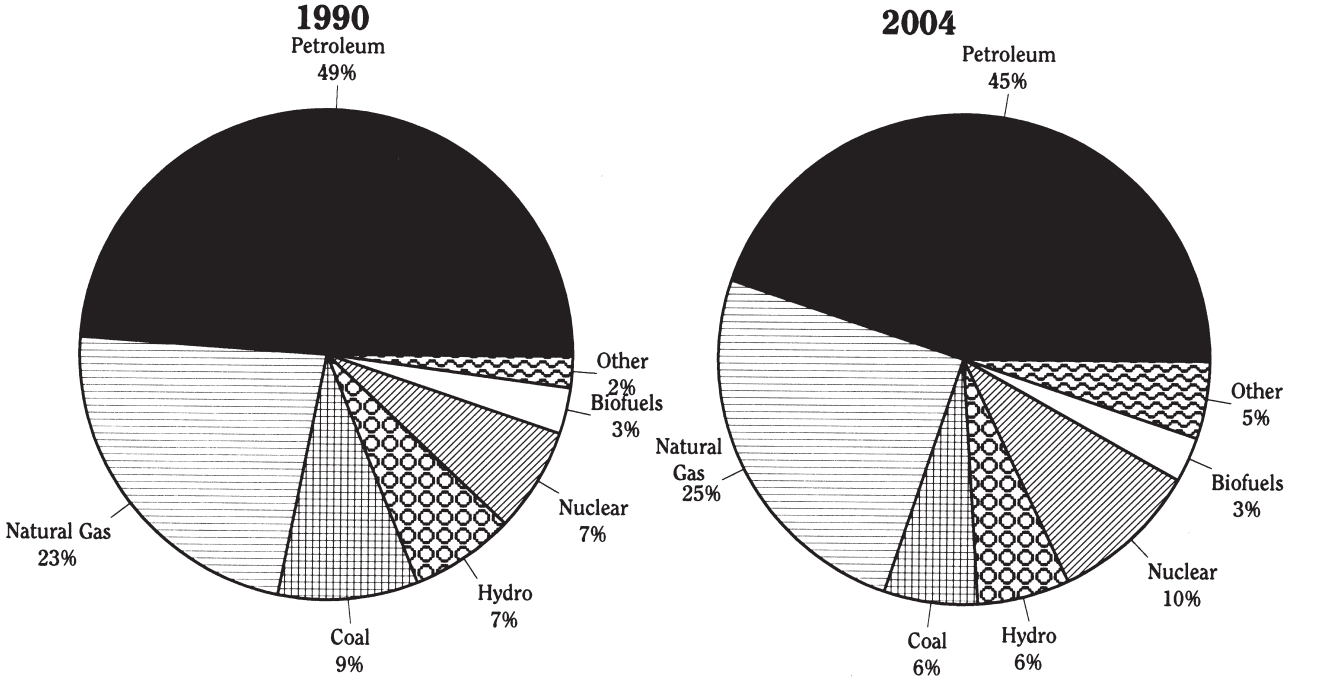
1 Utility and nonutility owned hydroelectric generation facilities.

2 Includes primarily wood, wastes and ethanol.

SOURCE: New York State Department of Environmental Conservation; material compiled by New York State Energy Research and Development Authority.

FIGURE L-1

Primary Consumption of Energy by Type of Fuel
New York State — 1990 and 2004



SOURCE: New York State Energy Research and Development Authority.

TABLE L-3

Oil and Gas Production
New York State — 1966-2004

Year	Production		Number of Wells					
					Shut-In			
	Oil (Mbbls)	Gas (MMcf)	Oil	Gas	Oil and Gas	Storage	P & A[1]	Water Injection
1966	1,728	2,699	7,300	1,164	4,500	450	NA	
1967	1,972	2,230	7,000	1,159	4,600	500	NA	
1968	1,532	2,969	6,400	1,111	4,450	650	NA	
1969	1,256	4,278	5,800	820	1,009	721	NA	
1970	1,193	3,093	5,600	600	1,350	732	NA	
1971	1,097	2,202	5,552	628	1,567	729	418	
1972	1,018	3,362	5,528	750	1,619	734	573	
1973	969	4,588	5,288	789	1,484	736	544	
1974	896	4,918	5,513	1,061	1,862	735	622	
1975	875	7,483	5,231	1,111	1,883	765	553	
					Shut-In			
					Oil	Gas		
1976	857	9,200	5,016	1,195	1,393	432	764	442	
1977	824	10,700	4,913	1,467	1,528	292	764	455	
1978	852	13,900	5,039	1,452e	1,512e	352e	763	352	
1979	855	15,500	5,100	1,620e	1,500e	520e	763	117	2,500e
1980	824	15,650	5,220	2,076	1,400e	500e	765	119	3,500e
1981r	869	19,000	5,176	2,636	1,402	726	822	184	3,038a
1982r	831	18,760	5,272	2,969	1,308	996	831	262	2,924e
1983r	902	20,380	4,705	3,489	1,436	995	839	90	2,093
1984r	952	27,000	4,584	4,279	1,475	821	839	182	1,811
1985r	1,071	33,061	4,814	4,794	1,614	891	841	269	2,037
1986r	853	34,796	4,448	5,088	1,677	791	836	471	1,658
1987r	710	29,549	4,228	5,351	1,582	961	845	417	1,376
1988r	567	28,125	4,368	5,328	1,478	870	854	322	1,382
1989r	496	25,673	4,043	5,411	1,775	845	845	260	1,196
1990r	417	25,112	3,906	5,536	1,752	955	854	961	1,274
1991r	426	23,438	3,619	5,757	1,362	707	869	376	875
1992r	406	23,586	3,761	5,866	939	563	865	244	835
1993r	341	22,145	3,783	5,986	1,137	505	865	263	859
1994r	299	21,537	3,670	6,017	1,326	561	876	234	923
1995r	304	18,799	3,208	6,216	1,108	665	866	191	783
1996r	309	18,238	3,438	5,894	1,648	564	868	184	668
1997r	276	16,194	3,446	5,739	1,265	709	867	141	554
1998r	217	16,607	3,739	5,903	1,590	579	885b	169	471
1999r	193	16,836	3,463	5,756	1,165	583	885b	138	223
2000r	181	17,752	2,802	5,747	1,314	843	870b	131	627
2001r	183	27,947	3,072	5,916	1,223	835	892b	131	553
2002e	179	36,814	3,096	5,752	1,341	925	920b	125	434
2003	164	36,017	2,978	5,827	1,653	905	922b	141	238
2004	184	46,948	3,153	6,076	1,640	886	908b	142	656

NOTE: See Glossary on page 520 for explanation of abbreviations.

r Revised.

e Estimated.

NA Not available.

a Active injection wells.

b Includes LPG storage wells.

1 Plugged and abandoned during the year.

SOURCE: New York State Department of Environmental Conservation, Division of Mineral Resources.

TABLE L-4

Primary Consumption of Energy by Type of Fuel
New York State — 1990-2004

	Coal		Natural Gas		Petroleum Products		Hydro	
Year	TBtu	MTons	TBtu	Bcf	TBtu	Mbbl	TBtu	GWh
1990	308.2	13,597	895.4	869	1,907.1	338,180	282.2	27,134
1991r	309.8	13,641	917.2	892	1,770.8	315,496	273.1	26,165
1992	308.9	13,760	1,034.0	1,005	1,667.7	298,609	279.5	27,025
1993	285.9	12,651	1,023.2	944	1,660.9	297,647	291.8	28,308
1994	275.5	12,231	1,095.6	1,066	1,595.5	287,262	274.9	26,645
1995r	264.3	11,785	1,295.4	1,260	1,547.3	280,623	256.1	24,831
1996r	269.5	12,074	1,230.8	1,200	1,591.6	287,810	287.5	27,805
1997r	278.3	12,522	1,358.1	1,324	1,548.3	280,835	301.5	29,525
1998r	286.9	12,952	1,267.1	1,233	1,549.9	280,961	287.1	28,158
1999r	270.7	12,187	1,308.7	1,274	1,603.8	290,502	241.8	23,643
2000r	279.9	12,612	1,279.7	1,275	1,697.1	306,903	244.0	23,919
2001r	266.2	12,036	1,205.9	1,172	1,665.1	300,797	225.4	22,153
2002r	240.8	11,861	1,224.3	1,190	1,591.1	289,027	222.8	24,127
2003r	247.6	12,291	1,128.2	1,092	1,776.5	319,967	218.8	23,357
2004	257.9	12,877	1,001.3	971	1,814.8	325,855	267.7	27,515

	Nuclear		Net Imported Electricity		Biofuels[1]	Total[2]
Year	TBtu	GWh	TBtu	GWh	TBtu	TBtu
1990r	250.0	23,623	54.5	5,573	104.7	3,802.1
1991r	298.3	28,448	100.2	10,419	102.9	3,772.3
1992r	252.9	24,155	167.5	17,482	113.0	3,823.6
1993r	282.4	26,889	212.8	22,688	114.6	3,871.5
1994r	305.5	29,231	205.1	21,747	122.1	3,874.3
1995	276.7	26,336	137.6	15,016	130.2	3,907.7
1996	370.0	35,226	115.1	12,795	144.6	4,009.1
1997r	310.3	29,570	72.8	8,064	174.9	4,044.2
1998r	328.5	31,314	59.1	6,514	158.9	3,937.5
1999r	386.8	37,019	93.9	10,071	168.5	4,074.2
2000r	328.6	31,508	170.7	18,557	174.6	4,174.7
2001r	422.0	40,395	119.2	12,872	152.4	4,056.3
2002r	365.8	39,617	176.8	19,153	134.8	3,956.4
2003r	381.1	40,679	190.9	20,371	144.6	4,087.8
2004	395.4	40,640	183.3	18,845	137.0	4,057.4

NOTE: TBtu totals may not equal to the sum of components due to rounding.

See Glossary on page 520 for explanation of abbreviations.

r Revised.

1 Includes primary wood, waste and ethanol.

2 Excludes nonfuel uses and steam.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-5

Primary Consumption of Refined Petroleum Products by Type of Product
New York State — 1990-2004

	Distillate		Residual		Kerosene	
Year	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
1990r	429.9	73,803	485.6	77,242	12.9	2,283
1991r	396.5	68,062	426.0	67,751	15.0	2,646
1992	423.7	72,742	322.4	51,283	10.6	1,861
1993r	424.6	72,900	300.7	47,823	13.7	2,422
1994	426.5	73,218	252.3	40,125	13.0	2,289
1995r	409.8	70,349	189.4	30,127	13.4	2,363
1996r	418.9	71,914	230.3	36,628	16.3	2,883
1997r	413.8	71,033	188.6	29,992	16.5	2,906
1998r	375.8	64,515	224.6	35,732	19.0	3,358
1999r	419.2	71,969	222.3	35,352	17.5	3,086
2000r	460.4	79,038	266.2	42,349	19.5	3,443
2001r	482.8	82,878	233.2	37,090	19.5	3,445
2002r	446.7	76,684	195.6	31,110	13.5	2,373
2003r	507.6	87,134	302.4	48,105	18.1	3,195
2004	510.8	87,683	328.9	52,319	18.0	3,183

	LPG[1,2]		Motor Gasoline		Aviation Fuels[3]		Total[2]	
Year	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
1990r	20.3	5,606	731.1	139,180	227.2	40,066	1,907.1	338,180
1991r	26.0	7,207	700.3	133,311	207.1	36,519	1,700.8	315,496
1992r	25.6	7,077	678.0	129,064	207.4	36,582	1,667.7	298,609
1993r	22.1	6,139	691.9	131,710	207.8	36,653	1,660.9	297,647
1994r	23.1	6,352	670.6	128,228	210.1	37,050	1,595.5	287,262
1995r	22.9	6,332	691.6	132,627	220.1	38,825	1,547.3	280,623
1996r	25.6	7,073	683.2	130,979	217.3	38,333	1,591.6	287,810
1997r	24.2	6,687	682.5	130,923	222.8	39,294	1,548.3	280,835
1998r	26.4	7,306	685.2	131,469	218.8	38,581	1,549.9	280,961
1999r	26.5	7,316	696.3	133,621	222.0	39,158	1,603.8	290,502
2000r	35.5	9,849	692.0	132,831	223.4	39,393	1,697.1	306,903
2001r	25.7	7,111	696.7	133,724	207.2	36,549	1,665.1	300,797
2002r	27.5	7,612	711.7	136,664	196.1	34,584	1,591.1	289,027
2003r	30.0	8,269	720.5	138,371	197.8	34,894	1,776.5	319,967
2004	31.6	8,244	714.2	137,170	211.2	37,257	1,814.8	325,855

NOTE: TBtu totals may not equal to the sum of components due to rounding.

See Glossary on page 520 for explanation of abbreviations.

r Revised.

1 Propane.

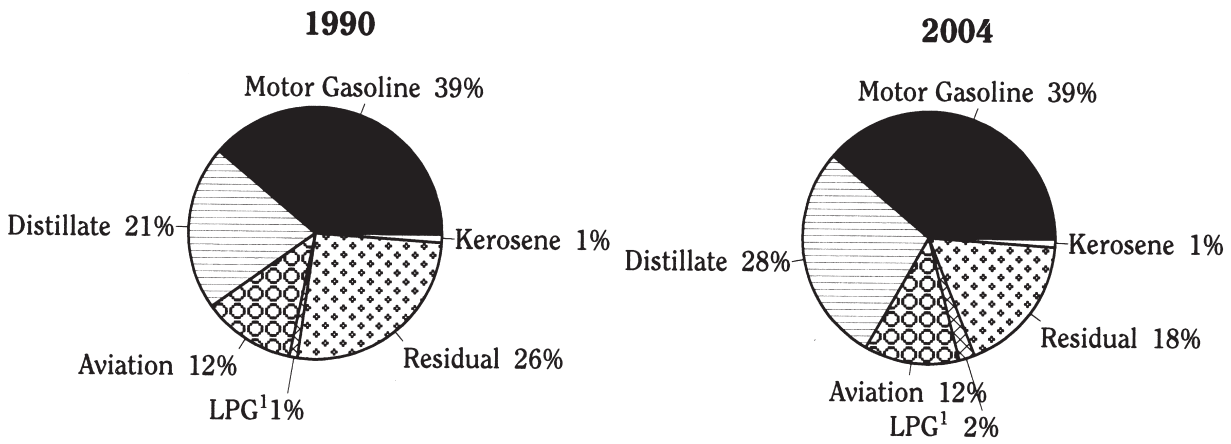
2 Excludes nonfuel uses.

3 Kerosene-type jet fuel and aviation gasoline.

SOURCE: New York State Energy Research and Development Authority.

FIGURE L-2

Primary Consumption of Refined Petroleum Products by Type of Product
New York State — 1990 and 2004



1 Propane.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-6

Primary Consumption of Energy for Electric Generation by Type of Fuel New York State — 1990-2004

					Petroleum Products					
	Coal		Natural Gas		Distillate		Residual		Total	
Year	TBtu	MTons	TBtu	Bcf	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
1990r	218.8	10,528	244.0	236	6.4	1,095	338.2	53,800	344.6	54,895
1991r	220.8	10,642	244.1	237	5.7	982	279.3	44,432	285.1	45,414
1992r	230.8	11,146	279.4	272	2.9	499	181.0	28,786	183.9	29,285
1993r	204.1	9,872	268.3	261	5.3	903	147.4	23,444	152.7	24,347
1994r	195.8	9,512	316.0	307	13.4	2,300	111.8	17,786	125.2	20,086
1995r	186.4	9,076	456.4	446	9.5	1,627	77.1	12,264	86.6	13,891
1996r	190.0	9,245	337.1	329	7.4	1,268	93.9	14,940	101.3	16,208
1997r	199.3	9,713	423.6	414	9.1	1,568	80.6	12,813	89.7	14,381
1998r	208.1	10,143	388.9	379	8.1	1,390	145.1	23,075	153.2	24,465
1999r	194.5	9,493	437.1	427	12.9	2,207	126.1	20,053	138.9	22,260
2000r	203.8	9,938	372.3	365	13.7	2,352	143.3	22,789	157.0	25,141
2001r	192.2	9,451	360.6	352	17.5	3,010	158.1	25,146	175.6	28,156
2002r	187.9	9,283	366.8	360	13.0	2,229	108.4	17,244	121.4	19,473
2003r	194.5	9,687	265.5	259	9.6	1,640	195.9	31,166	205.5	32,806
2004	205.7	10,302	259.4	253	10.3	1,774	211.9	33,702	222.2	35,476

	Hydro		Nuclear		Net Imported Electricity		Biofuels[1]		Total[2]
Year	TBtu	GWh	TBtu	GWh	TBtu	GWh	TBtu	GWh	TBtu
1990r	282.2	27,134	250.0	23,623	54.5	5,573	28.4	2,066	1,422.5
1991r	273.1	26,165	298.3	28,448	100.2	10,419	29.8	2,033	1,451.2
1992r	279.5	27,025	252.9	24,155	167.5	17,482	37.7	2,320	1,431.7
1993r	291.8	28,308	282.4	26,889	212.8	22,688	34.9	2,374	1,446.9
1994r	274.9	26,645	305.5	29,231	205.1	21,747	40.1	2,602	1,462.7
1995r	256.1	24,831	276.7	26,336	137.6	15,016	38.7	2,632	1,438.5
1996r	287.5	27,805	370.0	35,226	115.1	12,795	41.2	2,863	1,442.2
1997r	301.5	29,525	310.3	29,570	72.8	8,064	41.4	2,809	1,438.6
1998r	287.1	28,158	328.5	31,314	59.1	6,514	39.6	2,754	1,464.5
1999r	241.8	23,643	386.8	37,019	93.9	10,071	41.4	2,950	1,534.4
2000r	244.0	23,919	328.6	31,508	170.7	18,557	41.4	2,968	1,517.9
2001r	225.4	22,153	422.0	40,395	119.2	12,872	40.1	2,725	1,535.2
2002r	222.8	24,127	365.8	39,617	176.8	19,153	32.5	2,623	1,473.9
2003r	218.8	23,357	381.1	40,679	190.9	20,371	31.5	2,578	1,487.9
2004	267.7	27,515	395.4	40,640	183.3	18,845	30.9	2,557	1,564.6

NOTE: TBtu totals may not equal to the sum of components due to rounding.

See glossary on page 520 for explanation of abbreviations.

r Revised.

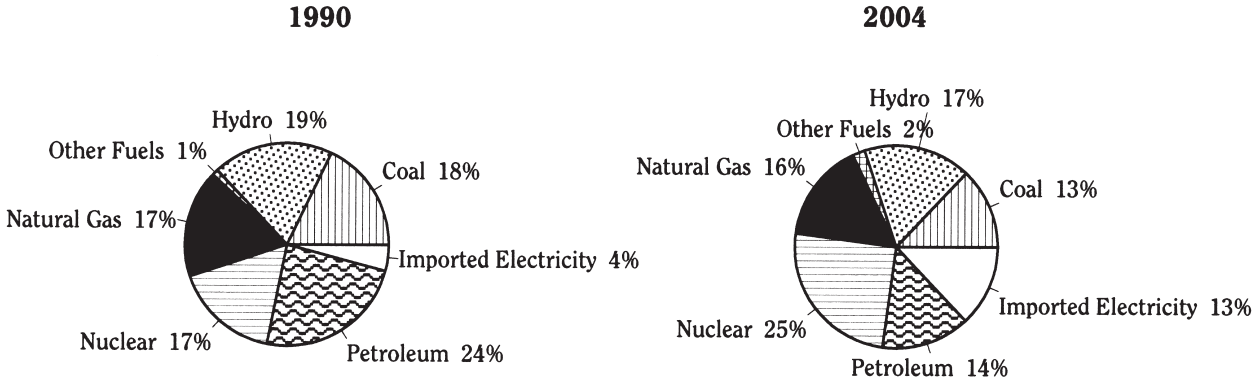
1 Includes renewable and indigenous fuels used by generators.

2 Excludes utility consumption of fuels used in the production of steam distributed for space heating.

SOURCE: New York State Energy Research and Development Authority.

FIGURE L-3

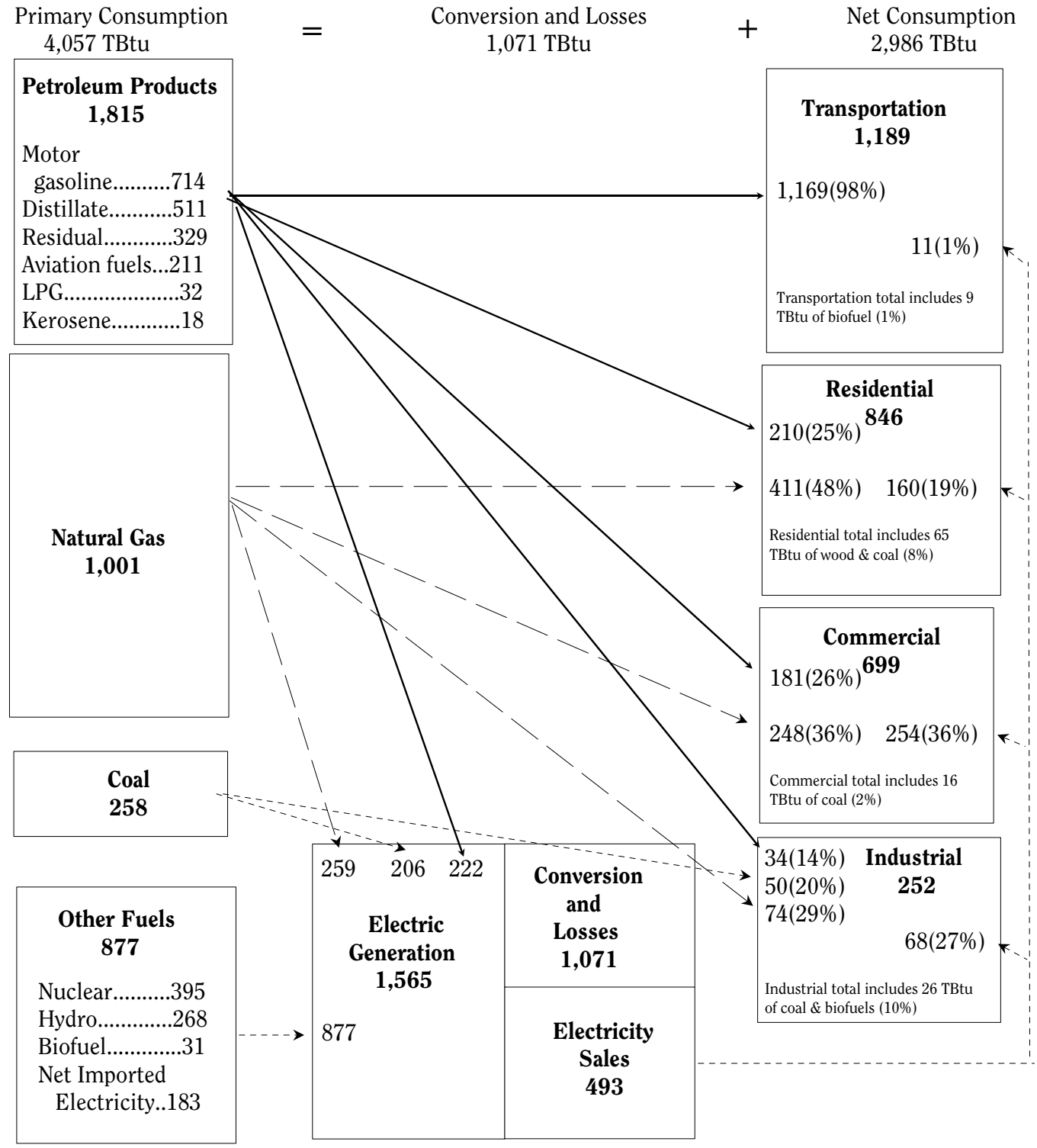
Primary Consumption of Energy by the Electric Utility Sector by Type of Fuel New York State — 1990 and 2004



SOURCE: New York State Energy Research and Development Authority.

FIGURE L-4

Energy Flow
New York State — 2004



SOURCE: New York State Energy Research and Development Authority

TABLE L-7

Net Consumption of Energy by the Residential Sector
New York State — 1990-2004

					Petroleum Products			
	Coal		Natural Gas		Distillate		Kerosene	
Year	TBtu	MTons	TBtu	Bcf	TBtu	Mbbl	TBtu	Mbbl
1990r	1.4	55	347.9	338	183.6	31,520	10.0	1,765
1991r	1.3	50	348.1	339	168.7	28,963	11.9	2,098
1992r	1.2	50	389.8	379	189.6	32,553	7.1	1,252
1993r	1.0	42	395.5	384	178.3	30,618	8.9	1,565
1994r	0.7	28	396.3	385	173.4	29,769	7.9	1,396
1995r	0.7	29	386.7	375	166.7	28,624	7.0	1,240
1996r	0.8	34	414.4	403	176.1	30,240	8.2	1,450
1997r	0.7	28	385.7	376	171.1	29,367	9.9	1,744
1998r	0.4	16	349.6	340	155.2	26,637	10.6	1,866
1999r	0.6	22	381.3	371	165.1	28,347	13.2	2,327
2000r	0.3	11	413.1	400	205.2	35,229	13.3	2,344
2001r	0.3	12	388.7	376	212.6	36,502	13.6	2,390
2002r	0.3	13	380.3	370	191.6	32,893	9.3	1,642
2003r	0.3	13	426.4	413	188.1	32,293	9.3	1,639
2004	0.3	13	411.1	399	174.9	30,020	11.7	2,065

	Petroleum Products (continued)								
	LPG[1]		Total		Wood		Electricity		Total
Year	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mcords	TBtu	GWh	TBtu
1990r	14.8	4,079	208.4	37,364	46.5	2,325	131.6	38,574	735.8
1991r	18.3	5,051	198.9	36,112	49.0	2,450	133.7	39,177	730.9
1992r	18.0	4,965	214.7	38,770	51.5	2,577	132.1	38,720	789.4
1993r	15.5	4,293	202.7	36,476	55.2	2,758	136.1	39,897	790.5
1994r	15.8	4,350	197.1	35,515	54.1	2,704	136.8	40,105	785.0
1995r	16.4	4,516	190.1	34,380	60.0	3,001	136.1	39,887	773.6
1996r	17.8	4,937	202.2	36,627	59.9	2,996	137.5	40,285	814.8
1997r	15.8	4,379	196.8	35,490	84.0	4,202	136.7	40,059	803.9
1998r	15.6	4,323	181.4	32,826	76.1	3,804	138.4	40,563	745.8
1999r	17.0	4,691	195.3	35,365	81.3	4,067	146.4	42,919	805.0
2000r	22.4	6,211	240.9	43,784	85.2	4,258	146.8	43,018	886.2
2001r	17.0	4,698	243.2	43,590	72.7	3,636	150.3	44,048	855.2
2002r	19.7	5,411	220.6	39,976	61.8	3,091	157.7	46,234	820.7
2003r	19.8	5,463	217.2	39,395	71.1	3,554	160.8	47,116	875.7
2004	22.6	5,893	209.2	37,978	65.4	3,270	160.3	46,969	846.2

NOTE: TBtu totals may not equal to the sum of components due to rounding.

See Glossary on page 520 for explanation of abbreviations.

r Revised.

1 Propane.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-8

Net Consumption of Energy by the Commercial Sector
New York State — 1990-2004

					Petroleum Products			
	Coal		Natural Gas		Distillate		Residual	
Year	TBtu	MTons	TBtu	Bcf	TBtu	Mbbl	TBtu	Mbbl
1990r	5.4	218	200.7	195	89.8	15,415	109.4	17,400
1991r	5.7	229	205.0	200	86.0	14,767	106.9	17,002
1992r	5.6	226	223.6	217	94.1	16,161	99.2	15,773
1993r	4.6	190	227.2	221	94.0	16,130	108.8	17,303
1994r	3.9	157	229.6	223	94.6	16,232	101.0	16,057
1995r	4.8	191	238.6	231	91.5	15,711	85.2	13,555
1996r	6.2	249	259.9	253	90.5	15,531	80.4	12,791
1997r	5.6	226	329.5	321	83.5	14,337	63.5	10,105
1998r	3.3	131	345.3	335	69.4	11,914	42.5	6,765
1999r	4.0	158	370.5	360	81.2	13,946	46.8	7,439
2000r	2.3	90	377.7	366	88.1	15,128	59.3	9,429
2001r	2.6	101	358.8	347	98.2	16,865	45.2	7,193
2002r	2.1	103	372.8	362	87.6	15,032	54.6	8,678
2003r	2.0	98	347.3	336	106.5	18,287	67.8	10,777
2004	2.0	98	248.2	241	101.3	17,390	71.4	11,362

	Petroleum Products (continued)									
	Kerosene		LPG[1]		Total		Wood Waste	Electricity		Total
Year	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	TBtu	GWh	TBtu
1990r	1.5	269	2.6	720	203.3	33,804	3.2	191.2	56,026	603.8
1991r	1.2	213	3.2	891	197.3	32,873	3.3	192.5	56,408	603.8
1992r	2.3	408	3.2	876	198.8	33,218	3.6	191.3	56,079	622.9
1993r	3.5	616	2.7	758	209.0	34,807	4.6	195.9	57,410	641.2
1994r	3.1	538	2.8	768	201.3	33,595	5.6	00.6	58,802	641.1
1995r	4.0	714	2.9	797	183.7	30,777	8.0	213.3	62,509	648.4
1996r	4.3	751	3.1	871	178.3	29,944	8.5	213.8	62,663	666.7
1997r	4.5	801	2.8	773	154.4	26,016	12.9	218.5	64,033	720.9
1998r	5.6	981	2.8	763	120.3	20,423	12.7	224.6	65,834	706.2
1999r	3.9	682	3.0	828	134.9	22,895	14.0	231.9	67,969	755.3
2000r	5.4	948	4.0	1,096	156.7	26,601	14.5	240.3	70,418	791.5
2001r	5.0	874	3.0	829	151.4	25,761	12.1	238.4	69,861	763.3
2002r	2.8	493	3.5	960	148.4	25,163	12.5	239.5	70,190	775.2
2003r	3.8	665	3.5	964	181.5	30,693	13.3	247.4	72,497	791.6
2004	4.2	745	4.0	1,040	180.9	30,536	13.6	254.0	74,433	698.7

NOTE: TBtu totals may not equal to the sum of components due to rounding.

See Glossary on page 520 for explanation of abbreviations.

r Revised.

1 Propane.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-9

Net Consumption of Energy by the Industrial Sector
New York State — 1990-2004

					Petroleum Products			
	Coal		Natural Gas		Distillate		Residual	
Year	TBtu	MTons	TBtu	Bcf	TBtu	Mbbl	TBtu	Mbbl
1990r	82.6	3,199	97.9	95	23.7	4,073	29.4	4,684
1991r	82.2	3,185	114.8	111	20.5	3,522	14.9	2,369
1992r	71.3	2,758	135.1	131	21.1	3,624	19.1	3,036
1993r	76.2	2,947	125.9	122	25.1	4,317	24.3	3,860
1994r	75.1	2,893	147.4	145	19.9	3,411	19.9	3,160
1995r	72.4	2,791	205.3	200	17.9	3,071	12.5	1,990
1996r	72.5	2,799	211.3	207	17.8	3,053	15.4	2,456
1997r	72.7	2,804	211.0	205	17.0	2,922	12.4	1,965
1998r	75.1	2,878	175.3	171	17.6	3,016	11.7	1,868
1999r	71.6	2,742	111.2	108	20.0	3,441	10.2	1,623
2000r	73.5	2,747	108.0	136	19.1	3,285	12.6	2,005
2001r	71.1	2,664	89.2	89	17.4	2,981	9.7	1,554
2002r	50.6	2,462	95.8	90	16.8	2,889	8.6	1,362
2003r	50.8	2,494	80.4	76	16.4	2,819	10.0	1,583
2004	50.0	2,464	74.0	71	17.7	3,041	9.3	1,472

	Petroleum Products (continued)									
	Kerosene		LPG[1]		Total		Wood Waste	Electricity		Total[2]
Year	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	TBtu	GWh	TBtu
1990r	1.4	249	2.4	657	57.0	9,663	26.6	108.9	31,929	373.1
1991r	1.9	335	4.0	1,107	41.3	7,333	20.8	106.2	31,112	365.2
1992r	1.1	201	4.0	1,092	45.3	7,953	20.2	105.9	31,027	377.7
1993r	1.4	241	3.5	961	54.2	9,379	19.6	103.0	30,187	378.9
1994r	2.0	355	3.4	948	45.2	7,874	21.6	100.5	29,467	389.8
1995r	2.3	409	3.2	881	35.9	6,351	21.2	86.4	25,317	421.2
1996r	3.9	682	4.1	1,142	41.2	7,333	33.0	88.5	25,947	446.6
1997r	2.0	361	5.2	1,445	36.6	6,693	34.7	86.3	25,285	441.3
1998r	2.9	511	6.1	1,687	38.3	7,082	29.1	86.0	25,218	403.9
1999r	0.4	77	6.4	1,772	37.1	6,913	30.6	88.2	25,835	338.7
2000r	0.9	151	8.3	2,308	40.9	7,749	32.2	88.2	25,838	342.7
2001r	1.0	181	5.6	1,559	33.7	6,265	27.1	84.2	24,689	305.3
2002r	1.3	238	4.1	1,145	30.9	5,634	27.6	82.9	24,290	287.8
2003r	5.1	891	6.6	1,813	38.0	7,106	28.2	74.2	21,745	271.6
2004	2.1	372	4.8	1,240	33.8	6,126	26.5	68.0	19,931	252.3

NOTE: TBtu totals may not equal to the sum of components due to rounding.

See Glossary on page 520 for explanation of abbreviations.

r Revised.

1 Propane.

2 Includes fuels used by industry to generate electricity and process steam; excludes nonfuel uses. Also excludes industrial hydroelectric power.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-10

Net Consumption of Energy by the Transportation Sector
New York State — 1990-2004

	Natural Gas		Distillate		Residual		Motor Gasoline		Aviation Fuels[1]	
Year	TBtu	Bcf	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbb
1990r	4.9	5	126.4	21,700	8.5	1,358	731.1	139,180	227.2	40,066
1991r	5.2	5	115.5	19,828	24.8	3,948	700.3	133,311	207.1	36,519
1992r	6.1	6	115.9	19,905	23.2	3,688	678.0	129,064	207.4	36,582
1993r	6.3	6	121.9	20,932	20.2	3,216	691.9	131,710	207.8	36,653
1994r	6.3	6	125.3	21,506	19.6	3,122	670.6	128,228	210.1	37,050
1995r	8.4	8	124.2	21,316	14.6	2,318	691.6	132,627	220.1	38,825
1996r	8.1	8	127.1	21,822	40.5	6,441	683.2	130,979	217.3	38,333
1997r	8.3	8	133.0	22,839	32.1	5,109	682.5	130,923	222.8	39,294
1998r	8.0	8	125.6	21,558	25.3	4,024	685.2	131,469	218.8	38,581
1999r	8.6	8	140.0	24,028	39.2	6,237	696.3	133,621	222.0	39,158
2000r	8.6	8	134.2	23,044	51.1	8,126	692.0	132,831	223.4	39,393
2001r	8.6	8	137.0	23,520	20.2	3,207	696.7	133,724	207.2	36,549
2002r	8.6	8	137.7	23,641	24.1	3,826	711.7	136,664	196.1	34,584
2003r	8.6	8	187.0	32,095	28.8	4,580	720.5	138,371	197.8	34,894
2004	8.6	8	206.5	35,458	36.4	5,783	714.2	137,170	211.2	37,257

	LPG[2]		Total Petroleum		Ethanol		Electricity		Total
Year	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	GWh	TBtu
1990r	0.5	150	1,093.8	202,464	NA	NA	9.5	2,795	1,108.2
1991r	0.6	158	1,048.2	193,764	NA	NA	9.3	2,714	1,062.7
1992r	0.5	144	1,025.0	189,383	NA	NA	9.0	2,644	1,040.2
1993r	0.5	127	1,042.3	192,638	0.3	83	9.1	2,676	1,058.0
1994r	1.0	286	1,026.6	190,192	0.7	205	9.6	2,803	1,043.2
1995r	0.5	138	1,051.0	195,224	2.3	654	9.4	2,757	1,071.1
1996r	0.4	123	1,068.6	197,698	2.0	552	9.0	2,632	1,087.6
1997r	0.3	90	1,070.8	198,255	1.9	532	8.8	2,567	1,089.7
1998r	1.9	533	1,056.8	196,165	1.4	394	8.8	2,580	1,075.0
1999r	0.1	25	1,097.6	203,069	1.2	341	9.1	2,654	1,116.5
2000r	0.8	234	1,101.6	203,628	1.3	377	9.4	2,753	1,120.9
2001r	0.1	25	1,061.2	197,025	0.4	107	9.6	2,800	1,079.7
2002r	0.2	66	1,069.8	198,781	0.4	125	9.7	2,850	1,088.6
2003r	0.1	29	1,134.2	209,968	0.5	148	9.8	2,866	1,153.1
2004	0.3	71	1,168.7	215,740	0.6	183	10.9	3,209	1,188.9

NOTE: TBtu totals may not equal to the sum of components due to rounding.

See Glossary on page 520 for explanation of abbreviations.

r Revised.

NA Not available.

1 Kerosene-type jet fuel and aviation gasoline.

2 Propane.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-11

Net Energy Bill by Sector and Type of Fuel
New York State — 1990, 1995, 2000 and 2004
(millions of current dollars)

Fuel	All Sectors	Residential	Commercial	Industrial	Transportation
			- - - 1990r - - -		
All Fuels	$ 28,560.2	$ 8,740.7	$ 7,763.8	$ 2,758.9	$ 9,296.8
Coal	158.2	5.0	9.5	143.7	X
Petroleum	12,236.0	1,819.6	1,036.1	306.0	9,074.3
Distillate	3,434.1	1,549.6	587.2	160.9	1,136.4
Residual	547.6	X	410.4	110.5	26.7
Gasoline	6,535.6	X	X	X	6,535.6
Kerosene	87.9	68.4	10.4	9.1	X
Aviation	1,369.8	X	X	X	1,369.8
LPG[1]	261.1	201.6	28.0	25.6	5.8
Natural Gas	4,055.0	2,502.0	1,090.3	462.6	X
Electricity	12,111.0	4,414.0	5,627.9	1,846.6	222.5
			- - - 1995r - - -		
All Fuels	$ 31,268.5	$ 10,169.9	$ 9,374.6	$ 2,688.4	$ 9,035.8
Coal	132.6	2.2	8.0	122.4	X
Petroleum	11,210.9	1,465.1	794.2	166.1	8,785.5
Distillate	2,863.5	1,193.8	463.1	86.6	1,120.0
Residual	365.2	X	284.6	41.8	38.8
Gasoline	6,733.1	X	X	X	6,733.1
Kerosene	69.9	37.8	21.8	10.3	X
Aviation	889.4	X	X	X	889.4
LPG[1]	289.9	233.5	24.7	27.4	4.3
Natural Gas	5,505.9	3,159.3	1,412.5	934.1	X
Electricity	14,419.1	5,543.2	7,159.8	1,465.9	250.1
			- - - 2000r - - -		
All Fuels	$ 40,223.2	$ 12,697.7	$ 12,453	$ 2,468.4	$ 12,604.1
Coal	124.4	0.9	3.7	119.8	X
Petroleum	16,500.3	2,741.2	1,075.9	317.7	12,365.6
Distillate	4,665.0	2,218.3	701.4	145.2	1,600.0
Residual	540.1	X	272.7	58.0	209.5
Gasoline	9,004.0	X	X	X	9,004.0
Kerosene	183.3	125.5	50.7	7.1	X
Aviation	1,541.2	X	X	X	1,541.2
LPG[1]	566.7	397.4	51.0	107.4	10.9
Natural Gas	7,431.6	3,945.1	2,844.1	642.4	X
Electricity	16,166.9	6,010.5	8,529.4	1,388.5	238.5
			- - - 2004 - - -		
All Fuels	$ 46,584.3	$ 14,755.6	$ 12,821.2	$ 2,349.3	$ 16,658.2
Coal	114.9	1.3	4.5	109.1	X
Petroleum	21,244.0	2,953.6	1,484.9	358.1	16,447.4
Distillate	6,368.8	2,321.7	1,024.4	179.4	2,843.2
Residual	605.5	X	383.7	49.7	172.1
Gasoline	11,527.4	X	X	X	11,527.4
Kerosene	225.6	171.2	39.4	15.0	X
Aviation	1,899.4	X	X	X	1,899.4
LPG[1]	617.3	460.8	37.4	113.9	5.3
Natural Gas	7,918.4	4,952.6	2,325.4	640.4	X
Electricity	17,307.0	6,848.1	9,006.4	1,241.7	210.8

NOTE: Detail may not add to totals due to rounding.

r Revised.

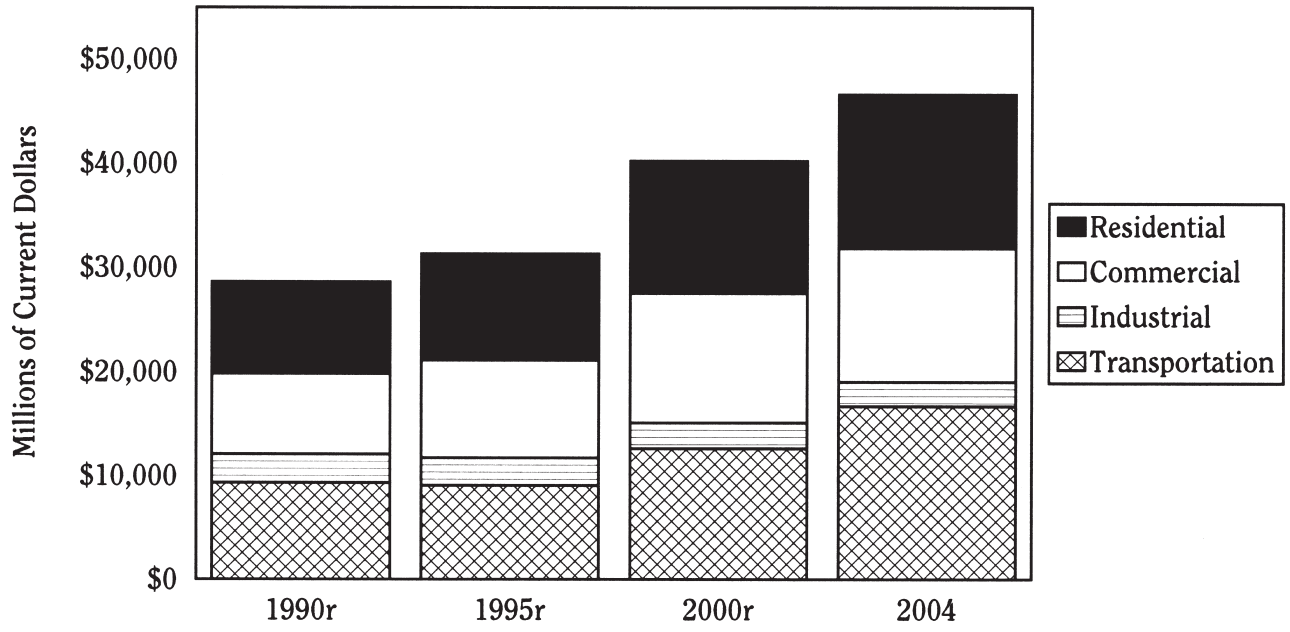
X Not applicable.

1 Propane.

SOURCE: New York State Energy Research and Development Authority.

FIGURE L-5

Net Energy Costs by Sector
New York State — Selected Years — 1990-2004

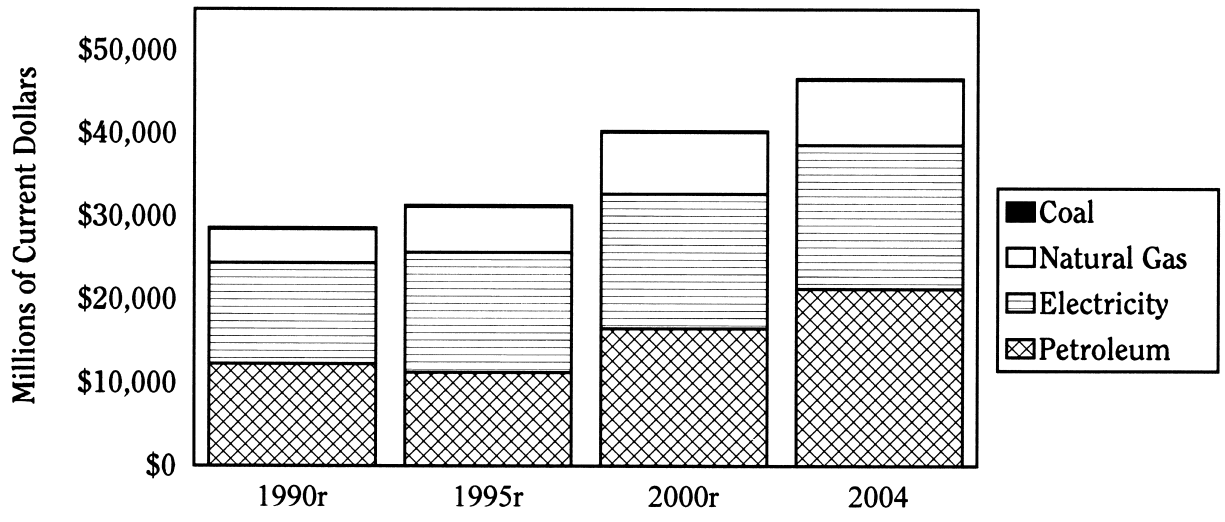


r Revised.

SOURCE: New York State Energy Research and Development Authority.

FIGURE L-6

Net Energy Costs by Fuel Type
New York State — Selected Years — 1990-2004



r Revised.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-12

Residential Retail Energy Prices
New York State — 1990-2004

	Coal		Distillate[1]		Kerosene		LPG[2]		Natural Gas		Electricity	
Date	$/ ton	$/ MMBtu	cents/ gallon	$/ MMBtu	cents/ gallon	$/ MMBtu	cents/ gallon	$/ MMBtu	$/ Mcf	$/ MMBtu	cents/ kWh	$/ MMBtu
1990r	82.95	3.59	117.05	8.44	92.21	6.83	117.68	13.64	7.41	7.19	11.44	33.54
1991r	79.58	3.44	115.81	8.35	84.11	6.23	125.55	14.59	7.37	7.15	11.97	35.09
1992r	74.23	3.21	106.93	7.71	78.30	5.80	124.54	14.43	7.59	7.36	12.43	36.43
1993r	74.76	3.25	104.16	7.51	75.06	5.56	114.59	13.35	8.15	7.92	13.17	38.61
1994r	76.04	3.29	100.41	7.24	75.87	5.62	126.01	14.56	8.76	8.51	13.55	39.72
1995r	73.52	3.18	99.30	7.16	72.63	5.38	123.10	14.27	8.39	8.17	13.90	40.73
1996r	77.78	3.38	110.54	7.97	81.41	6.03	128.43	14.93	8.90	8.67	14.04	41.14
1997r	80.30	3.57	110.81	7.99	84.51	6.26	129.32	15.02	9.74	9.48	14.12	41.38
1998r	70.27	3.25	98.61	7.11	59.94	4.44	119.18	13.85	9.62	9.31	13.66	40.03
1999r	76.65	3.21	100.83	7.27	73.58	5.45	121.05	14.06	9.12	8.87	13.23	38.78
2000r	75.56	3.02	149.92	10.81	127.44	9.44	152.35	17.74	9.80	9.55	13.97	40.95
2001r	85.19	3.42	141.74	10.22	117.99	8.74	159.88	18.58	11.72	11.37	14.06	41.22
2002r	103.08	4.49	126.62	9.13	106.92	7.92	140.39	16.32	9.85	9.57	13.58	39.80
2003r	94.83	4.26	158.49	11.43	164.08	12.15	155.70	18.02	11.58	11.21	14.31	41.94
2004	113.80	4.96	184.14	13.28	197.31	14.62	175.69	20.38	12.42	12.05	14.58	42.73

NOTE: See glossary on page 520 for explanation of abbreviations.

r Revised.

1 Home heating oil.

2 Propane.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-13

Commercial Retail Energy Prices
New York State — 1990-2004

	Coal		Distillate		Residual		Kerosene		Natural Gas		Electricity	
Date	$/ ton	$/ MMBtu	cents/ gallon	$/ MMBtu	$/ bbl	$/ MMBtu	cents/ gallon	$/ MMBtu	$/ Mcf	$/ MMBtu	cents/ kWh	$/ MMBtu
1990r	40.64	1.76	90.70	6.54	23.59	3.75	92.21	6.83	5.60	5.43	10.05	29.44
1991r	40.22	1.74	83.35	6.01	17.78	2.83	84.11	6.23	5.48	5.32	10.34	30.31
1992r	40.43	1.75	75.86	5.47	18.17	2.89	78.30	5.80	5.76	5.59	10.74	31.48
1993r	38.39	1.67	73.37	5.29	18.11	2.88	75.06	5.56	6.15	5.98	11.21	32.87
1994r	38.60	1.67	71.43	5.15	19.36	3.08	75.87	5.62	6.51	6.33	11.25	32.98
1995r	38.61	1.67	70.18	5.06	21.00	3.34	72.63	5.38	6.08	5.92	11.45	33.57
1996r	36.82	1.60	83.35	6.01	25.40	4.04	81.41	6.03	6.88	6.70	11.60	33.99
1997r	37.12	1.65	76.28	5.50	21.63	3.44	84.51	6.26	6.50	6.33	11.68	34.22
1998r	29.62	1.37	60.89	4.39	14.96	2.38	59.94	4.44	6.09	5.90	11.19	32.79
1999r	32.00	1.34	65.32	4.71	17.48	2.78	73.58	5.45	5.15	5.01	9.91	29.03
2000r	40.03	1.60	110.40	7.96	28.92	4.60	127.44	9.44	7.73	7.53	12.11	35.50
2001r	38.86	1.56	93.62	6.75	25.59	4.07	117.99	8.74	9.59	9.30	12.37	38.04
2002r	47.02	2.05	88.35	6.37	25.90	4.12	106.92	7.92	6.42	6.24	12.46	36.52
2003r	43.26	1.94	111.32	8.03	31.86	5.07	132.58	9.82	8.59	8.32	12.93	37.90
2004	51.91	2.26	140.26	10.11	33.77	5.37	125.95	9.33	9.66	9.37	12.10	35.46

NOTE: See glossary on page 520 for explanation of abbreviations.

r Revised.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-14

Industrial Retail Energy Prices
New York State — 1990-2004

Date	Coal		Distillate		Residual		Kerosene	
	$/ ton	$/ MMBtu	cents/ gallon	$/ MMBtu	$/ bbl	$/ MMBtu	cents/ gallon	$/ MMBtu
1990r	42.85	1.74	94.03	6.78	23.59	3.75	87.21	6.46
1991r	42.68	1.73	77.67	5.60	17.78	2.83	78.30	5.80
1992r	42.67	1.74	76.42	5.51	18.17	2.89	65.88	4.88
1993r	41.58	1.70	70.32	5.07	18.11	2.88	65.34	4.84
1994r	41.54	1.70	70.45	5.08	19.36	3.08	69.53	5.15
1995r	41.19	1.69	67.13	4.84	21.00	3.34	60.21	4.46
1996r	40.10	1.64	81.55	5.88	25.40	4.04	77.22	5.72
1997r	41.38	1.69	74.75	5.39	21.63	3.44	70.74	5.24
1998r	36.68	1.45	57.97	4.18	14.96	2.38	54.14	4.01
1999r	36.69	1.47	64.77	4.67	17.48	2.78	62.51	4.63
2000r	40.64	1.63	105.27	7.59	28.92	4.60	111.51	8.26
2001r	40.79	1.63	91.67	6.61	25.59	4.07	90.86	6.73
2002r	49.35	1.97	88.48	6.38	25.90	4.12	81.41	6.03
2003r	45.41	1.82	111.49	8.04	31.86	5.07	100.94	7.48
2004	54.49	2.18	140.48	10.13	33.77	5.37	95.90	7.10

Year	LPG[1]		Natural Gas		Electricity	
	cents/ gallon	$/ MMBtu	$/ Mcf	$/ MMBtu	cents/ kWh	$/ MMBtu
1990r	92.70	10.74	4.86	4.72	5.78	16.95
1991r	99.21	11.53	4.73	4.59	6.17	18.07
1992r	85.25	9.88	4.94	4.79	6.50	19.06
1993r	83.28	9.70	5.16	5.02	6.67	19.53
1994r	74.78	8.64	5.23	5.08	6.78	19.86
1995r	73.93	8.57	4.67	4.55	5.79	16.97
1996r	78.20	9.09	5.04	4.91	5.62	16.48
1997r	86.44	10.04	5.05	4.92	5.20	15.23
1998r	80.37	9.34	4.03	3.90	4.95	14.50
1999r	82.05	9.53	3.90	3.79	4.74	13.89
2000r	110.79	12.90	6.10	5.95	5.37	15.75
2001r	109.80	12.76	7.69	7.47	5.51	16.16
2002r	103.92	12.08	5.53	5.37	5.16	15.12
2003r	142.37	16.48	7.35	7.12	7.14	20.93
2004	206.32	23.95	8.68	8.42	6.23	18.26

NOTE: See glossary on page 520 for explanation of abbreviations.

r Revised.

1 Propane.

SOURCE: New York State Energy Research Development Authority.

TABLE L-15

Transportation Retail Energy Prices
New York State — 1990-2004

Date	Gasoline		Distillate[1]		Jet Fuel[2]		Residual[3]		Electricity[4]	
	cents/ gallon	$/ MMBtu	cents/ gallon	$/ MMBtu	cents/ gallon	$/ MMBtu	$/ bbl	$/ MMBtu	cents/ kWh	$/ MMBtu
1990r	110.44	8.83	124.68	8.99	81.40	6.03	19.70	3.13	7.96	23.33
1991r	118.07	9.44	125.65	9.06	69.90	5.18	14.94	2.38	7.89	23.12
1992r	116.07	9.28	123.30	8.89	65.30	4.84	14.64	2.33	8.71	25.54
1993r	113.06	9.04	125.38	9.04	60.30	4.47	14.41	2.29	9.14	26.78
1994r	114.06	9.16	128.29	9.25	55.89	4.14	15.09	2.40	9.31	27.28
1995r	118.83	9.57	125.10	9.02	54.54	4.04	16.72	2.66	9.07	26.59
1996r	123.32	9.93	134.11	9.67	65.88	4.88	19.80	3.15	9.13	26.75
1997r	124.62	10.04	128.84	9.29	61.16	4.53	17.54	2.79	9.17	26.88
1998r	106.23	8.56	113.73	8.20	45.90	3.40	12.20	1.94	8.85	25.94
1999r	118.74	9.57	122.05	8.80	57.11	4.23	15.53	2.47	8.74	25.62
2000r	159.65	12.87	165.32	11.92	93.15	6.90	25.78	4.10	8.66	25.39
2001r	143.03	11.53	145.90	10.52	78.17	5.79	19.93	3.17	8.92	26.14
2002r	134.17	10.82	136.61	9.85	72.69	5.38	22.82	3.63	9.05	26.52
2003r	168.10	13.56	163.14	11.76	87.96	6.52	28.07	4.46	9.37	27.46
2004	198.04	15.95	190.92	13.77	121.39	8.99	29.76	4.73	6.57	19.26

NOTE: Propane used for transportation is assumed to have the same price as industrial propane.

See glossary on page 520 for explanation of abbreviations.

r Revised.

1 Diesel.

2 Kerosene-based.

3 Bunker fuel.

4 Consumed by railroads.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-16

Sources and Disposition of Energy by the New York Power Authority
New York State — 2005

	Megawatt Hours (thousands)
Sources of Energy	
All Purchases and Generation	41,454
Generation (excluding station use)	24,571
Steam	3,573
Hydro	20,247
Gas Turbines	751
Purchases from Utilities, Utility Affiliates and Power Marketers	16,883
Losses and Unaccounted for	-245
Disposition of Energy	
All Sales	41,209
Direct Sales to Commercial and Industrial Customers[1]	5,006
Sales to Municipal Electric Systems, Rural Electric Cooperatives and Other Public Customers[2]	17,202
Sales to utilities and the NY ISO for resale[3]	19,001

1 Includes sales to 25 companies, primarily industrial.

2 Includes sales to 47 municipal systems, four rural cooperatives and more than 100 public agencies in New York State and to seven neighboring states.

3 Includes sales to the six investor-owned utilities in New York State, the Long Island Power Authority and the New York Independent System Operator (ISO). Portions were designated for resale to residential and farm customers or to business and not-for-profit customers in the state.

SOURCE: Power Authority of the State of New York.

TABLE L-17

Generation by Major Privately Owned Electric Utilities by Type of Prime Mover Driving the Generator New York State — 1972-2004

(millions of kilowatt-hours)

Year	Total	Hydro	Steam		Other
			Fossil Fuel	Nuclear	
1972	81,660	4,450	64,188	6,726	6,296
1973	83,231	4,276	67,048	7,138	4,769
1974	81,100	4,492	63,950	9,909	2,749
1975	82,669	4,251	65,891	10,939	1,588
1976	79,604	4,614	65,107	8,406	1,477
1977	82,692	4,101	66,528	11,160	903
1978	82,498	3,634	66,471	12,031	362
1979	77,807	3,930	62,668	10,740	469
1980	80,106	3,292	64,404	11,864	546
1981	79,498	3,831	65,442	9,628	597
1982	75,263	3,734	63,555	7,960	14
1983	79,424	3,769	63,917	11,710	28
1984	78,655	4,207	64,131	10,249	68
1985	82,408	3,649	63,563	15,196	—
1986	77,764	4,642	62,283	10,544	295
1987	86,926	3,847	68,936	13,822	321
1988	95,421	3,537	78,334	12,985	565
1989	101,961	4,057	84,711	11,796	1,397
1990	99,790	4,611	81,106	14,036	38
1991	97,410	3,797	75,281	17,745	587
1992	88,987	3,626	65,709	19,389	263
1993	79,897	3,300	55,206	20,940	451
1994	80,440	3,950	51,500	24,400	590
1995	75,870	2,980	52,850	20,030	10
1996	75,959	4,694	46,302	24,053	910
1997	75,973	4,065	53,065	18,578	265
1998a	60,994	3,786	39,170	17,594	444
1999a	45,443	1,948	22,953	20,208	334
2000a	24,908	703	8,181	15,886	138
2001a	23,674	468	3,560	19,371	275
2002a	5,802	166	1,766	3,869	1
2003a	5,759	170	1,726	3,863	—
2004a	5,770	174	1,757	3,839	—

— Represents zero.

a Excludes sales by Long Island Power Authority (formerly Long Island Lighting Co.).

SOURCE: New York State Department of Public Service, Office of Accounting and Finance.

TABLE L-18

Energy Sales to Ultimate Customers of Major Privately Owned Electric Utilities by Type of Customer New York State — 1972-2004

(millions of kilowatt-hours)

Year	All Sales[1]	Residential	Commercial and Industrial	Other[2]
1972	87,793	26,804	52,152	8,837
1973	93,101	28,497	55,344	9,260
1974	89,207	27,234	52,902	9,071
1975	89,353	28,012	52,179	9,162
1976	91,211	28,733	53,932	8,546
1977	88,902	29,044	55,254	4,604
1978	89,228	29,201	56,715	3,312
1979	90,398	29,451	57,698	3,249
1980	90,604	29,815	57,469	3,320
1981	91,012	29,731	57,958	3,323
1982	89,324	29,660	56,536	3,128
1983	92,498	30,792	58,500	3,206
1984	95,525	31,524	60,790	3,211
1985	96,271	31,424	61,562	3,285
1986	99,003	32,389	63,329	3,285
1987	102,823	33,869	65,569	3,385
1988	109,096	35,946	69,639	3,511
1989	111,441	36,304	71,585	3,552
1990	112,441	36,997	71,821	3,623
1991	112,426	37,504	71,255	3,667
1992	111,478	37,050	70,748	3,680
1993	113,520	38,200	71,125	4,195
1994	113,970	38,353	71,947	3,670
1995	113,389	38,190	71,537	3,662
1996	114,271	38,488	72,139	3,644
1997	114,681	38,289	72,747	3,645
1998a	96,838	30,996	62,585	3,257
1999a	93,947	32,659	58,238	3,050
2000a	88,732	31,864	54,078	2,790
2001a	88,472	32,345	53,739	2,388
2002a	86,921	33,637	50,979	2,305
2003a	84,908	34,099	48,125	2,684
2004a	99,072	35,293	60,260	3,519

a Excludes sales by Long Island Power Authority (formerly Long Island Lighting Co.).

1 Excluding sales for resale.

2 Other now includes Street and Highway Lighting, Other Public Authorities, Railroads and Railways and Interdepartmental.

SOURCE: New York State Department of Public Service, Office of Accounting and Finance.

TABLE L-19

Energy Sales to Final Customers of Major Privately Owned Gas Utilities by Type of Customer New York State — 1972-2004

(millions of therms)

Year	All Sales[1]	Residential	Commercial and Industrial	Other[2]
1972	6,673	3,852	2,646	175
1973	6,267	3,535	2,543	189
1974	6,598	3,663	2,768	167
1975	6,380	3,646	2,596	138
1976	6,878	3,942	2,780	156
1977	6,311	3,689	2,477	145
1978	6,586	3,756	2,689	141
1979	6,632	3,608	2,848	176
1980	6,838	3,635	2,925	278
1981	7,143	3,665	3,150	328
1982	7,081	3,658	3,060	363
1983	6,739	3,515	2,796	428
1984	7,105	3,687	2,928	490
1985	6,802	3,545	2,860	397
1986	6,332	3,678	2,446	208
1987	6,104	3,657	2,148	299
1988	6,212	3,898	2,070	244
1989	6,172	3,969	1,975	227
1990	5,889	3,664	1,915	310
1991	5,760	3,616	1,811	333
1992	6,438	4,111	1,975	352
1993	6,714	4,133	1,983	598
1994	6,745	4,110	2,286	349
1995	6,786	4,039	2,286	461
1996	6,888	4,285	2,255	349
1997	6,653	4,090	2,132	431
1998a	4,713	3,100	1,338	275
1999a	5,447	3,653	1,553	241
2000a	5,825	3,830	1,776	219
2001a	5,026	3,265	1,529	232
2002a	5,358	3,461	1,659	238
2003a	5,563	3,622	1,668	273
2004a	6,249	3,741	1,589	919

a Does not include former Long Island Lighting Company gas operations (now KeySpan East).

1 Excluding sales for resale.

2 Other now includes Interdepartmental, which was listed separately in earlier years. All figures shown for Other below are revised from earlier editions.

SOURCE: New York State Department of Public Service, Office of Accounting and Finance.

TABLE L-20

Residential Customers of Electric and Gas Utilities
Usage and Bill per Customer and Revenue per Unit Consumed
New York State — Selected Years 1960-2004

		Electricity			
		Average Annual Bill per Customer		Revenue per kWh	
Year	Average Usage per Customer (kWh)	Current Dollars	Constant Dollars[1]	Current Dollars	Constant Dollars[1]
1960	2,598	$ 83.84	$ 355.91	$ 0.0323	$ 0.1370
1965	3,293	99.94	372.12	0.0303	0.1130
1970	4,662	134.43	406.42	0.0288	0.0872
1975	5,120	266.15	780.48	0.0520	0.1524
1976	5,269	286.43	794.92	0.0544	0.1509
1977	5,315	316.67	825.74	0.0596	0.1554
1978	5,329	328.02	798.36	0.0616	0.1498
1979	5,336	361.51	812.29	0.0677	0.1522
1980	5,359	414.27	852.32	0.0773	0.1590
1981	5,312	506.70	953.64	0.0954	0.1795
1982	5,260	529.67	938.35	0.1007	0.1784
1983	5,416	576.89	983.20	0.1065	0.1815
1984	5,491	606.72	996.91	0.1105	0.1816
1985	5,417	604.00	962.04	0.1115	0.1776
1986	5,523	598.53	932.73	0.1084	0.1689
1987	5,709	616.16	932.32	0.1079	0.1633
1988	5,989	642.87	940.72	0.1073	0.1571
1989	5,985	671.72	946.87	0.1122	0.1582
1990	6,046	711.39	965.05	0.1177	0.1596
1991	6,100	751.05	983.24	0.1231	0.1612
1992	5,969	764.41	976.93	0.1281	0.1637
1993	6,119	830.45	1,036.42	0.1357	0.1694
1994	6,107	853.83	1,043.91	0.1398	0.1709
1995	6,046	865.94	1,036.09	0.1432	0.1714
1996	6,069	879.05	1,031.82	0.1448	0.1700
1997	6,019	876.83	1,009.56	0.1457	0.1677
1998	5,683	794.38	903.31	0.1398	0.1589
1999a	5,934	816.81	915.10	0.1376	0.1542
2000a	5,843	855.18	935.63	0.1464	0.1601
2001a	5,911	861.06	921.79	0.1457	0.1559
2002a	6,148	847.28	887.73	0.1378	0.1444
2003a	6,206	914.27	935.11	0.1473	0.1507
2004a	6,373	916.60	916.60	0.1438	0.1438

(Continued on the following page)

TABLE L-20 (continued)

Residential Customers of Electric and Gas Utilities
Usage and Bill per Customer and Revenue per Unit Consumed
New York State — Selected Years 1960-2004

Year	Gas				
	Average Usage per Customer (Mcf)	Average Annual Bill per Customer		Revenue per Mcf	
		Current Dollars	Constant Dollars[1]	Current Dollars	Constant Dollars[1]
1960	65.1	$ 90.90	$ 358.88	$ 1.40	$ 5.94
1965	80.0	105.86	394.16	1.32	4.93
1970	92.0	125.54	379.55	1.36	4.13
1975	89.8	221.02	648.14	2.46	7.22
1976	98.9	275.78	765.36	2.79	7.74
1977	94.9	311.91	813.33	3.29	8.57
1978	97.2	342.82	834.38	3.53	8.58
1979	93.4	370.38	832.22	3.97	8.91
1980	104.2	516.49	1,062.63	4.96	10.20
1981	94.3	509.26	958.46	5.40	10.16
1982	93.9	604.68	1,071.23	6.44	11.41
1983	87.7	680.52	1,159.81	7.76	13.22
1984	91.5	695.99	1,143.59	7.61	12.50
1985	87.3	667.48	1,063.15	7.65	12.18
1986	90.2	665.90	1,037.71	7.38	11.50
1987	88.9	588.16	889.95	6.62	10.01
1988	94.2	614.61	899.36	6.52	9.55
1989	99.5	700.23	987.06	7.04	9.92
1990	87.0	632.18	857.60	7.27	9.86
1991	85.5	634.16	830.21	7.42	9.71
1992	96.2	716.82	916.11	7.45	9.52
1993	96.0	782.53	976.61	8.15	10.17
1994	95.8	828.05	1,012.39	8.64	10.57
1995	93.3	771.00	922.50	8.26	9.89
1996	98.6	881.55	1,034.76	8.94	10.49
1997	93.8	872.68	1,004.78	9.30	10.71
1998	79.0	744.10	846.14	9.42	10.71
1999a	83.9	766.44	858.67	9.14	10.23
2000a	89.3	894.21	978.33	10.01	10.95
2001a	80.0	947.51	1,014.34	11.84	12.68
2002a	81.6	795.75	833.74	9.76	10.22
2003a	85.6	893.24	913.61	10.44	10.67
2004a	91.9	1,117.40	1,117.40	12.15	12.15

NOTE: See Glossary on page 520 for explanation of abbreviations.

a Does not include former Long Island Lighting Company gas operations (now KeySpan East).

1 Base year 1996 = 100.

SOURCE: New York State Department of Public Service, Office of Accounting and Finance.

TABLE L-21

Electric Service Companies[1]
Average Annual Bill Data
New York State — 2003

Company	Average Number of Customers	Sales Revenues (thousands)	Kilowatt-Hours Sold (millions)	Average Annual Bill per Customer	Average Usage per Customer (000 kWh)	Average Revenue per kWh Sold (cents)
			- - - Total[2] - - -			
Central Hudson	287,941	$ 399,892	4,628	$ 1,389	16	8.64¢
Consolidated Edison	3,152,023	5,893,652	44,014	1,870	14	13.39
New York State E&G	856,162	1,499,661	17,796	1,752	21	8.43
Niagara Mohawk	1,494,108	2,656,527	27,923	1,778	19	9.51
Orange & Rockland	214,959	367,852	4,374	1,711	20	8.41
Rochester G&E	357,455	648,249	10,407	1,814	29	6.23
Composite	6,362,648	$ 11,465,833	109,142	$ 1,802	17	10.51¢
			- - - Residential - - -			
Central Hudson	243,985	$ 208,815	2,003	$ 856	8	10.43¢
Consolidated Edison	2,696,196	2,438,718	13,169	905	5	18.52
New York State E&G	742,899	718,094	5,974	967	8	12.02
Niagara Mohawk	1,350,849	1,304,277	10,169	966	8	12.83
Orange & Rockland	185,562	170,327	1,500	918	8	11.36
Rochester G&E	318,354	235,738	2,478	740	8	9.51
Composite	5,537,845	$ 5,075,969	35,293	$ 917	6	14.38¢
			- - - Commercial - - -			
Central Hudson	39,160	$ 118,534	1,495	$ 3,027	38	7.93¢
Consolidated Edison	451,292	3,285,042	29,392	7,279	65	11.18
New York State E&G	96,855	324,254	3,847	3,348	40	8.43
Niagara Mohawk	137,305	829,258	6,872	6,040	50	12.07
Orange & Rockland	28,713	139,112	1,781	4,845	62	7.81
Rochester G&E	34,957	132,827	2,491	3,800	71	5.33
Composite	788,282	$ 4,829,027	45,878	$ 6,126	58	10.53¢
			- - - Industrial[3] - - -			
Central Hudson	1,035	$ 29,042	478	$ 28,060	462	6.07¢
Consolidated Edison	410	78,108	778	190,507	1,897	10.05
New York State E&G	2,734	172,658	3,329	63,152	1,218	5.19
Niagara Mohawk	1,036	337,960	7,627	326,216	7,362	4.43
Orange & Rockland (includes Power Pick)	117	24,622	694	210,445	5,931	3.55
Rochester G&E	1,141	77,886	1,476	68,262	1,294	5.28
Composite	6,473	$ 720,276	14,382	$ 111,274	2,222	5.01¢
			- - - Sales for Resale - - -			
Central Hudson	5	$ 11,795	256			4.61¢
Consolidated Edison	1	40,456	2			NA
New York State E&G	8	156,607	3,001			5.22
Niagara Mohawk	167	152,636	3,076			4.96
Orange & Rockland	3	21,630	284			7.62
Rochester G&E	10	166,965	3,406			4.90
Composite	194	$ 550,089	10,025			5.49¢
			- - - All Other Sales of Electricity - - -			
Central Hudson	3,756	$ 31,706	396			8.01¢
Consolidated Edison	4,124	51,328	673			7.63
New York State E&G	13,666	128,048	1,645			7.78
Niagara Mohawk	4,751	32,396	134			24.18
Orange & Rockland	564	12,161	115			10.57
Rochester G&E	2,993	34,833	556			6.26
Composite	29,854	$ 290,472	3,519			8.25¢

NA Not available.

1 Excludes sales by Long Island Power Authority (formerly Long Island Lighting Company).

2 Excludes Other Operating Revenue.

3 Excludes Expansion and Replacement sales made by the New York Power Authority.

SOURCE: New York State Department of Public Service.

TABLE L-22

Gas Service Companies
Average Annual Bill Data
New York State — 2004

Company	Average Number of Customers	Sales Revenues (thousands)	Mcf Sold (thousands)	Average Annual Bill Per Customer	Average Usage per Customer (Mcf)	Average Revenue per Mcf Sold
			- - - Total[1] - - -			
Brooklyn Union Gas	1,083,547	$ 2,487,985	137,951	$ 2,296	127	$ 18.04
Central Hudson	67,900	116,018	10,439	1,709	154	11.11
Consolidated Edison	1,041,454	1,238,883	126,191	1,190	121	9.82
Corning Natural Gas	11,263	18,259	1,666	1,621	148	10.96
Key Span Gas East	484,851	1,039,723	88,828	2,144	183	11.70
National Fuel Gas Dist. (NY & PA)	679,192	1,066,351	94,917	1,570	140	11.23
New York State E&G	245,601	402,605	36,526	1,639	149	11.02
Niagara Mohawk	481,033	660,362	61,613	1,373	128	10.72
Orange & Rockland	79,970	165,628	18,061	2,071	226	9.17
Rochester G&E	247,136	322,858	33,853	1,306	137	9.54
St. Lawrence	15,363	35,117	20,300	2,286	1,321	1.73
Valley Energy[2]	1,522	2,493	286	1,638	188	8.72
Composite	4,438,833	$ 7,556,282	630,631	$ 1,702	142	$ 11.98
			- - - Residential - - -			
Brooklyn Union Gas	1,072,252	$ 1,138,988	90,284	$ 1,062	84	$ 12.62
Central Hudson	57,814	64,039	5,425	1,108	94	11.80
Consolidated Edison	919,501	664,041	51,457	722	56	12.90
Corning Natural Gas	10,210	11,634	1,155	1,139	113	10.07
Key Span Gas East	430,959	580,329	43,511	1,347	101	13.34
National Fuel Gas Dist. (NY & PA)	641,830	820,230	69,606	1,278	108	11.78
New York State E&G	221,445	251,855	25,510	1,137	115	9.87
Niagara Mohawk	446,024	511,615	50,222	1,147	113	10.19
Orange & Rockland	77,558	111,633	10,317	1,439	133	10.82
Rochester G&E	226,939	262,517	22,926	1,157	101	11.45
St. Lawrence	13,622	10,406	1,871	764	137	5.56
Valley Energy[2]	1,318	1,342	147	1,018	112	9.13
Composite	4,119,472	$ 4,428,629	372,431	$ 1,075	90	$ 11.90
			- - - Commercial[3] - - -			
Brooklyn Union Gas	26,838	$ 217,516	27,014	$ 8,105	1,007	$ 8.05
Central Hudson	8,156	36,151	3,731	4,432	457	9.69
Consolidated Edison	131,340	426,223	41,155	3,245	313	10.36
Corning Natural Gas	823	2,507	268	3,046	326	9.35
Key Span Gas East	44,277	284,266	26,873	6,420	607	10.58
National Fuel Gas Dist. (NY & PA)	39,426	140,402	13,681	3,561	347	10.26
New York State E&G	22,849	70,891	7,134	3,103	312	9.94
Niagara Mohawk	34,581	153,942	16,025	4,452	463	9.61
Orange & Rockland	7,471	32,161	3,103	4,305	415	10.36
Rochester G&E	14,367	39,749	3,972	2,767	276	10.01
St. Lawrence	1,622	7,108	973	4,382	600	7.31
Valley Energy[2]	152	1,231	133	8,099	875	9.26
Composite	331,902	$ 1,412,147	144,062	$ 4,255	434	$ 9.80
			- - - Industrial[3] - - -			
Brooklyn Union Gas	10,803	$ 87,555	10,874	$ 8,105	1,007	$ 8.05
Central Hudson	293	4,838	531	16,512	1,812	9.11
Consolidated Edison	97	6,217	1,338	64,093	13,794	4.65
Corning Natural Gas	6	332	32	55,333	5,333	10.38
Key Span Gas East	4,702	30,188	2,854	6,420	607	10.58
National Fuel Gas Dist. (NY & PA)	1,078	20,724	2,823	19,224	2,619	7.34
New York State E&G	472	13,573	1,960	28,756	4,153	6.93
Niagara Mohawk	142	3,769	488	26,542	3,437	7.72
Orange & Rockland	90	18,193	3,082	202,144	34,244	5.90
Rochester G&E	483	3,830	409	7,930	847	9.36
St. Lawrence	7	3,187	470	455,286	67,143	6.78
Composite	18,173	$ 192,406	24,861	$ 10,587	1,368	$ 7.74
			- - - Sales for Resale - - -			
Central Hudson		$ 720	153			$ 4.71
Consolidated Edison	1	2,895	459			6.31
Corning Natural Gas	1	2,318	350			6.62
Key Span Gas East	2	48,579	20,976			2.32
National Fuel Gas Dist. (NY & PA)	14	115,816	18,646			6.21
New York State E&G	—	17,236	4,405			3.91
Orange & Rockland	1	5,093	1,559			3.27
Composite	19	$ 192,658	46,548			$ 4.14
			- - - All Other Sales - - -			
Brooklyn Union Gas	4,637	$ 72,311	12,373			$ 5.84
Central Hudson	702	9,452	1,046			9.04
Consolidated Edison	3,006	118,650	10,141			11.70
Corning Natural Gas	51	141	15			9.24
New York State E&G	1,578	14,772	1,771			8.34
Rochester G&E	612	3,973	420			9.46
Composite	10,586	$ 219,299	25,767			$ 8.51

NOTE: See Glossary on page 520 for explanation of abbreviations.

— Represents zero.

1 Excludes Other Operating Revenues (including Transportation).

2 Valley Energy purchased the Waverly Gas operations of NUI in 2001.

3 Excludes transportation and off-system sales that were reported as commercial or industrial sales of gas.

SOURCE: New York State Department of Public Service, Office of Accounting and Finance.

TABLE L-23

New York Independent System Operator Electric Energy Load and Capacity Schedule 2006-2015

(Kilowatts)

New York Control Area (NYCA)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
					- - - Summer Capability - - -					
Total Capability	40,522,213	40,261,913	38,816,113	38,816,113	38,823,113	38,823,113	38,823,113	38,823,113	38,823,113	38,823,113
NYCA Capability	40,747,213	40,486,913	39,121,113	39,121,113	39,121,113	39,121,113	39,121,113	39,121,113	39,121,113	39,121,113
Steam Turbine (Oil)	1,649,200	1,649,200	1,649,200	1,649,200	1,649,200	1,649,200	1,649,200	1,649,200	1,649,200	1,649,200
Steam Turbine (Oil & Gas)	9,073,700	9,073,700	9,073,700	8,119,900	8,119,900	8,119,900	8,119,900	8,119,900	8,119,900	8,119,900
Steam Turbine (Gas)	1,066,600	1,066,600	1,066,600	1,066,600	1,066,600	1,066,600	1,066,600	1,066,600	1,066,600	1,066,600
Steam Turbine (Coal)	3,596,900	3,596,900	3,241,600	2,829,600	2,829,600	2,829,600	2,829,600	2,829,600	2,829,600	2,829,600
Steam Turbine (Wood)	38,800	38,800	38,800	38,800	38,800	38,800	38,800	38,800	38,800	38,800
Steam Turbine (Refuse)	263,716	263,716	263,716	263,716	263,716	263,716	263,716	263,716	263,716	263,716
Steam (PWR1 Nuclear)	2,543,500	2,543,500	2,638,500	2,638,500	2,638,500	2,638,500	2,638,500	2,638,500	2,638,500	2,638,500
Steam (BWR2 Nuclear)	2,610,000	2,610,000	2,610,000	2,610,000	2,610,000	2,610,000	2,610,000	2,610,000	2,610,000	2,610,000
Pumped Storage Hydro	1,408,700	1,408,700	1,408,700	1,408,700	1,408,700	1,408,700	1,408,700	1,408,700	1,408,700	1,408,700
Internal Combustion	118,582	118,582	118,582	118,582	118,582	118,582	118,582	118,582	118,582	118,582
Conventional Hydro	4,487,984	4,487,984	4,487,984	4,487,984	4,487,984	4,487,984	4,487,984	4,487,984	4,487,984	4,487,984
Combined Hydro	7,041,304	8,041,304	8,041,304	8,041,304	8,041,304	8,041,304	8,041,304	8,041,304	8,041,304	8,041,304
Jet Engine (Oil)	526,800	526,800	526,800	526,800	526,800	526,800	526,800	526,800	526,800	526,800
Jet Engine (Gas & Oil)	172,600	172,600	172,600	172,600	172,600	172,600	172,600	172,600	172,600	172,600
Combustion Turbine (Oil)	1,414,100	1,414,100	1,414,100	1,414,100	1,414,100	1,414,100	1,414,100	1,414,100	1,414,100	1,414,100
Combustion Turbine (Oil & Gas)	1,428,000	1,428,000	1,428,000	1,428,000	1,428,000	1,428,000	1,428,000	1,428,000	1,428,000	1,428,000
Combustion Turbine (Gas)	1,284,400	1,284,400	1,284,400	1,284,400	1,284,400	1,284,400	1,284,400	1,284,400	1,284,400	1,284,400
Wind	46,647	46,647	46,647	46,647	46,647	46,647	46,647	46,647	46,647	46,647
Other	680	680	680	680	680	680	680	680	680	680
Special Case Resources — SCR[3]	975,000	975,000	975,000	975,000	975,000	975,000	975,000	975,000	975,000	975,000
Additions	1,000,000	—	—	—	—	—	—	—	—	—
Reratings	—	95,000	—	—	—	—	—	—	—	—
Retirements	—	-355,300	-1,365,800	—	—	—	—	—	—	—
Purchases[4]	80,000	80,000	—	—	—	—	—	—	—	—
Sales[4]	-305,000	-305,000	-305,000	-305,000	-298,000	-298,000	-298,000	-298,000	-298,000	-298,000
Base Forecast										
Peak Load	32,400,000	32,840,000	33,330,000	33,770,000	34,200,000	34,580,000	34,900,000	35,180,000	35,420,000	35,670,000
Resource Capability	—	—	—	—	—	—	—	—	—	—
Required Capability	38,232,000	38,751,200	39,329,400	39,848,600	40,356,000	40,804,400	41,182,000	41,512,400	41,795,600	42,090,600
Actual Reserve kW	32,400,000	32,840,000	33,330,000	33,770,000	34,200,000	34,580,000	34,900,000	35,180,000	35,420,000	35,670,000
Reserve Requirement	5,832,000	5,911,200	5,999,400	6,078,600	6,156,000	6,224,400	6,282,000	6,332,400	6,375,600	6,420,600
Reserve Margin	25.07%	22.60%	16.46%	14.94%	13.52%	12.27%	11.24%	10.36%	9.61%	8.84%
Proposed Resource Additions	324,500	2,304,100	4,394,100	4,974,100	5,338,800	5,878,800	5,517,800	5,517,800	5,517,800	5,517,800
Adjusted Reserve Margin	26.07%	29.62%	29.64%	29.67%	29.13%	29.27%	27.05%	26.04%	25.19%	24.31%

(Continued on the following page)

TABLE L-23 (continued)

New York Independent System Operator Electric Energy Load and Capacity Schedule 2006-2015

(Kilowatts)

New York Control Area (NYCA)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
					- - - Winter Capability - - -					
Total Winter Resource Capability	41,577,827	41,143,127	39,933,427	39,933,427	39,940,427	39,940,427	39,940,427	39,940,427	39,940,427	39,940,427
NYCA Resource Capability	41,803,827	41,369,127	40,239,427	40,239,427	40,239,427	40,239,427	40,239,427	40,239,427	40,239,427	40,239,427
Steam Turbine (Oil)	1,688,600	1,688,600	1,688,600	1,688,600	1,688,600	1,688,600	1,688,600	1,688,600	1,688,600	1,688,600
Steam Turbine (Oil & Gas)	9,093,900	9,093,900	9,093,900	8,139,700	8,139,700	8,139,700	8,139,700	8,139,700	8,139,700	8,139,700
Steam Turbine (Gas)	1,064,900	1,064,900	1,064,900	1,064,900	1,064,900	1,064,900	1,064,900	1,064,900	1,064,900	1,064,900
Steam Turbine (Coal)	3,639,700	3,469,700	3,035,000	2,859,500	2,859,500	2,859,500	2,859,500	2,859,500	2,859,500	2,859,500
Steam Turbine (Wood)	38,700	38,700	38,700	38,700	38,700	38,700	38,700	38,700	38,700	38,700
Steam Turbine (Refuse)	256,913	256,913	256,913	256,913	256,913	256,913	256,913	256,913	256,913	256,913
Steam (PWR1 Nuclear)	2,557,700	2,652,700	2,652,700	2,652,700	2,652,700	2,652,700	2,652,700	2,652,700	2,652,700	2,652,700
Steam (BWR2 Nuclear)	2,629,400	2,629,400	2,629,400	2,629,400	2,629,400	2,629,400	2,629,400	2,629,400	2,629,400	2,629,400
Pumped Storage Hydro	1,417,100	1,417,100	1,417,100	1,417,100	1,417,100	1,417,100	1,417,100	1,417,100	1,417,100	1,417,100
Internal Combustion	120,543	120,543	120,543	120,543	120,543	120,543	120,543	120,543	120,543	120,543
Conventional Hydro	4,605,950	4,605,950	4,605,950	4,605,950	4,605,950	4,605,950	4,605,950	4,605,950	4,605,950	4,605,950
Combined Hydro	8,387,894	8,887,894	8,887,894	8,887,894	8,887,894	8,887,894	8,887,894	8,887,894	8,887,894	8,887,894
Jet Engine (Oil)	648,100	648,100	648,100	648,100	648,100	648,100	648,100	648,100	648,100	648,100
Jet Engine (Gas & Oil)	202,700	202,700	202,700	202,700	202,700	202,700	202,700	202,700	202,700	202,700
Combustion Turbine (Oil)	1,813,400	1,813,400	1,813,400	1,813,400	1,813,400	1,813,400	1,813,400	1,813,400	1,813,400	1,813,400
Combustion Turbine (Oil & Gas)	1,755,100	1,755,100	1,755,100	1,755,100	1,755,100	1,755,100	1,755,100	1,755,100	1,755,100	1,755,100
Combustion Turbine (Gas)	1,409,700	1,409,700	1,409,700	1,409,700	1,409,700	1,409,700	1,409,700	1,409,700	1,409,700	1,409,700
Wind	47,847	47,847	47,847	47,847	47,847	47,847	47,847	47,847	47,847	47,847
Other	680	680	680	680	680	680	680	680	680	680
Additions	500,000	—	—	—	—	—	—	—	—	—
Reratings	95,000	—	—	—	—	—	—	—	—	—
Retirements	-170,000	-434,700	-1,129,700	—	—	—	—	—	—	—
Purchases[4]	80,000	80,000	—	—	—	—	—	—	—	—
Sales[4]	-306,000	-306,000	-306,000	-306,000	-299,000	-299,000	-299,000	-299,000	-299,000	-299,000
Base Forecast										
Peak Load	25,670,000	25,980,000	26,290,000	26,550,000	26,790,000	26,990,000	27,160,000	27,300,000	27,410,000	27,550,000
Resource Capability	41,577,827	41,143,127	39,933,427	39,933,427	39,940,427	39,940,427	39,940,427	39,940,427	39,940,427	39,940,427
Required Capability	38,232,000	38,751,200	39,329,400	39,848,600	40,356,000	40,804,400	41,182,000	41,512,400	41,795,600	42,090,600
Actual Reserve kW	15,907,827	15,163,127	13,643,427	13,383,427	13,150,427	12,950,427	12,780,427	12,640,427	12,530,427	12,390,427
Reserve Requirement	12,562,000	12,771,200	13,039,400	13,298,600	13,566,000	13,814,400	14,022,000	14,212,400	14,385,600	14,540,600
Reserve Margin	61.97%	58.36%	51.90%	50.41%	49.09%	47.98%	47.06%	46.30%	45.71%	44.97%

NOTE: See Glossary on page 520 for explanation of abbreviations.

— Represents zero.

1 Pressurized Water Reactor.

2 Boiling Water Reactor.

3 Special Case Resources (SCR) are loads capable of being interrupted upon demand and distributed generators that are not visible to the Independent System Operator's Market Information System and that are subject to special rules in order to participate as installed Capacity suppliers.

4 Purchases and Sales are with neighboring Control Areas.

SOURCE: New York Independent System Operator, *The New York Independent System Operator 2005 Load and Capacity Data*.

TABLE L-24

New York Independent System Operator Long-Term Electric Energy Forecast
2004 Baseline and 2004-15 Forecast

	Energy (GWh)			Summer Peak (MW)			Winter Peak (MW)[1]		
Year	Low	Base	High	Low	Base	High	Low	Base	High
2004		160,211			28,433			25,541	
2004 Weather Normalized		161,257			31,400			25,250	
2005a	163,972	164,050	165,624	31,891	31,960	32,204	25,339	25,350	25,534
2006	166,538	166,790	168,813	32,242	32,400	32,762	25,642	25,670	25,910
2007	168,509	169,400	172,399	32,572	32,840	33,357	25,874	25,980	26,330
2008	170,373	172,100	175,862	32,934	33,330	33,961	26,093	26,290	26,733
2009	171,747	174,290	178,811	33,250	33,770	34,508	26,253	26,550	27,076
2010	173,103	176,340	181,634	33,576	34,200	35,057	26,412	26,790	27,402
2011	174,193	178,060	184,108	33,861	34,580	35,556	26,539	26,990	27,687
2012	175,029	179,520	186,292	34,083	34,900	35,987	26,636	27,160	27,938
2013	175,633	180,710	188,196	34,267	35,180	36,372	26,707	27,300	28,157
2014	176,083	181,740	189,915	34,413	35,420	36,709	26,759	27,410	28,353
2015	176,635	182,880	191,742	34,584	35,670	37,063	26,823	27,550	28,562
				- - - Annual Average Growth Rate - - -					
1994-2004 (Actual)	1.01%				1.41%			0.79%	
2004-2015 (Actual)	0.89%				1.80%			0.45%	
2004-2015 (Normal)	0.83%				0.88%			0.55%	

NOTE: See Glossary on page 520 for explanation of abbreviations.

2004 Weather-normalized Summer peak is 31,410 MW; 2004-05 normalized Winter peak is 25,250 MW; normalized annual usage is 161,257 GWh. Growth rates are shown based on both 2004 actual and 2004 normal loads.

a Winter 2005 is the period from November 2005 through April 2006.

1 Winter peaks run from November of previous year through April of current.

SOURCE: New York Independent System Operator, *The New York Independent System Operator 2004 Load and Capacity Data*.

TABLE L-25

Energy Conversion Factors
New York State — 2004

	Approximate Heat Content of Various Fuels	
Fuel Type	Units	2004
Wood	Btu/cord	20,000,000
Coal	Btu/Short ton	20,754,000
Natural Gas	Btu/Cubic Foot	
Electric Utility Consumption		1,025
Nonutility Consumption		1,033
Electricity Consumption	Btu/kWh	3,412
Petroleum Products	Btu/barrel	
Distillate Fuel Oil		5,825,000
Ethanol		3,539,000
Jet Fuel, Kerosene Type		5,670,000
Kerosene		5,670,000
Motor Gasoline		5,215,000
LPG (propane)		3,620,000
Residual Fuel Oil		6,287,000

NOTE: See Glossary on page 520 for explanation of abbreviations.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-26

Oil and Gas Drillings and Completions
New York State — 1966-2004

Year	Drillings		Completions										
	Total Started	Waiting on Completion	Total[1]	Oil	Gas	Dry Holes	Service	Disposal	Injection	Solution Mining	Storage	Stratigraphic	Geothermal
1966	66		25	6	19	41	—						
1967	238		203	163	13	35	27						
1968	120		107	83	10	13	14						
1969	139		126	88	13	13	25						
1970	112		102	60	8	10	24			10			
1971	125		114	79	10	11	24			1			
1972	140		131	91	20	9	15			5			
1973	204		182	123	39	22	20			—			
1974	495		450	140	253	45	57			—			
1975	496		460	149	267	36	44			—			
1976	537		490	126	324	47	40			—			
1977	538		470	119	256	68	95			—			
1978	482		456	161	224	26	71			—			
1979	623e		593	172e	410e	30	11e			—			
1980	589		579	120	456	10	—			3	—		
1981	724		705	123	560	19	13			9	—		
1982	703		690	89	590	13	2			9	—		
1983	776		722	55	635	20	1	1	—	8	2	—	
1984	739	127	791	148	605	29	—	1	—	7	1	—	
1985	556	155	544	119	392	25	1	—	—	7	—	—	
1986	311	106a	345	45	278	13	—	—	—	7	1	1	
1987	217	55a	318	20	242	17	—	1	1	25	12	—	
1988	211	25	205	15	164	18	1	—	—	6	—	1	
1989	217	80	245	28	181	12	—	—	14	8	—	2	
1990	221	38	223	43	148	16	—	—	1	12	—	3	
1991	213	12	215	51	133	17	1	—	—	1	12	—	
1992	205	31	192	71	75	17	1	—	—	15	13	—	
1993	134	b	165	26	96	19	4	—	2	12	5	2	
1994	133	b	139	34	51	7	—	—	—	6	—	41	
1995	111	b	110	20	31	2	2	—	14	14	7	20	
1996	146	b	125	70	35	4	2	2	—	4	8	—	
1997	91	b	66	29	21	3	—	—	—	12	1	—	
1998	74	b	90	7	41	20	—	—	—	19	3	—	
1999	101	b	87	25	28	21	—	—	—	7	—	6	
2000	128	b	159	17	112	16	—	—	—	13	—	1	
2001	137	b	171	24	97	24	—	—	—	15	5	1	5
2002	108	b	98	12	38	28	—	—	—	9	10	—	1
2003	137	b	115	28	31	23	—	—	—	11	3	15	4
2004	181	b	188	56	70	28	—	—	—	15	1	9	6

NOTE: Detail may not add to total due to rounding.

— Represents zero.

r Revised.

e Estimated.

a Includes wells started to be drilled in previous years.

b This statistic has been discontinued.

1 Completions Totals do not include the numbers in "Dry Holes."

SOURCE: New York State Department of Environmental Conservation, Division of Mineral Resources.

TABLE L-27

Oil and Gas Reserves
New York State — 1966-2004

Year	Gas Reserves[1] (MMcf) Total	In Situ	In Storage Reservoirs	Oil Reserves[1] (Mbbl)
1966	120,781	NA	NA	10,182
1967	121,086	NA	NA	14,578
1968	124,087	NA	NA	13,046
1969	121,000	NA	NA	11,790
1970	117,907	26,104	91,803	10,596
1971	115,705	42,116	73,589	9,772
1972	139,184	51,240	87,944	9,246
1973	136,842	37,851	98,991	8,288
1974	165,546	67,355	98,191	10,898
1975	215,843	99,755	116,088	10,024
1976	236,029	126,541	109,488	9,168
1977	247,303	133,199	114,104	9,094
1978	262,711	147,323	115,388	8,996
1979	282,520	159,806	122,714	9,642
1980	281,000	170,431	110,569	9,419
1981	277,000	157,402	119,598	9,070
1982	330,472	186,180	144,292	8,739
1983	363,895	229,406	134,489	11,788
1984	395,845	251,880	143,965	11,200
1985	398,906	260,431	138,475	10,707
1986r	404,420	263,479	140,941	9,854
1987	406,871	266,508	140,363	10,425
1988	407,337	262,518	144,819	2,000
1989r	401,859	270,074	131,785	2,441
1990r	408,310	266,410	141,900	2,001
1991r	416,014	265,320	150,694	2,100
1992r	403,788	252,988	150,800	2,962
1993r	399,243	245,843	153,400	2,900
1994r	387,067	232,867	154,200	2,800
1995	378,584	219,084	159,500	2,850
1996	376,622	205,522	171,100	2,900
1997	347,042	192,546	154,496	2,645
1998r	354,454	189,342	165,112	2,428
1999a	222,370	65,160	157,210	846
2000	243,586	96,273	147,313	783
2001r	288,767	124,454	164,313	1,189
2002	335,830	173,731	162,099	1,069
2003	340,495	163,559	176,936	1,066
2004	370,439	208,707	161,732	1,056

NOTE: See Glossary on page 520 for explanation of abbreviations.

NA Not available.

r Revised.

a Reserves revised based on updated estimation methods.

1 Proven reserves at year end.

SOURCE: New York State Department of Environmental Conservation, Division of Mineral Resources.

TABLE L-28

Nuclear Power Plants — Net Generation and Summer Capability United States by State — 2003

State	Units	Net Nuclear Generation (million kWh)	Net Summer Capability (million kWh)
United States	104	763,733	99.21
Alabama	5	31,677	4.97
Alaska	—	—	—
Arizona	3	28,581	3.83
Arkansas	2	14,689	1.84
California	4	35,594	4.32
Colorado	—	—	—
Connecticut	2	16,078	2.00
Delaware	—	—	—
District of Columbia	—	—	—
Florida	5	30,979	3.90
Georgia	4	33,257	4.04
Hawaii	—	—	—
Idaho	—	—	—
Illinois	11	94,733	11.47
Indiana	—	—	—
Iowa	1	3,988	0.56
Kansas	1	8,890	1.17
Kentucky	—	—	—
Louisiana	2	16,126	2.07
Maine	—	—	—
Maryland	2	13,691	1.70
Massachusetts	1	4,978	0.68
Michigan	4	27,954	3.97
Minnesota	3	13,414	1.61
Mississippi	1	10,902	1.26
Missouri	1	9,700	1.14
Montana	—	—	—
Nebraska	2	7,997	1.23
Nevada	—	—	—
New Hampshire	1	9,276	1.16
New Jersey	4	29,709	3.91
New Mexico	—	—	—
New York	6	40,679	5.03
North Carolina	5	40,907	4.78
North Dakota	—	—	—
Ohio	2	8,475	2.11
Oklahoma	—	—	—
Oregon	—	—	—
Pennsylvania	9	74,361	9.18
Rhode Island	—	—	—
South Carolina	7	50,418	6.47
South Dakota	—	—	—
Tennessee	3	24,153	3.40
Texas	4	33,437	4.77
Utah	—	—	—
Vermont	1	4,444	0.51
Virginia	4	24,816	3.47
Washington	1	7,615	1.11
West Virginia	—	—	—
Wisconsin	3	12,215	1.57
Wyoming	—	—	—

NOTE: Detail may not add to totals due to rounding.

— Represents zero.

SOURCE: *Statistical Abstract of the United States, 2006*, www.census.gov/prod/2004pubs/03statab/energy.pdf (last viewed July 29, 2005); United States Energy Information Administration, *Electric Power Annual, 2002*.

Barrel. Liquid volume measure equal to 42 gallons, commonly used in expressing quantities of petroleum or petroleum products.

Biofuels. Nonfossil biomass energy sources that are essentially unprocessed; they are burned or gasified to produce thermal energy or electricity. Examples are fuel wood, waste wood, garbage, and crop waste. Different mixes of biofuels are used by each consuming sector. The residential sector burns wood for space heating. The transportation sector uses ethanol as an additive to motor gasoline. Some electric generation uses wood or municipal waste as co-firing or primary fuels.

Bituminous Coal. Often referred to as "soft coal." It is more volatile than anthracite and has a higher heat content than lignite. It is the most predominantly used coal and has a heating value of 11,450 to 13,010 Btu per pound.

British Thermal Unit (Btu). The quantity of heat necessary to raise the temperature of one pound of water one degree Fahrenheit. Because different energy types use different standards of measurement, they are often converted to Btu to enable comparison. One Btu is equal to 252 calories of heat.

Coke. Primarily used in the steel-making process, a porous, solid residue resulting from the incomplete combustion of coal in a closed chamber or oven with a limited supply of air.

Commercial Sector. That sector of the economy which engages primarily in the sale of services and needs energy for uses other than those involving industrial uses, electric utilities and residential uses. Included are apartment buildings, office buildings, governmental units, schools, institutions and churches.

Crude Oil. A mixture of hydrocarbons that exist in the liquid phase in natural underground reservoirs. Refined crude oil produces a number of different fuels, such as residual fuel, motor gasoline and distillate.

Degree Days, Cooling. This statistic is a measure of temperature as it affects energy demand for space cooling. It is similar to heating degree-days although the relationship is not as precise. If the average of a day's high and low temperature extremes are below 65ºF, then the degree-days for that day are taken to be zero; otherwise, they are equal to the difference between the average and 65ºF. A larger number of cooling degree-days implies hotter temperatures.

Degree Days, Heating. This statistic is a measure of temperature as it affects energy demand for space heating. It is based on the fact that most buildings require no heat to maintain an inside temperature of at least 70ºF when the daily mean is 65ºF or higher. If the average of a day's high and low temperature extremes are above 65ºF, the degree-days for that day are taken to be zero; otherwise, they are equal to the difference between the average and 65ºF. A larger number of heating degree-days implies colder temperatures.

Distillate Fuel Oil. Usually means "home heating oil." Its products are actually No. 1 and No. 2 heating oils, diesel fuels and No. 4 fuel oil. These products are used primarily for space heating, on-highway and off-road diesel engine fuel (including railroad engine fuel) and electric power generation.

Electricity Generated With Nonfossil Fuels. Includes all electrical generation produced by nuclear, hydro and other sources such as wood, waste products, geothermal and solar sources.

Energy Requirements. There are nearly 18 million New Yorkers and we consumed 145 billion kilowatt hours of electricity in 1991. It is projected that we will demand 167 billion kilowatt hours in the year 2008. This projection of future energy requirements considers energy conservation, regulatory influences, population, weather, societal and economic influences.

Energy Sources. Electrical power is provided by converting the energy of an energy resource (e.g., coal, oil, etc.) into electricity. There are a variety of raw energy resources, which utilities select to use for conversion to electricity. The selection is made based on many factors such as: geographical location, source, availability and cost of energy source, environmental criteria, and population density.

Fossil Fuels. Any naturally occurring fuel of an organic nature such as coal, oil and natural gas derived from the remains of ancient plants and animals. These sometimes are called conventional fuels or conventional energy sources (as compared with solar power, wind energy, etc.) because the bulk of today's energy is derived from them and most of the industrial economy is based upon them.

Gallon (gal). A unit of volume, the U.S. gallon contains 3.785 liters and is .083 times the imperial gallon. One U.S. gallon of water weighs 8.3 pounds.

Generating Capacity. This is the total output measured in watts that all the generators installed in the system can produce. Therefore, a reserve, the difference between the total installed generating capacity and the peak load, is required. The desired reserve is based on reliability and economic considerations.

Gigawatt (GW). 1,000,000 kilowatts, or 1 billion watts.

Gigawatt-hour (GWh). One billion watthours.

Hydro-. A prefix used to identify a type of generating station, power or energy output in which the prime mover is water.

Industrial Sector. That section of the economy involved in mining, construction or manufacturing.

Jet Fuel. Includes both naphtha-type and kerosene-type jet fuel meeting standards for use in aircraft turbine engines. Some jet fuel is used for generating electricity in gas turbines.

Kerosene. A petroleum middle distillate having burning properties suitable for use as an illuminant when burned in wick lamps. Kerosene is also used in space heaters, cooking stoves and water heaters.

Kilowatt (kW). One thousand watts, usually the yardstick for measurement of generator capacity, (e.g., a 500,000 KW generator). One kW (Kilowatt) equals 1,000 watts.

Kilowatt Hour (kWh). One thousand watt-hours. The electric energy needed to operate a 100-watt bulb for 10 hours.

Liquefied petroleum gases (LPG). Propane, propylene, butane and propane-butane mixtures produced at a refinery or natural gas-processing plant, including plants that fractionate raw natural gas-processing plant liquids. These are derived by refining and processing natural gas, crude oil or unfinished oil.

Megawatt (MW). One megawatt equals 1,000 kW or 1,000,000 watts. It is the generating capacity needed to light 10,000 one-hundred watt light bulbs or to satisfy the varied electrical needs of about 1,000 people. Three megawatts is

approximately the capacity required to satisfy the electrical needs of a large suburban shopping mall. An office building the size of the United Nations in New York City requires 7 megawatts. On a typical weekday, a city the size of Albany, NY, requires about 440 megawatts of capacity to meet the industrial, commercial and residential needs of her citizens.

Megawatt-hour (MWh). One million watthours.

Motor gasoline. A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives that have been blended to form a fuel suitable for use in spark-ignition engines. Included are leaded and unleaded and refinery products.

Natural Gas. A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase ("gas well" gas) or in solution with crude oil ("oil well" gas) in natural underground reservoir conditions. It comes from the ground with or without accompanying crude oil and is generally much higher in heat content than manufactured gas. It is used as the raw material in the petrochemical industry for the manufacturing of fertilizer and cellophane.

Natural Gas Liquids. Products obtained from processing natural gas at natural gas processing plants, including natural gasoline plants, cycling plants and fractionators. Products obtained include ethane, liquefied petroleum gases (propane, butane and propane-butane mixtures), isopentane, natural gasoline, plant condensate and other minor quantities of finished products such as motor gasoline, special naphthas, jet fuel, kerosene and distillate fuel oil.

Nuclear. The energy liberated by fission, fusion, or radioactive decay.

Peak Load. Peak load is a measurement of the greatest amount of electrical power in watts demanded during a specific period, e.g., hourly, daily, monthly and yearly. It is comparable to the "Rush Hour" demands on our transportation systems.

Petroleum. A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oil, refined petroleum products, natural gas plants, liquids and nonhydrocarbon compounds blended into finished petroleum products.

Propane. A colorless, highly volatile hydrocarbon that is readily recovered as a liquefied gas at natural gas processing plants and refineries. It is used primarily for residential and commercial heating and cooling and also as a fuel for transportation and industrial uses, including petrochemical feedstocks. Propane is the first product refined from crude petroleum.

Refined Petroleum. Products obtained from processing crude oil, unfinished oils, natural gas liquid and miscellaneous hydrocarbon compounds. Includes aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, ethane, liquefied petroleum gases, petrochemical feedstocks, special naphthas, lubricants, paraffin wax, petroleum coke, asphalt, road oil, still gas and miscellaneous products.

Residential Sector. Includes private households. Specifically included are the following end-uses: space heating, space cooling, water heating, cooking, lighting, clothes drying and refrigeration.

Residual Fuel. The heavier oils that remain after distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as No. 5 and No. 6 fuel oil, heavy diesel oil, Navy Special Fuel Oil, Bunker C Oil and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for production of electric power, space heating, vessel bunkering and various industrial purposes.

Therm. One therm is equal to 100,000 Btu's (see British Thermal Units).

Ton. In the United States, Canada, and Union of South Africa, a unit of weight is equal to 2,000 pounds. The American ton is often called the short ton. The metric ton equals 2,204.62 pounds.

Transmission Lines. To transport electricity from the generating stations to the consumer, a vast network of high and low voltage wires and cables is required along with supporting towers, switchgear, transformers, lightning and grounding cables, ground rods, etc. Some conductors are placed underground but most transmission is accomplished by overhead wire conductors.

Watt. The unit of measure for electric power or rate of doing work. It is the rate of energy transfer equivalent to one ampere flowing under a pressure of one volt at unity power factor. It is analogous to horsepower or foot-pounds per minute of mechanical power. One horsepower is equivalent to approximately 746 watts.

Abbreviations

M	**Thousand or 10^3**
MM	**Million or 10^6**
B	**Billion or 10^9**
T	**Trillion or 10^{12}**
kWh	**Kilowatt-hour**
MWh	**Megawatt-hour or thousand kWh**
GWh	**Gigawatt-hour or million kWh**
cf	**Cubic foot**
Mcf	**Thousand cubic feet**
Bcf	**Billion cubic feet**
bbl	**Barrel**
Mbbl	**Thousand barrels**
MTons	**Thousand tons**
Btu	**British Thermal Unit**
LPG	**Liquefied petroleum gas**
MGD	**Million gallons per day**