



Section L

Energy and Utilities

Energy Sources, Requirements
and Supply

Generation of Electricity

Energy Production
and Capacity

Energy Consumption

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Customers, Usage, Revenues

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TABLE L-1
Electric Energy Production — 1990, 1995 and 1998 and
Net Summer Capacity — 1995 and 1999(a)
United States by State

State	Net Generation (billion Kwh)			Net Summer Capacity (million Kwh)	
	1990(r)	1995	1999	1995	1999
United States	2,808.5	2,994.5	3,173.7	706.1	639.3
Alabama	76.2	99.6	113.9	20.5	21.5
Alaska	4.5	4.8	4.6	1.7	1.7
Arizona	62.3	69.0	83.1	15.2	15.1
Arkansas	37.1	39.5	44.1	9.6	9.3
California	114.5	121.9	87.9	43.3	24.3
Colorado	31.3	32.7	36.2	6.6	7.3
Connecticut	32.2	26.9	20.5	6.7	2.9
Delaware	7.1	8.3	6.2	2.2	2.3
District of Columbia	0.4	0.2	0.2	0.8	0.8
Florida	123.6	147.2	166.9	35.9	36.5
Georgia	97.6	102.0	110.5	22.3	23.3
Hawaii	8.0	6.2	6.5	1.6	1.6
Idaho	8.6	10.1	12.5	2.6	2.6
Illinois	127.0	145.2	149.8	33.1	17.0
Indiana	97.7	105.2	114.2	20.7	20.4
Iowa	29.0	33.5	37.0	8.2	8.4
Kansas	33.9	38.2	42.0	9.7	10.0
Kentucky	73.8	86.2	81.7	15.4	14.7
Louisiana	58.2	65.6	64.8	17.0	16.3
Maine	9.1	2.7	1.2	2.4	0.1
Maryland	31.5	44.7	49.3	11.0	11.0
Massachusetts	36.5	27.0	4.4	9.3	2.2
Michigan	89.1	92.5	87.9	22.0	22.4
Minnesota	41.6	42.5	44.2	8.9	9.0
Mississippi	22.9	26.4	32.2	7.2	6.8
Missouri	59.0	65.4	73.5	15.7	16.8
Montana	25.7	25.4	27.6	4.9	3.0
Nebraska	21.6	25.3	30.0	5.5	5.8
Nevada	19.3	20.0	26.5	5.6	5.4
New Hampshire	10.8	13.9	13.9	2.5	2.3
New Jersey	36.5	27.1	38.9	13.8	12.1
New Mexico	28.5	29.4	31.7	5.1	5.3
New York	128.7	101.2	97.0	32.1	17.7
North Carolina	79.8	96.1	109.9	20.6	21.2
North Dakota	26.8	28.8	31.3	4.5	4.7
Ohio	126.5	137.9	140.9	27.4	27.1
Oklahoma	45.1	48.0	50.3	12.9	12.9
Oregon	49.2	44.0	51.7	10.4	10.3
Pennsylvania	165.7	168.9	161.6	33.7	25.3
Rhode Island	0.6	0.7	b	0.4	b
South Carolina	69.3	78.4	87.3	16.7	17.7
South Dakota	6.4	8.8	10.6	3.0	2.9
Tennessee	73.9	82.3	89.7	16.1	17.3
Texas	234.0	261.7	292.5	64.4	65.3
Utah	32.3	32.1	36.1	4.8	5.1
Vermont	5.0	4.8	4.7	1.1	0.8
Virginia	47.2	52.7	65.1	14.3	15.3
Washington	100.5	95.7	112.1	24.3	25.2
West Virginia	77.4	77.3	91.7	14.5	14.5
Wisconsin	45.6	51.0	54.7	11.5	12.1
Wyoming	39.4	39.7	43.0	6.0	6.0

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

r Revised.

— Represents zero.

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

b Represents less than 50 million kWh.

SOURCE: *Statistical Abstract of the United States, 2002*; United States Energy Information Administration, *Electric Power Annual*, *Electric Power Monthly*, August and December issues, and *Inventory of Power Plants in the United States*, annual.

TABLE L-2
Production of Primary Energy Resources
New York State — 1985-2001

Year	Hydro Electricity ¹		Natural Gas		Crude Oil		Biofuel ²	Total Energy Production
	TBtu	GWh	TBtu	MMcf	TBtu	Mbbl	TBtu	TBtu
1985	287.3	26,956	34.1	33,061	6.2	1,071	132.2r	450.8r
1986	311.1	29,480	35.8	34,796	4.9	853	118.2r	470.1r
1987	288.5r	27,546	30.5	29,549	4.1	710	110.9r	433.9r
1988	247.5	23,994	28.9	28,125	3.3	567	109.8r	389.5r
1989	250.0r	23,918	26.5	25,673	2.9	496	108.8r	388.2r
1990r	287.2	27,555	25.9	25,112	2.4	417	104.1	419.6
1991r	272.8	26,258	24.1	23,438	2.5	426	105.2	404.6
1992r	287.2	27,281	24.3	23,600	2.4	406	117.7	431.5
1993	302.4	28,479	22.5r	21,929	2.0	341	119.1r	446.0r
1994r	284.0	26,800	22.2	21,551	1.7	299	125.8	433.7
1995r	266.0	24,990	19.8	19,312	1.8	304	135.2	422.8
1996r	300.7	28,055	18.7	18,244	1.8	309	149.7	471.0
1997r	309.2	29,767	16.6	16,189	1.6	276	180.6	508.0
1998r	305.3	28,252	17.1	16,608	1.3	217	142.0	465.7
1999r	241.5	23,643	17.3	16,836	1.1	193	174.9	434.8
2000r	243.0	24,232	18.2	17,752	1.0	181	178.3	440.5
2001p	249.3	24,981	28.4	27,700	1.1	183	195.0	473.7

NOTE: See Glossary on page 480 for explanation of abbreviations.

p Preliminary.

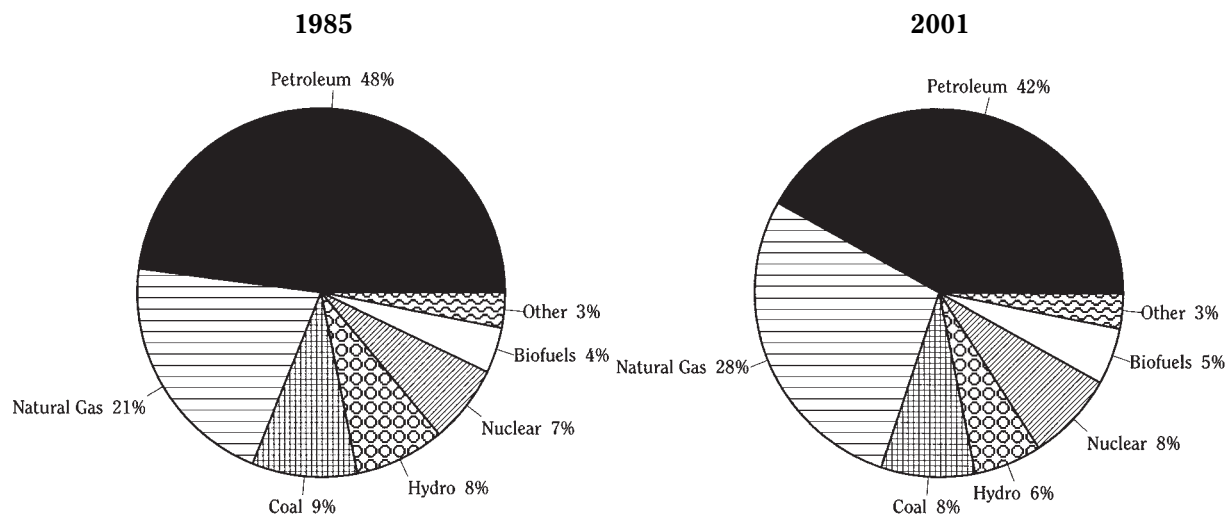
r Revised.

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 — 1985 and 2001



SOURCE: New York State Energy Research and Development Authority.

TABLE L-3
Oil and Gas Production
New York State — 1966-2001

Year	Production		Number of Wells						
	Oil (Mbbls)	Gas (MMcf)	Oil	Gas	Shut-In		Storage	P & A ¹	Water Injection
					Oil and Gas				
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	1,452 ^e	1,512 ^e	352 ^e	763	352	
1979	855	15,500	5,100	1,620 ^e	1,500 ^e	520 ^e	763	117	2,500 ^e
1980	824	15,650	5,220	2,076	1,400 ^e	500 ^e	765	119	3,500 ^e
1981 ^r	869	19,000	5,176	2,636	1,402	726	822	184	3,038 ^a
1982 ^r	831	18,760	5,272	2,969	1,308	996	831	262	2,924 ^e
1983 ^r	902	20,380	4,705	3,489	1,436	995	839	90	2,093
1984 ^r	952	27,000	4,584	4,279	1,475	821	839	182	1,811
1985 ^r	1,071	33,061	4,814	4,794	1,614	891	841	269	2,037
1986 ^r	853	34,796	4,448	5,088	1,677	791	836	471	1,658
1987 ^r	710	29,549	4,228	5,351	1,582	961	845	417	1,376
1988 ^r	567	28,125	4,368	5,328	1,478	870	854	322	1,382
1989 ^r	496	25,673	4,043	5,411	1,775	845	845	260	1,196
1990 ^r	417	25,112	3,906	5,536	1,752	955	854	961	1,274
1991 ^r	426	23,438	3,619	5,757	1,362	707	869	376	875
1992 ^r	406	23,586	3,761	5,866	939	563	865	244	835
1993 ^r	341	22,145	3,783	5,986	1,137	505	865	263	859
1994 ^r	299	21,537	3,670	6,017	1,326	561	876	234	923
1995 ^r	304	18,799	3,208	6,216	1,108	665	866	191	783
1996 ^r	309	18,238	3,438	5,894	1,648	564	868	184	668
1997 ^r	276	16,194	3,446	5,739	1,265	709	867	141	554
1998 ^r	217	16,607	3,739	5,903	1,590	579	885 ^b	169	471
1999 ^r	193	16,836	3,463	5,756	1,165	583	885 ^b	138	223
2000 ^r	181	17,752	2,802	5,747	1,314	843	870 ^b	131	627
2001 ^e	183	27,947	3,072	5,916	1,223	835	877	131	553

NOTE: See Glossary on page 480 for explanation of abbreviations.

NA Not available.

e Estimated.

r Revised.

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 — 1985-2001

Year	Coal		Natural Gas ¹		Petroleum Products		Hydro	
	TBtu	MTons	TBtu	MMcf	TBtu	Mbbl	TBtu	GWh
1985	344.6	13,947	778.4	753,777	1,769.9	315,413	287.3	26,956
1986	305.5	12,202	737.3	715,909	1,901.2	336,888	311.1	29,480
1987	348.5	13,795	780.9	757,211	1,946.2	345,557	288.5	27,546
1988	382.5	15,076	796.8	774,455	2,048.1	362,155	247.5	23,994
1989	401.5	15,858	846.7	821,436	2,035.0	360,342	250.0	23,918
1990	394.9r	15,572	878.1r	851,590	1,874.5r	332,736	287.2	27,555
1991r	398.6	15,657	885.7	860,739	1,746.1	311,473	272.8	26,258
1992	416.4	16,272	1,044.4r	1,015,693	1,657.8r	297,424	287.2r	27,281
1993	377.6	14,825	1,070.4r	1,043,198	1,665.4r	298,762	302.4	28,479
1994	367.6	14,378	1,170.3r	1,140,027	1,585.0r	285,820	284.0r	26,800
1995r	353.3	13,665	1,314.8	1,281,342	1,555.3	282,207	266.1	24,990
1996r	359.5	13,967	1,218.0	1,187,283	1,616.6	292,377	300.7	28,055
1997r	384.6	14,819	1,290.3	1,260,406	1,576.8	286,017	309.2	29,767
1998r	416.4	16,108	1,096.5	1,067,308	1,589.6	287,895	305.3	28,252
1999r	296.9	11,558	1,141.8	1,114,537	1,657.1	299,692	241.5	23,643
2000r	303.6	11,820	1,133.3	1,106,760	1,694.9	305,828	243.0	24,232
2001p	323.4	12,578	1,113.9	1,088,144	1,632.1	296,072	249.3	24,981

Year	Nuclear		Net Imported Electricity		Biofuels ²	Total ³
	TBtu	GWh	TBtu	GWh	TBtu	TBtu
1985r	256.8	24,092	108.2	10,155	123.2	3,668.4
1986r	233.1	22,084	139.3	13,204	118.2	3,745.7
1987r	240.1	22,926	119.1	11,373	110.9	3,834.1
1988	249.4	24,176	103.1	9,994	109.8r	3,937.2r
1989r	238.8	22,846	57.9	5,539	108.8	3,938.9
1990r	246.2	23,623	14.1	1,352	104.1	3,799.1
1991r	295.5	28,448	65.7	6,323	105.2	3,769.6
1992r	254.3	24,155	107.0	10,167	117.7	3,884.8
1993r	285.5	26,889	151.6	14,280	119.1	3,972.1
1994r	309.7	29,231	121.9	11,504	125.8	3,964.3
1995	280.4	26,336	77.8	7,311	135.2	3,982.9
1996	377.6	35,226	51.5	4,806	149.7	4,073.7
1997r	307.2	29,570	-24.5	-2,356	180.6	4,024.2
1998r	338.4	31,314	11.8	1,090	142.0	3,900.0
1999r	378.2	37,019	116.3	11,385	174.9	4,006.7
2000r	315.9	31,508	186.4	18,593	178.3	4,055.6
2001p	308.5	30,921	118.8	11,901	195.0	3,941.0

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

See Glossary on page 480 for explanation of abbreviations.

r Revised.

p Preliminary.

1 Excludes lease, plant and pipeline fuels.

2 Includes primary wood, waste and ethanol.

3 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 — 1985-2001**

Year	Distillate		Residual		Kerosene			
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl		
1985	361.2	62,015r	417.0	66,334	30.2r	5,319r		
1986	410.9	70,542	500.6	79,618	17.4r	3,061r		
1987	425.6	73,069	487.2	77,490	23.6r	4,158r		
1988	439.5	75,459	559.4	88,972	29.8r	5,263r		
1989	446.2	76,608	537.0	85,411	27.2r	4,797r		
1990	386.3	66,310	487.7	77,570	12.9r	2,283r		
1991	358.5	61,552	426.8	67,888	15.0r	2,646r		
1992	382.8	65,720	324.2	51,560	10.6	1,861		
1993	408.2	70,069	302.6r	48,130	13.7	2,422r		
1994	394.6	67,740	254.0	40,402	13.0	2,289		
1995r	404.2	69,384	191.1	30,392	13.4	2,363		
1996r	426.2	73,166	232.5	36,975	16.3	2,883		
1997r	424.1	72,805	190.8	30,341	16.5	2,906		
1998r	385.6	66,205	239.7	38,127	19.0	3,358		
1999r	425.7	73,075	250.0	39,759	17.5	3,086		
2000r	445.9	76,557	277.6	44,161	19.5	3,443		
2001p	465.0	79,829	206.0	32,769	19.5	3,445		

Year	LPG ^{1,2}		Motor Gasoline		Aviation Fuels ³		Total ²	
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
1985	17.7r	4,923	742.0	141,249	201.7	35,573	1,769.9r	315,413
1986	17.8r	4,878	744.3	141,699	210.3	37,090	1,901.2r	336,888
1987	20.0r	5,475	770.9	146,758	218.9	38,607	1,946.2r	345,557
1988	19.1r	5,238	772.4	147,048	227.8	40,175	2,048.1r	362,155
1989	20.5r	5,579	776.3	147,786	227.7	40,161	2,035.0r	360,342
1990	20.3r	5,606	740.2	140,901	227.2	40,066	1,874.5r	332,736r
1991	26.0r	7,207	712.6	135,661	207.1	36,519	1,746.1r	311,473
1992	25.6r	7,077	707.2	134,624	207.4	36,582	1,657.8r	297,424
1993	22.1r	6,139	711.0	135,349	207.8	36,653	1,665.4r	298,762
1994	23.1r	6,352r	690.3	131,987	210.1	37,050	1,585.0r	285,820
1995r	22.9	6,332	703.6	134,911	220.1	38,825	1,555.3	282,207
1996r	25.6	7,073	698.7	133,947	217.3	38,333	1,616.6	292,377
1997r	24.2	6,687	698.5	133,985	222.8	39,294	1,576.8	286,018
1998r	26.4	7,306	700.1	134,318	218.8	38,581	1,589.6	287,895
1999r	26.5	7,316	715.5	137,298	222.0	39,158	1,657.1	299,692
2000r	28.8	7,991	699.6	134,283	223.4	39,393	1,694.9	305,828
2001p	29.8	8,275	704.4	135,206	207.2	36,549	1,632.1	296,072

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

See Glossary on page 480 for explanation of abbreviations.

p Preliminary.

r Revised.

1 Propane.

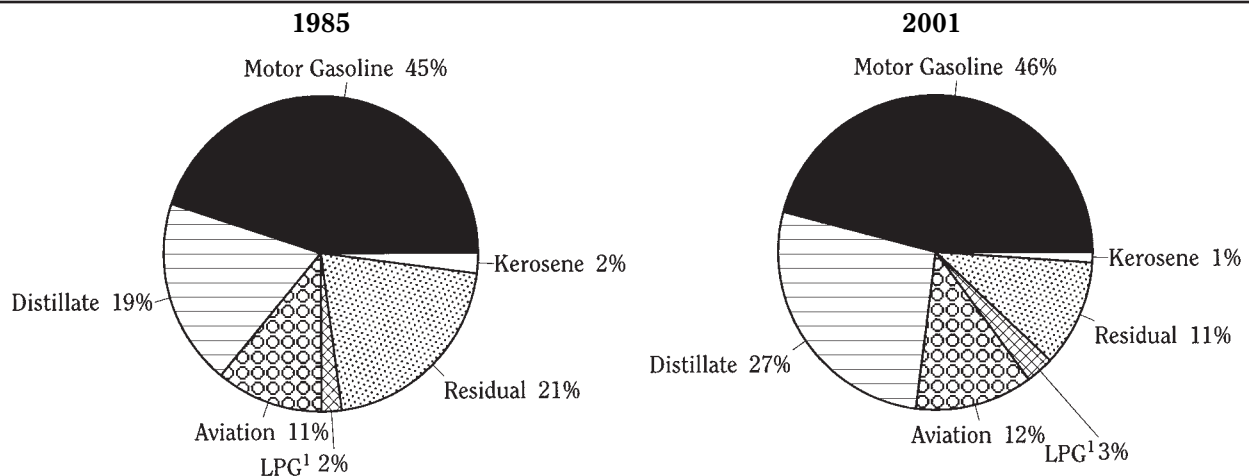
2 Excludes nonfuel uses.

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 — 1985 and 2001**



1 Propane.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-6
Primary Consumption of Energy by the Electric Generation Sector
by Type of Fuel
New York State — 1985-2001

Year	Coal ¹		Natural Gas		Petroleum Products				Total	
	TBtu	MTons	TBtu	MMcf	Distillate ²		Residual		TBtu	Mbbbl
					TBtu	Mbbbl	TBtu	Mbbbl		
1985	249.6	9,905	179.2	172,631	4.8	821	271.7	43,220	276.5	44,041
1986	214.5	8,430	138.1r	133,532	7.9	1,349	327.6	52,104	335.4	53,453
1987	256.7	10,039	178.9r	173,328	8.4	1,442	321.2	51,096	329.6	52,538
1988	291.7	11,380	152.3r	148,186	12.6	2,162	395.1	62,840	407.7	65,002
1989	318.9	12,432	187.5r	182,002	21.2	3,636	406.4	64,636	427.5	68,272
1990	318.6	12,400	243.9r	235,909	5.9	1,016	338.2	53,800	344.2	54,816
1991	323.8	12,532	247.3r	241,478	5.1	884	279.3	44,432	284.5	45,316
1992	342.2	13,184	319.4r	312,516	2.4	417	181.0	28,784	183.4	29,201
1993	307.4	11,907	343.4r	336,052	3.3	567	147.3	23,430	150.6	23,997
1994	299.4	11,552	407.4r	398,674	5.5	941	111.4	17,724	116.9	18,665
1995	288.1r	11,038	559.8r	546,116	6.7	1,146	77.0	12,251	83.7	13,397
1996	295.6	11,362	440.8r	430,445	6.3	1,079	93.8	14,919	100.1	15,998
1997	315.7	12,047	527.3r	517,446r	6.0	1,031	80.5	12,805	86.5	13,836
1998r	352.4	13,497	442.1	433,872	7.5	1,282	155.1	24,669	162.6	25,951
1999r	238.1	9,134	446.6	438,280	10.3	1,775	134.5	21,390	144.8	23,165
2000	251.1	9,635	381.6	374,087	11.6	1,983	148.6	23,642	160.2	25,625
2001p	269.8	10,352	428.5	420,058	10.5	1,803	135.1	21,491	145.6	23,293

Year	Hydro		Nuclear		Net Imported Electricity		Biofuels ³		Total ⁴
	TBtu	GWh	TBtu	GWh	TBtu	GWh	TBtu	GWh	TBtu
1985r	287.3	26,956	256.8	24,092	108.2	10,155	NA	NA	1,357.7
1986r	311.1	29,480	233.1	22,084	139.3	13,204	NA	NA	1,371.5
1987r	288.5	27,546	240.1	22,926	119.1	11,373	NA	NA	1,412.9
1988	247.5	23,994	249.4	24,176	103.1	9,994	NA	NA	1,451.6r
1989r	250.0	23,918	238.8	22,846	57.9	5,539	NA	NA	1,480.7
1990	287.2r	27,555	246.2	23,623r	14.1	1,352	15.7	1,502	1,469.9r
1991r	272.8	26,258	295.5	28,448	65.7	6,323	16.8	1,622	1,506.4
1992r	287.2	27,281	254.3	24,155	107.0	10,167	19.0	1,806	1,512.5
1993r	302.4	28,479	285.5	26,889	151.6	14,280	21.2	1,993	1,562.3
1994r	284.0	26,800	309.7	29,231	121.9	11,504	21.0	1,983	1,560.3
1995r	266.1	24,990	280.4	26,336	77.8	7,311	23.9	2,249	1,579.8
1996r	300.7	28,055	377.6	35,226	51.5	4,806	25.4	2,372	1,591.7
1997r	309.2	29,767	307.2	29,570	-24.5	-2,356	25.2	2,423	1,546.6
1998r	305.3	28,252	338.4	31,314	11.8	1,090	25.0	2,311	1,637.6
1999r	241.5	23,643	378.2	37,019	116.3	11,385	28.4	2,784	1,594.0
2000r	243.0	24,232	315.9	31,508	186.4	18,593	32.4	3,227	1,570.6
2001p	249.3	24,981	308.5	30,921	118.9	11,901	43.1	4,318	1,563.6

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

See glossary on page 480 for explanation of abbreviations.

NA Not available.

p Preliminary.

r Revised.

1 Bituminous only.

2 Includes small quantities of kerosene-type jet fuel.

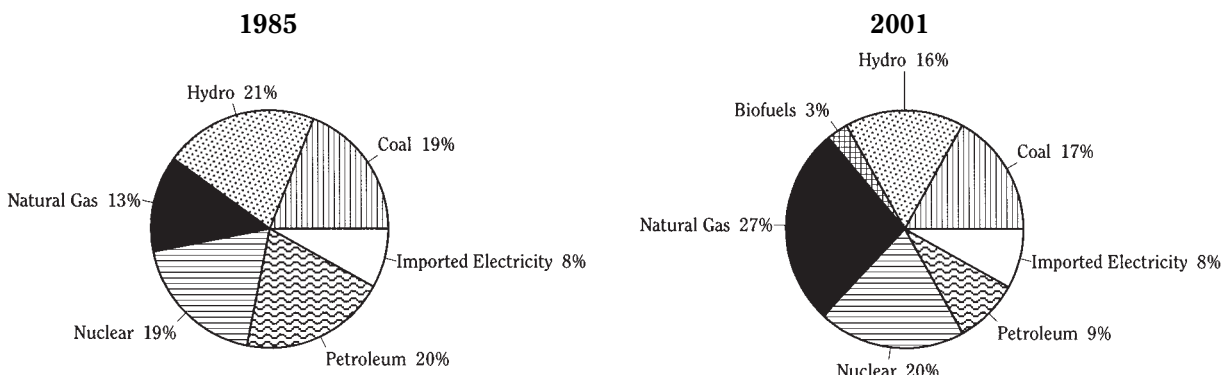
3 Includes renewable and indigenous fuels used by non-utility generators.

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

SOURCE: New York State Energy Research and Development Authority.

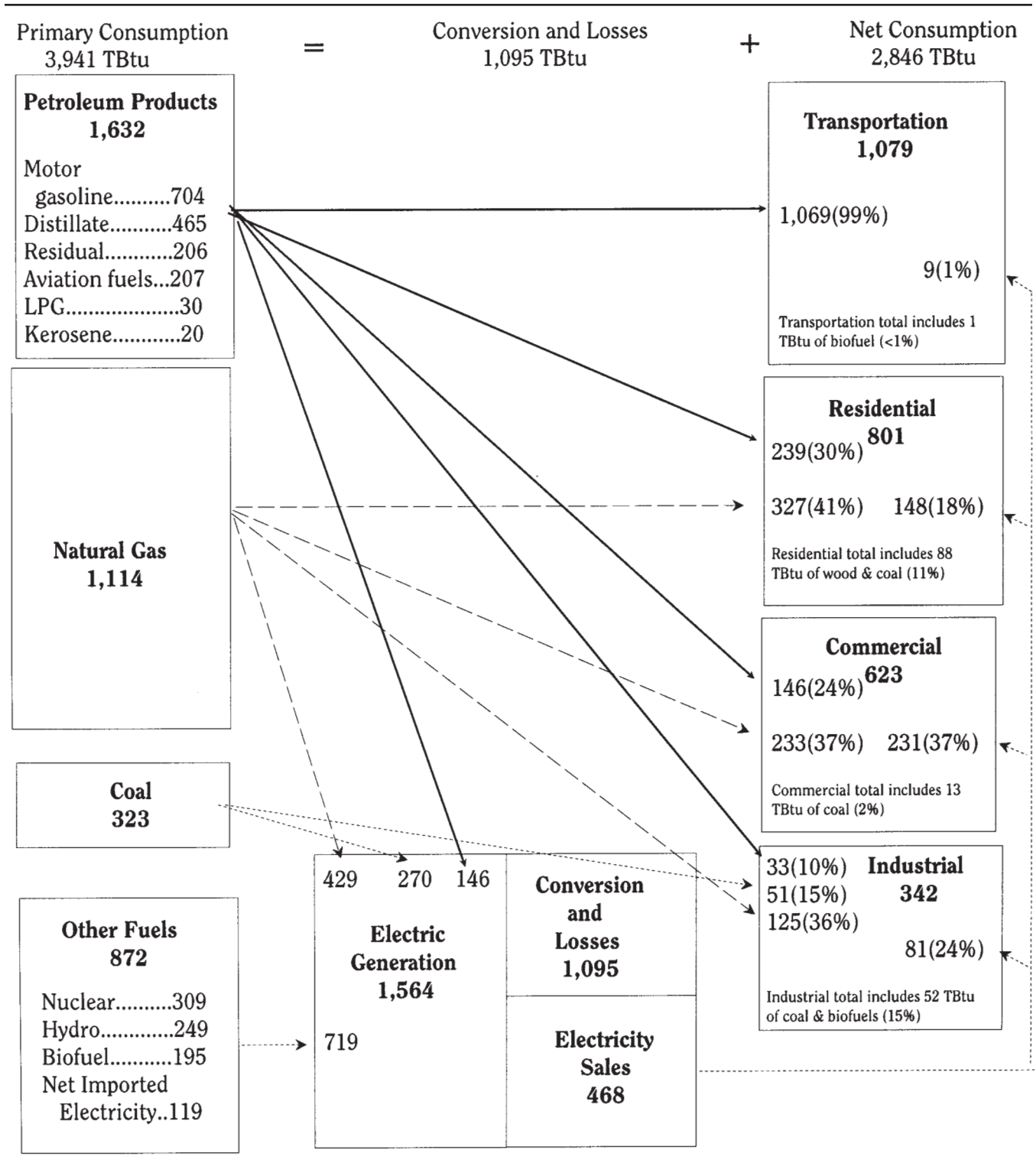
FIGURE L-3

Primary Consumption of Energy by the Electric Utility Sector by Type of Fuel
New York State — 1985 and 2001



SOURCE: New York State Energy Research and Development Authority.

FIGURE L-4
Energy Flow
New York State — 2001



SOURCE: New York State Energy Research and Development Authority

TABLE L-7

**Net Consumption of Energy by the Residential Sector
New York State — 1985-2001**

Year	Petroleum Products							
	Coal ¹		Natural Gas		Distillate		Kerosene	
	TBtu	MTons	TBtu	MMcf	TBtu	Mbbl	TBtu	Mbbl
1985	4.7r	207r	330.3	320,385	180.5	30,992	18.3	3,219
1986	4.8	206	342.2	332,584	198.4	34,065	12.5	2,209
1987	4.3	173	340.8	330,508	211.0	36,220	18.2	3,212
1988	3.4	139	363.1	352,829	212.2	36,422	23.6	4,163
1989	3.5	137	369.7r	358,561	202.6	34,788	15.7	2,771
1990	3.1r	129r	341.1	331,157	154.5	26,529	10.0	1,765
1991	3.1	130r	337.1	326,974	145.7	25,021	11.9	2,098
1992	3.1r	128r	384.4	372,862	163.1	27,997	7.1	1,252
1993	2.9r	120r	385.6r	375,093	167.2	28,707	8.9	1,565
1994	2.1	88r	387.4r	376,444r	155.9	26,760	7.9	1,396
1995r	2.5	106	375.7	365,847	161.4	27,713	7.0	1,240
1996r	3.2	135	402.2	391,617	178.7	30,674	8.2	1,450
1997r	2.7	114	384.9	374,755	176.5	30,303	9.9	1,744
1998r	1.5	66	325.4	315,008	158.2	27,159	10.6	1,866
1999r	1.7	74	346.1	336,634	166.0	28,502	13.2	2,327
2000r	1.0	44	361.2	352,019	194.2	33,336	13.3	2,344
2001p	1.0	44	326.9	318,625	204.9	35,169	13.6	2,390

Year	Petroleum Products (continued)								Total TBtu
	LPG ²		Total		Biofuels ³		Electricity		
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mcords	TBtu	GWh	
1985r	11.6	3,227	210.4	37,438	64.8	3,240	111.8	32,757	722.0
1986r	11.9	3,282	222.9	39,556	63.1	3,154	115.2	33,771	748.3
1987r	14.0	3,834	243.2	43,266	59.0	2,952	120.4	35,294	767.7
1988r	13.6	3,718	249.3	44,303	61.3	3,066	127.8	37,460	805.0
1989r	14.5	3,931	232.8	41,490	63.6	3,181	129.2	37,878	798.8
1990	14.8r	4,079	179.3r	32,373	46.5	2,325	131.6	38,574	701.7r
1991	18.3r	5,051	175.9r	32,170	49.0	2,450	133.7	39,177	698.8r
1992	18.0r	4,965	188.2r	34,214	51.5	2,577	132.1	38,720	759.3r
1993	15.5r	4,293	191.6r	34,565	55.2	2,758	136.1	39,897	771.3r
1994	15.8	4,350	179.6	32,506	54.1	2,704	136.8	40,105	760.0
1995r	16.4	4,516	184.8	33,469	60.0	3,001	136.1	39,887	759.2
1996r	17.8	4,937	204.7	37,061	59.9	2,996	137.5	40,285	807.5
1997r	15.8	4,379	202.2	36,426	84.0	4,202	136.7	40,059	810.5
1998r	15.6	4,323	184.4	33,348	74.1	3,705	137.3	40,240	722.8
1999r	17.0	4,691	196.2	35,520	79.4	3,970	146.4	42,919	769.8
2000r	19.5	5,395	226.9	41,075	83.1	4,153	143.2	41,970	815.4
2001p	20.5	5,691	238.9	43,250	86.9	4,344	147.6	43,252	801.3

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

See Glossary on page 480 for explanation of abbreviations.

p Preliminary.

r Revised.

1 Anthracite and Bituminous.

2 Propane.

3 Wood.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-8

**Net Consumption of Energy by the Commercial Sector
New York State — 1985-2001**

Year	Petroleum Products							
	Coal ¹		Natural Gas		Distillate		Residual	
	TBtu	MTons	TBtu	MMcf	TBtu	Mbbl	TBtu	Mbbl
1985	5.1	226	161.3	156,457	68.9r	11,835	104.8	16,677
1986	6.0	258	161.9	157,370	95.9r	16,471	125.5	19,955
1987	4.8	198	164.6	159,626	86.1	14,782	119.4	18,987
1988	4.1	170	191.3	185,939	85.7	14,720	114.1	18,154
1989	3.9	162r	185.3	179,759	90.1	15,473	99.8	15,878
1990	3.4	144r	178.8	173,560	75.6r	12,974	110.9	17,643
1991	3.5	148r	180.8	175,372	74.3	12,758	107.5	17,102
1992	3.4	147r	204.3	198,189	81.0	13,899	100.3	15,951
1993r	2.6	112	215.1	209,193	88.1	15,123	110.2	17,531
1994r	2.3	97	236.6	229,893	85.0	14,592	102.5	16,301
1995r	2.7	115	239.0	232,709	88.6	15,210	86.5	13,766
1996r	3.5	148	236.3	230,089	91.8	15,754	81.8	13,008
1997r	3.2	139	238.2	231,969	86.2	14,794	64.9	10,315
1998r	1.8	81	207.2	200,610	70.8	12,148	45.2	7,194
1999r	2.4	106	220.0	213,962	81.7	14,023	56.2	8,932
2000r	1.3	57	253.9	247,425	83.1	14,271	62.2	9,891
2001p	1.3	57	233.1	227,150	94.5	16,230	42.7	6,792

Year	Petroleum Products (continued)										
	Kerosene		LPG ²		Total		Biofuels ³		Electricity		Total
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mcords	TBtu	GWh	TBtu
1985r	4.9	862	2.1	569	180.7	29,943	1.7	86	166.6	48,816	515.4
1986r	1.3	228	2.1	579	224.8	37,233	2.0	98	172.1	50,430	566.7
1987r	1.8	318	2.5	677	209.8	34,764	2.2	110	178.3	52,256	559.6
1988r	1.2	207	2.4	656	203.4	33,737	2.4	122	188.7	55,305	590.0
1989r	2.9	519	2.6	694	195.5	32,564	2.7	134	191.2	56,051	578.6
1990r	1.5	269	2.6	720	190.6	31,606	3.0	148	191.2	56,025	566.9
1991r	1.2	213	3.2	891	186.3	30,964	3.1	156	192.5	56,408	566.1
1992r	2.3	408	3.2	876	186.7	31,134	3.4	168	191.3	56,079	589.2
1993r	3.5	616	2.7	758	204.5	34,028	4.4	222	195.9	57,410	622.5
1994r	3.1	538	2.8	768	193.3	32,199	4.5	227	200.6	58,802	637.3
1995r	4.0	714	2.9	797	182.1	30,487	4.5	227	213.3	62,509	641.6
1996r	4.3	751	3.1	871	181.0	30,384	4.9	246	213.8	62,663	639.4
1997r	4.5	801	2.8	773	158.4	26,683	9.2	461	218.5	64,029	627.4
1998r	5.6	981	2.8	763	124.3	21,086	9.2	461	215.8	63,253	558.4
1999r	3.9	682	3.0	828	144.7	24,465	11.1	557	231.9	67,969	610.1
2000r	5.4	948	3.1	853	153.8	25,963	11.4	568	228.9	67,075	649.1
2001p	5.0	874	3.5	970	145.7	24,866	11.6	580	231.3	67,785	622.9

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

See Glossary on page 480 for explanation of abbreviations.

p Preliminary.

r Revised.

1 Anthracite and Bituminous.

2 Propane.

3 Wood.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-9

Net Consumption of Energy by the Industrial Sector New York State — 1985-2001

Year	Petroleum Products							
	Coal ¹		Natural Gas ²		Distillate		Residual	
	TBtu	Mtons	TBtu	MMcf	TBtu	Mbbl	TBtu	Mbbl
1985	85.1	3,609	107.5	104,304	28.1r	4,816	34.9	5,553
1986	80.2	3,308	95.1	92,423	18.3r	3,148	37.9	6,033
1987	82.7	3,385	96.7	93,749	22.5	3,866	32.9	5,232
1988	83.3	3,387	90.0	87,501	21.6r	3,705	30.9	4,919
1989	75.3	3,127	104.2r	101,114	22.4	3,846	27.4	4,366
1990	69.7	2,899	114.3	110,964	20.0r	3,428	29.9	4,750
1991	68.2	2,847	120.5	116,915	17.7	3,043	15.0	2,383
1992	67.7	2,813	136.2	132,126	18.2	3,117	19.5	3,095
1993	64.6	2,686	126.3r	122,860r	23.6	4,047	24.6	3,911
1994	63.8	2,641	138.9r	135,016r	17.9r	3,066	20.2	3,208
1995r	59.9	2,406	140.4	136,670	17.3	2,973	12.7	2,021
1996r	57.2	2,322	138.8	135,132	18.0	3,097	15.7	2,498
1997r	63.1	2,519	139.9	136,236	17.6	3,015	12.6	2,006
1998r	60.6	2,464	121.7	117,818	17.9	3,075	12.5	1,986
1999r	54.7	2,244	129.2	125,661	20.2	3,460	12.3	1,949
2000r	50.2	2,084	136.7	133,229	18.1	3,099	13.2	2,104
2001p	51.3	2,124	125.5	122,311	16.7	2,868	9.2	1,458

Year	Petroleum Products (continued)									
	Kerosene		LPG ³		Total		Biofuels	Electricity		Total ⁴
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	TBtu	GWh	TBtu
1985r	7.0	1,238	3.5	980	73.5	12,587	56.7	97.8	28,659	420.7
1986r	3.5	624	3.3	909	63.1	10,714	53.2	95.9	28,107	387.4
1987r	3.6	628	3.2	877	62.2	10,603	49.6	98.0	28,726	389.2
1988r	5.1	893	2.7	742	60.3	10,259	46.1	102.9	30,155	382.6
1989r	8.5	1,507	2.9	800	61.3	10,519	42.5	107.3	31,448	390.7
1990r	1.4	249	2.4	657	53.6	9,084	39.0	108.9	31,929	385.6
1991r	1.9	335	4.0	1,107	38.6	6,868	36.2	106.2	31,112	369.7
1992r	1.1	201	4.0	1,092	42.7	7,505	43.8	105.9	31,027	396.3
1993	1.4	241	3.5r	961	53.0r	9,160	38.0r	103.0	30,187	384.9r
1994r	2.0	355	3.4	948	43.5	7,577	45.4	100.5	29,467	392.2
1995r	2.3	409	3.2	881	35.5	6,284	44.4	86.4	25,317	366.6
1996r	3.9	682	4.1	1,142	41.7	7,419	57.5	88.5	25,947	383.8
1997r	2.0	361	5.2	1,445	37.4	6,827	60.3	86.3	25,282	387.0
1998r	2.9	511	6.1	1,687	39.4	7,259	32.3	85.6	25,089	339.6
1999r	0.4	77	6.4	1,772	39.3	7,258	54.7	88.1	25,835	366.0
2000r	0.9	151	6.2	1,719	38.3	7,073	50.2	82.3	24,109	357.7
2001p	1.0	181	5.7	1,590	32.6	6,097	51.9	80.9	23,718	342.2

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

See Glossary on page 480 for explanation of abbreviations.

p Preliminary.

r Revised.

1 Anthracite and Bituminous. Includes deliveries to cokeries.

2 Excludes lease and plant fuels.

3 Propane.

4 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 — 1985-2001**

Year	Distillate		Residual		Motor Gasoline		Aviation Fuels ¹		Total ⁴
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	
1985	78.9	13,551	5.6	884	742.0	141,249	201.7	35,573	
1986	90.3	15,509	9.6	1,526	744.3	141,699	210.3	37,090	
1987	97.6	16,759	13.7	2,175	770.9	146,758	218.9	38,607	
1988	107.5	18,450	19.2	3,059	772.4	147,048	227.8	40,175	
1989	109.9	18,865	3.3	531	776.3	147,786	227.7	40,161	
1990	130.3	22,363	8.7	1,377	740.2	140,901	227.2	40,066	
1991	115.6	19,846	25.0	3,971	712.6	135,661	207.1	36,519	
1992	118.2	20,290	23.5	3,730	707.2	134,624	207.4	36,582	
1993	126.0	21,625	20.5	3,258	711.0	135,349	207.8	36,653	
1994	130.4	22,381	19.9	3,169	690.3	131,987	210.1	37,050	
1995r	130.1	22,342	14.8	2,354	703.6	134,911	220.1	38,825	
1996r	131.4	22,562	41.2	6,550	698.7	133,947	217.3	38,333	
1997r	137.8	23,662	32.8	5,215	698.5	133,985	222.8	39,294	
1998r	131.3	22,541	26.9	4,278	700.1	134,318	218.8	38,581	
1999r	147.5	25,315	47.1	7,488	715.5	137,298	222.0	39,158	
2000r	139.0	23,868	53.6	8,524	399.6	134,283	223.4	39,393	
2001p	138.4	23,759	19.0	3,028	704.4	135,206	207.2	36,549	
Year	LPG ²		Total Petroleum		Biofuels ³		Electricity		Total ⁴
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	GWh	
1985r	0.5	147	1,028.7	191,404	NA	NA	8.3	2,442	1,037.0
1986r	0.4	108	1,055.0	195,932	NA	NA	8.9	2,601	1,063.8
1987r	0.3	87	1,101.4	204,386	NA	NA	9.2	2,693	1,110.6
1988r	0.4	122	1,127.4	208,854	NA	NA	9.3	2,722	1,136.7
1989r	0.6	154	1,117.8	207,497	NA	NA	9.6	2,825	1,127.5
1990r	0.5	150	1,106.8	204,857	NA	NA	9.5	2,795	1,116.3
1991r	0.6	158	1,060.8	196,155	NA	NA	9.3	2,714	1,070.1
1992r	0.5	144	1,056.8	195,370	NA	NA	9.0	2,644	1,065.8
1993r	0.5	127	1,065.7	197,012	0.3	83	9.1	2,676	1,075.1
1994r	1.0	286	1,051.7	194,873	0.7	205	9.6	2,803	1,062.0
1995r	0.5	138	1,069.1	198,570	2.3	654	9.4	2,757	1,080.9
1996r	0.4	123	1,089.1	201,515	2.0	552	9.0	2,632	1,100.0
1997r	0.3	90	1,092.2	202,246	1.9	532	8.8	2,567	1,102.8
1998r	1.9	533	1,078.9	200,251	1.4	394	8.8	2,580	1,089.1
1999r	0.1	25	1,132.1	209,284	1.2	341	9.1	2,654	1,142.4
2000r	0.1	24	1,115.7	206,092	1.4	388	8.9	2,600	1,125.9
2001p	0.1	24	1,069.2	198,566	1.6	442	8.5	2,500	1,079.3

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

See Glossary on page 480 for explanation of abbreviations.

NA Not available.

p Preliminary.

r Revised.

1 Kerosene-type jet fuel and aviation gasoline.

2 Propane.

3 Ethanol blended into motor gasoline.

4 Excludes pipeline fuels.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-11
Net Energy Bill by Sector and Type of Fuel
New York State — 1985, 1990, 1995 and 2001
(millions of current dollars)

Fuel	All Sectors	Residential	Commercial	Industrial	Transportation
--- 1985r ---					
All Fuels	\$ 26,338.5	\$ 7,866.5	\$ 7,134.9	\$ 2,640.6	\$ 8,696.5
Coal	189.5	17.0	10.0	162.5	X
Petroleum	11,783.0	1,799.4	1,023.9	426.3	8,533.4
Distillate	2,816.6	1,507.2	467.8	172.5	669.1
Residual	671.1	X	486.3	161.9	22.8
Gasoline	6,522.2	X	X	X	6,522.2
Kerosene	255.3	163.2	43.7	48.4	X
Aviation	1,313.1	X	X	X	1,313.1
LPG ¹	204.8	129.0	26.1	43.5	6.2
Natural Gas	4,001.7	2,490.5	959.7	551.5	X
Electricity	10,364.3	3,559.7	5,141.3	1,500.3	163.1
--- 1990r ---					
All Fuels	\$ 28,126.7	\$ 8,451.7	\$ 7,554.3	\$ 2,789.2	\$ 9,331.6
Coal	138.4	11.1	6.0	121.3	X
Petroleum	11,915.1	1,574.2	948.5	282.5	9,110.0
Distillate	3,105.4	1,304.0	494.4	135.6	1,171.4
Residual	555.2	X	415.9	112.1	27.2
Gasoline	6,536.0	X	X	X	6,536.0
Kerosene	87.6	68.3	10.2	9.0	X
Aviation	1,370.0	X	X	X	1,370.0
LPG ¹	260.9	201.9	27.9	25.8	5.4
Natural Gas	3,962.9	2,452.5	970.9	539.5	X
Electricity	12,110.3	4,413.9	5,628.9	1,845.9	221.6
--- 1995r ---					
All Fuels	\$ 30,883.2	\$ 10,055.9	\$ 9,365.9	\$ 2,371.7	\$ 9,089.8
Coal	114.2	8.3	4.5	101.4	X
Petroleum	11,214.6	1,427.3	783.6	163.8	8,839.8
Distillate	2,861.2	1,155.6	448.3	83.7	1,173.5
Residual	370.7	X	288.9	42.4	39.4
Gasoline	6,733.5	X	X	X	6,733.5
Kerosene	69.4	37.7	21.5	10.3	X
Aviation	889.2	X	X	X	889.2
LPG ¹	290.6	234.0	24.9	27.4	4.3
Natural Gas	5,134.5	3,077.0	1,417.3	640.2	X
Electricity	14,420.0	5,543.4	7,160.5	1,466.2	249.9
--- 2001p ---					
All Fuels	\$ 37,940.0	\$ 12,453.6	\$ 11,602.3	\$ 2,332.6	\$ 11,551.4
Coal	88.3	3.4	1.8	83.1	X
Petroleum	15,104.0	2,565.8	911.5	219.6	11,406.9
Distillate	4,330.7	2,083.8	657.7	115.2	1,474.0
Residual	273.4	X	169.9	36.6	66.9
Gasoline	8,621.9	X	X	X	8,621.9
Kerosene	183.4	128.2	47.2	8.0	X
Aviation	1,243.2	X	X	X	1,243.2
LPG ¹	451.4	353.8	36.7	59.8	1.0
Natural Gas	6,458.9	3,785.5	1,876.5	796.9	X
Electricity	16,288.7	6,098.8	8,812.5	1,232.9	144.5

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

X Not applicable.

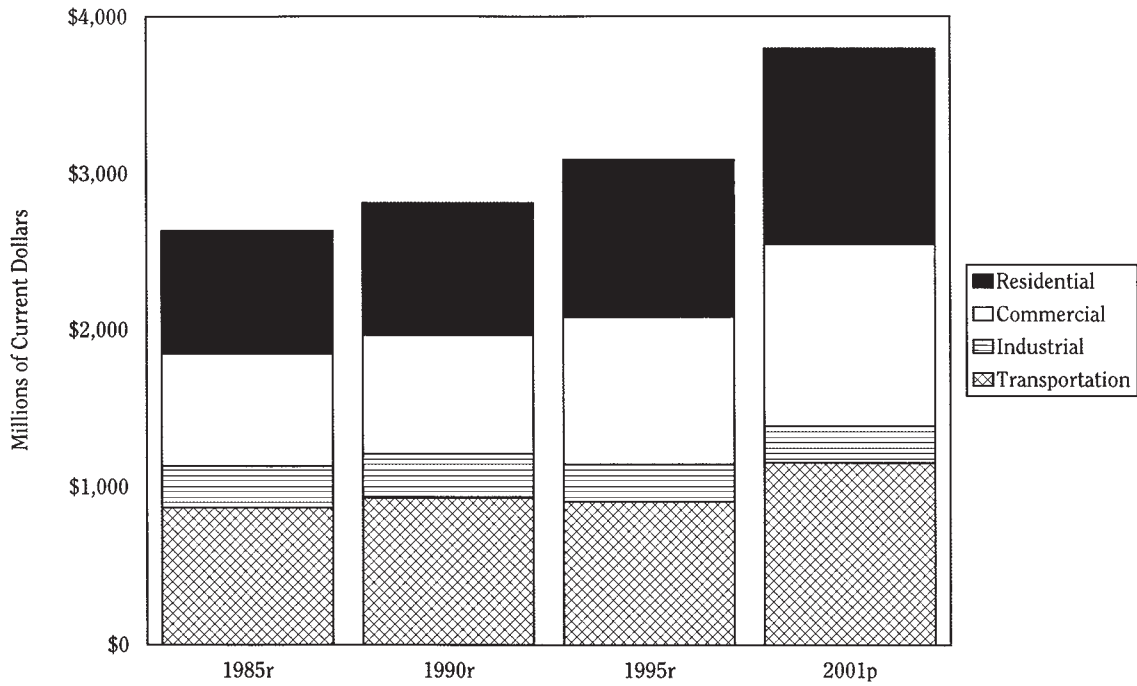
r Revised.

p Preliminary.

1 Propane.

SOURCE: New York State Energy Research and Development Authority.

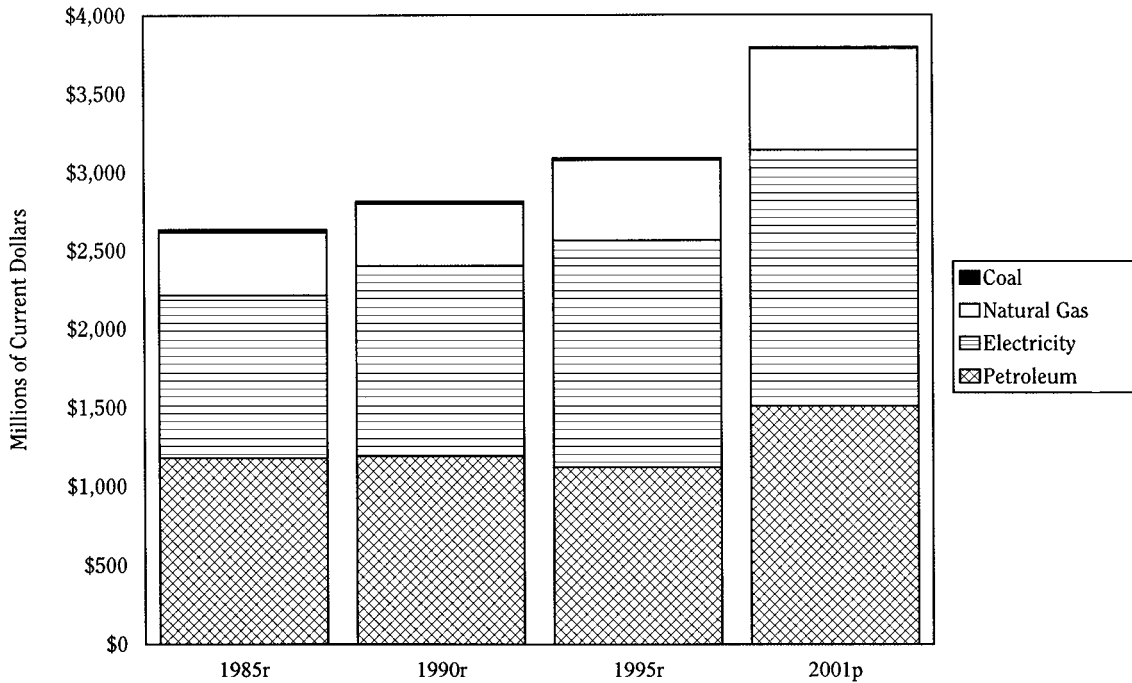
FIGURE L-5
Net Energy Costs by Sector
New York State
Selected Years — 1985-2001



r Revised.
p Preliminary.

SOURCE: New York State Energy Research and Development Authority.

FIGURE L-6
Net Energy Costs by Fuel Type
New York State
Selected Years — 1985-2001



r Revised.
p Preliminary.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-12

Residential Retail Energy Prices New York State — 1985-2001

Date	Steam Coal ¹		Distillate ²		Kerosene		LPG ³		Natural Gas		Electricity	
	\$/ton	\$/MMBtu	cents/gallon	\$/MMBtu	cents/gallon	\$/MMBtu	cents/gallon	\$/MMBtu	\$/Mcf	\$/MMBtu	\$/MKWh	\$/MMBtu
1985	81.83	3.61	115.81	8.35	120.42	8.92	95.39r	11.12	7.77	7.54	108.64	31.84
1986	77.84	3.39	94.73	6.83	106.65	7.90	86.30r	9.96	7.47	7.26	105.31	30.86
1987	76.63	3.27	88.62	6.39	91.80	6.80	84.00r	9.64	6.89	6.68	105.11	30.81
1988	77.51	3.29	89.73	6.47	85.19	6.31	82.88r	9.53	6.50	6.32	104.64	30.67
1989	79.47	3.36	99.58	7.18	73.04	5.41	101.19r	11.54	7.23	7.01	109.30	32.03
1990	82.95	3.59	117.05	8.44	92.21	6.83	117.68r	13.64	7.41	7.19	114.43	33.54
1991	79.58	3.44	115.81	8.35	84.11	6.23	125.55r	14.59	7.38	7.16	119.71	35.09
1992	74.23	3.21	106.93	7.71	78.30	5.80	124.54r	14.43	7.60	7.37	124.30	36.43
1993	74.76	3.25	104.16	7.51	75.06	5.56	114.59r	13.35r	8.15	7.92r	131.74	38.61
1994r	76.04	3.29	100.41	7.24	75.87	5.62	126.01	14.56	8.77	8.52	135.52	39.72
1995r	73.52	3.18	99.30	7.16	72.63	5.38	123.10	14.27	8.41	8.19	138.97	40.73
1996r	77.78	3.38	110.54	7.97	81.41	6.03	128.43	14.93	8.91	8.68	140.37	41.14
1997r	80.30	3.57	110.81	7.99	84.51	6.26	129.32	15.02	9.74	9.48	141.19	41.38
1998r	73.52	3.25	98.61	7.11	59.94	4.44	119.18	13.85	9.64	9.33	136.58	40.03
1999r	76.65	3.21	100.83	7.27	73.58	5.45	121.05	14.06	9.13	8.88	132.32	38.78
2000r	77.65	3.25	152.56	11.00	135.39	10.03	140.09	16.31	9.86	9.61	141.00	41.32
2001p	81.15	3.40	141.05	10.17	127.27	9.43	148.55	17.26	11.88	11.58	141.00	41.32

NOTE: See glossary on page 480 for explanation of abbreviations.

r Revised.

1 Anthracite only.

2 Home heating oil.

3 Propane.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-13

Commercial Retail Energy Prices¹ New York State — 1985-2001

Date	Steam Coal		Distillate		Residual		Kerosene		Natural Gas		Electricity	
	\$/ton	\$/MMBtu	cents/gallon	\$/MMBtu	\$/bbl	\$/MMBtu	cents/gallon	\$/MMBtu	\$/Mcf	\$/MMBtu	\$/MKwh	\$/MMBtu
1985	43.48	1.92	94.17	6.79	29.18	4.64	120.42	8.92	6.13	5.95	105.28	30.86
1986	40.00	1.74	67.68	4.88	18.39	2.92	106.65	7.90	5.78	5.61	101.05	29.62
1987r	41.11	1.76	67.96	4.90	20.22	3.22	91.80	6.80	5.18	5.02	95.41	27.96
1988	40.31	1.71	65.88	4.75	16.82	2.67	85.19	6.31	5.39	5.24	92.57	27.13
1989	41.45	1.75	73.23	5.28	19.61	3.12	73.04	5.41	5.63	5.46	95.51	27.99
1990r	40.64	1.76	90.70	6.54	23.59	3.75	92.21	6.83	5.60	5.43	100.45	29.44
1991r	40.22	1.74	83.35	6.01	17.78	2.83	84.11	6.23	5.49	5.33	103.41	30.31
1992r	40.43	1.75	75.86	5.47	18.17	2.89	78.30	5.80	5.76	5.59	107.40	31.48
1993r	38.39	1.67	73.37	5.29	18.11	2.88	75.06	5.56	6.16	5.99	112.14	32.87
1994r	38.60	1.67	71.43	5.15	19.36	3.08	75.87	5.62	6.52	6.34	112.53	32.98
1995r	38.61	1.67	70.18	5.06	21.00	3.34	72.63	5.38	6.09	5.93	114.54	33.57
1996r	36.82	1.60	83.35	6.01	25.40	4.04	81.41	6.03	6.89	6.71	115.97	33.99
1997r	37.12	1.65	76.28	5.50	21.63	3.44	84.51	6.26	6.51	6.34	116.76	34.22
1998r	33.03	1.46	60.89	4.39	14.96	2.38	59.94	4.44	6.12	5.92	111.88	32.79
1999r	33.91	1.42	65.32	4.71	17.48	2.78	73.58	5.45	5.15	5.01	110.00	32.24
2000r	34.35	1.44	108.44	7.82	28.15	4.48	135.39	10.03	7.77	7.57	125.00	36.64
2001p	35.90	1.50	96.52	6.96	25.05	3.98	127.27	9.43	8.26	8.05	130.00	38.10

NOTE: See glossary on page 480 for explanation of abbreviations.

Commercial steam coal prices are assumed to equal industrial steam coal prices.

p Preliminary.

r Revised.

1 Commercial includes other public authorities.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-14

Industrial Retail Energy Prices New York State — 1985-1999

Date	Metallurgical and Steam Coal ¹		Distillate		Residual		Kerosene	
	\$/ton	\$/MMBtu	cents/gallon	\$/MMBtu	\$/bbl	\$/MMBtu	cents/gallon	\$/MMBtu
1985r	46.62	1.91	85.16	6.14	29.18	4.64	93.29	6.91
1986r	42.89	1.75	57.10	4.12	18.39	2.92	65.88	4.88
1987r	41.27	1.68	64.35	4.64	20.22	3.22	62.78	4.65
1988r	40.71	1.66	59.22	4.27	16.82	2.67	59.94	4.44
1989r	42.12	1.71	65.74	4.74	19.61	3.12	71.28	5.28
1990r	42.79	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	42.68	1.74	76.42	5.51	18.17	2.89	65.88	4.88
1993r	41.50	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	41.63	1.70	74.75	5.39	21.63	3.44	70.74	5.24
1998r	39.21	1.55	57.97	4.18	14.96	2.38	54.14	4.01
1999r	38.18	1.53	64.77	4.67	17.48	2.78	62.51	4.63
2000r	38.68	1.55	107.52	7.75	28.15	4.48	115.02	8.52
2001p	40.42	1.62	95.69	6.90	25.05	3.98	108.12	8.01

Year	LPG ²		Natural Gas		Electricity	
	cents/gallon	\$/MMBtu	\$/Mcf	\$/MMBtu	\$/MKwh	\$/MMBtu
1985	106.63r	12.43r	5.29	5.13	52.35	15.34
1986	104.69r	12.08r	4.91	4.78	49.24	14.43
1987	102.36r	11.75r	4.28	4.16	50.29	14.74
1988	101.39r	11.66r	4.69	4.56	49.38	14.47
1989	88.74r	10.12r	4.84	4.69	52.94	15.52
1990r	92.70	10.74	4.86	4.72	57.83	16.95
1991	99.21r	11.53r	4.74	4.60	61.65	18.07
1992r	85.25	9.88	4.94	4.79	65.03	19.06
1993	83.28r	9.70r	5.17	5.03	66.65	19.53
1994r	74.78	8.64	5.23	5.08	67.76	19.86
1995r	73.93	8.57	4.68	4.56	57.90	16.97
1996r	78.20	9.09	5.04	4.91	56.23	16.48
1997r	86.44	10.04	5.05	4.92	51.96	15.23
1998r	80.37	9.34	4.04	3.91	49.47	14.50
1999r	82.05	9.53	3.90	3.79	47.39	13.89
2000r	107.42	12.51	6.13	5.97	49.00	14.36
2001p	90.23	10.49	6.52	6.35	52.00	15.24

NOTE: See glossary on page 480 for explanation of abbreviations.

p Preliminary.

r Revised.

1 Weighted average price.

2 Propane.

SOURCE: New York State Energy Research Development Authority.

TABLE L-15
Transportation Retail Energy Prices
New York State — 1985-2001

Date	Gasoline		Distillate ¹		Jet Fuel ²		Residual ³		Electricity ⁴	
	cents/ gallon	\$/ MMBtu	cents/ gallon	\$/ MMBtu	cents/ gallon	\$/ MMBtu	\$/ bbl	\$/ MMBtu	\$/ MKwh	\$/ MMBtu
1985r	109.94	8.79	117.61	8.48	87.90	6.51	25.68	4.08	67.04	19.65
1986r	82.55	6.60	91.40	6.59	59.70	4.42	14.25	2.27	66.58	19.51
1987r	87.42	6.99	93.48	6.74	61.40	4.55	17.87	2.84	77.09	22.59
1988r	89.55	7.16	94.03	6.78	56.00	4.15	13.74	2.18	72.97	21.39
1989r	97.81	7.82	102.08	7.36	63.40	4.70	16.50	2.63	77.30	22.65
1990r	110.44	8.83	124.68	8.99	81.40	6.03	19.70	3.13	79.60	23.33
1991r	118.07	9.44	125.65	9.06	69.90	5.18	14.94	2.38	78.89	23.12
1992r	116.07	9.28	123.30	8.89	65.30	4.84	14.64	2.33	87.14	25.54
1993r	113.06	9.04	125.38	9.04	60.30	4.47	14.41	2.29	91.37	26.78
1994r	114.06	9.16	128.29	9.25	55.89	4.14	15.09	2.40	93.08	27.28
1995r	118.83	9.57	125.10	9.02	54.54	4.04	16.72	2.66	90.73	26.59
1996r	123.32	9.93	134.11	9.67	65.88	4.88	19.80	3.15	91.27	26.75
1997r	124.62	10.04	128.84	9.29	61.16	4.53	17.67	2.81	91.71	26.88
1998r	106.23	8.56	113.73	8.20	45.90	3.40	12.20	1.94	88.51	25.94
1999r	118.74	9.57	122.05	8.80	57.11	4.23	15.47	2.46	87.42	25.02
2000	158.80	12.80	160.87	11.60	94.22	6.98	24.90	3.96	87.00	25.50
2001p	151.85	12.24	147.64	10.65	81.03	6.00	22.16	3.52	58.00	17.00

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

See glossary on page 480 for explanation of abbreviations.

p Preliminary.

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 — 2002

	Megawatt Hours (thousands)
Sources of Energy	
All Purchases and Generation	48,484
Generation (excluding station use)	23,822
Steam	4,620
Hydro	19,202
Purchases from utilities and the NY ISO	24,662
Losses and Unaccounted for	-512
Disposition of Energy	
All Sales	47,972
Direct Sales to Commercial and Industrial Customers ¹	4,926
Sales to Municipal Electric Systems, Rural Electric Cooperatives and Other Public Customers ²	16,343
Sales to utilities and the NY ISO for resale ³	26,703

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 New York Independent System Operator and the Long Island

Power authority. 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 — 1972-2001
(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

— 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 — 1972-2001
(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

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 — 1972-2001
(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

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 1960-2001**

Year	Average Usage per Customer (Kwh)	Electricity			
		Average Annual Bill per Customer		Revenue per Kwh	
		Current Dollars	Constant Dollars ¹	Current Dollars	Constant Dollars ¹
1960	2,598	\$ 83.84	\$ 310.49	\$ 0.0322	\$ 0.1193
1965	3,293	99.94	347.51	0.0303	0.1054
1970	4,662	134.43	379.55	0.0288	0.0813
1975	5,120	266.15	728.88	0.0520	0.1424
1976	5,269	286.43	742.36	0.0544	0.1410
1977	5,315	316.67	771.15	0.0596	0.1451
1978	5,329	328.02	745.58	0.0616	0.1400
1979	5,336	361.51	758.58	0.0678	0.1423
1980	5,359	414.27	795.97	0.0773	0.1485
1981	5,312	506.70	891.18	0.0954	0.1678
1982	5,260	529.67	876.31	0.1007	0.1666
1983	5,416	576.89	918.19	0.1065	0.1695
1984	5,491	606.72	931.00	0.1105	0.1696
1985	5,417	604.00	898.43	0.1115	0.1659
1986	5,523	598.53	871.06	0.1084	0.1578
1987	5,709	616.16	870.68	0.1079	0.1525
1988	5,989	642.87	878.52	0.1074	0.1468
1989	5,985	671.72	884.26	0.1122	0.1477
1990	6,046	711.39	901.25	0.1177	0.1491
1991	6,100	751.05	918.23	0.1231	0.1505
1992	5,969	764.41	912.34	0.1281	0.1529
1993	6,119	830.45	967.90	0.1357	0.1582
1994	6,107	853.83	974.89	0.1398	0.1596
1995	6,046	865.94	967.59	0.1432	0.1600
1996	6,069	879.05	963.61	0.1448	0.1587
1997	6,019	876.83	942.82	0.1457	0.1567
1998	5,683	794.38	843.59	0.1398	0.1485
1999a	5,934	816.81	854.60	0.1377	0.1441
2000a	5,843	855.18	873.77	0.1464	0.1496
2001a	5,911	861.06	861.06	0.1457	0.1457

Year	Average Usage per Customer (Mcf)	Gas			
		Average Annual Bill per Customer		Revenue per Mcf	
		Current Dollars	Constant Dollars ¹	Current Dollars	Constant Dollars ¹
1960	65.1	\$ 90.90	\$ 336.63	\$ 1.40	\$ 5.18
1965	80.0	105.86	368.10	1.32	4.59
1970	92.0	125.54	354.45	1.36	3.84
1975	89.8	221.02	605.28	2.46	6.74
1976	98.9	275.78	714.76	2.79	7.23
1977	94.9	311.91	759.55	3.29	8.01
1978	97.2	342.82	779.22	3.52	8.00
1979	93.4	370.38	777.20	3.96	8.31
1980	104.2	516.49	992.37	4.95	9.51
1981	94.3	509.26	895.68	5.39	9.48
1982	93.9	604.68	1,000.41	6.44	10.65
1983	87.7	680.52	1,083.13	7.76	12.35
1984	91.5	695.99	1,067.98	7.60	11.66
1985	87.3	667.48	992.86	7.64	11.36
1986	90.2	665.90	969.11	7.39	10.75
1987	88.9	588.16	831.11	6.73	9.51
1988	94.2	614.61	839.90	6.52	8.91
1989	99.5	700.23	921.80	7.04	9.27
1990	87.0	632.18	800.90	7.27	9.21
1991	85.5	634.16	775.32	7.41	9.06
1992	96.2	716.82	855.54	7.45	8.89
1993	96.0	782.53	912.04	8.15	9.50
1994	95.8	828.05	945.45	8.64	9.87
1995	93.3	771.00	861.50	8.26	9.23
1996	98.6	881.55	966.34	8.94	9.80
1997	93.8	872.68	938.35	9.30	10.00
1998	79.0	744.10	790.19	9.42	10.01
1999a	83.9	766.44	801.90	9.14	9.56
2000a	89.3	894.21	913.65	10.01	10.23
2001a	81.0	947.51	894.21	11.70	11.70

NOTE: See Glossary on page 480 for explanation of abbreviations.

¹ Base year 2000 = 100.

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

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

TABLE L-21
Electric Service Companies¹
Average Annual Bill Data
New York State — 2001

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	280,571	\$ 414,148	5,371	1,476	19	7.71
Consolidated Edison	3,100,642	5,345,296	32,497	1,724	10	16.45
New York State E&G	803,234	1,543,331	14,907	1,921	19	10.35
Niagara Mohawk	1,532,357	3,049,044	36,024	1,990	24	8.46
Orange & Rockland	208,068	510,506	5,388	2,454	26	9.47
Rochester G&E	352,510	731,460	9,204	2,075	26	7.95
Composite	6,277,382	\$ 11,593,785	103,391	1,847	16	11.21
-- Residential ---						
Central Hudson	237,756	\$ 179,561	1,806	755	8	9.94
Consolidated Edison	2,676,565	2,179,051	12,050	814	5	18.08
New York State E&G	710,050	734,287	5,288	1,034	7	13.89
Niagara Mohawk	1,382,740	1,211,177	9,834	876	7	12.32
Orange & Rockland	179,856	177,912	1,323	989	7	13.45
Rochester G&E	284,898	229,630	2,045	806	7	11.23
Composite	5,471,865	\$ 4,711,618	32,346	861	6	14.57
--- Commercial ---						
Central Hudson	38,157	\$ 107,755	1,488	2,824	39	7.24
Consolidated Edison	419,568	3,015,917	19,222	7,188	46	15.69
New York State E&G	80,008	335,980	2,883	4,199	36	11.65
Niagara Mohawk	145,892	1,062,048	9,897	7,280	68	10.73
Orange & Rockland	27,546	158,269	1,598	5,746	58	9.90
Rochester G&E	26,639	157,894	1,702	5,927	64	9.28
Composite	737,810	\$ 4,837,863	36,790	6,557	50	13.15
--- Industrial ³ ---						
Central Hudson	918	\$ 68,439	1,305	74,552	1,422	5.24
Consolidated Edison	360	80,623	562	223,953	1,561	14.35
New York State E&G	2,394	204,810	2,848	85,551	1,190	7.19
Niagara Mohawk	1,589	513,670	10,069	323,266	6,337	5.10
Orange & Rockland (includes Power Pick)	127	42,834	692	337,276	5,449	6.19
Rochester G&E	882	98,160	1,472	111,293	1,669	6.67
Composite	6,270	\$ 1,008,536	16,948	160,851	2,703	5.95
--- Sales for Resale ---						
Central Hudson	5	\$ 28,592	371			3.30¢
Consolidated Edison	1	45,032	497			9.06
New York State E&G	NA	139,467	2,715			5.14
Niagara Mohawk	168	230,960	6,068			3.81
Orange & Rockland	NA	119,682	1,665			7.19
Rochester G&E	37,944	199,769	3,602			5.55
Composite	38,118	\$ 763,502	14,918			3.49¢
--- All Other Sales of Electricity ---						
Central Hudson	3,735	\$ 29,801	400			8.29¢
Consolidated Edison	4,148	24,673	166			14.86
New York State E&G	10,782	128,787	1,173			10.98
Niagara Mohawk	1,968	31,189	155			20.12
Orange & Rockland	539	11,808	110			10.73
Rochester G&E	2,147	46,007	384			11.98
Composite	23,319	\$ 272,265	2,388			11.24¢

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 — 2001**

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	1,105,674	\$ 1,261,259	122,437	\$ 1,141	111	\$ 10.30
Central Hudson	65,344	103,220	10,941	1,580	167	9.43
Consolidated Edison	1,051,540	1,145,217	101,247	1,089	96	11.31
Corning Natural Gas	10,951	19,427	933	1,774	85	20.82
Key Span Gas East	454,754	785,252	81,494	1,727	179	9.64
National Fuel Gas Dist. (NY & PA)	681,894	1,018,076	96,556	1,493	142	10.54
New York State E&G	244,225	305,055	38,876	1,249	159	7.85
Niagara Mohawk	514,095	636,810	62,602	1,239	122	10.17
Orange & Rockland	119,124	190,358	23,683	1,598	199	8.04
Rochester G&E	245,101	271,561	26,034	1,108	106	10.43
St. Lawrence	15,151	28,769	3,864	1,899	255	7.45
NUI Waverly ²	1,392	1,828	217	1,313	156	8.44
Composite	4,509,245	\$ 5,251,582	568,885	\$ 1,165	126	\$ 9.23
--- Residential ---						
Brooklyn Union Gas	1,109,925	\$ 960,323	89,332	\$ 865	80	\$ 10.75
Central Hudson	56,275	53,072	4,779	943	85	11.11
Consolidated Edison	927,358	635,408	46,506	685	50	13.66
Corning Natural Gas	10,102	14,357	1,344	1,421	133	10.68
Key Span Gas East	408,704	489,090	36,577,449	1,197	89,496	0.01
National Fuel Gas Dist. (NY & PA)	642,069	787,328	67,442	1,226	105	11.67
New York State E&G	219,868	182,434	22,746	830	103	8.02
Niagara Mohawk	477,853	491,713	47,767	1,029	100	10.29
Orange & Rockland	108,375	125,979	13,562	1,162	125	9.29
Rochester G&E	230,108	230,578	21,830	1,002	95	10.56
St. Lawrence	13,550	1,347	1,641	99	121	0.82
NUI Waverly ²	1,253	1,170	130	934	104	9.01
Composite	4,205,440	\$ 3,972,800	36,894,530	\$ 945	8,773	\$ 0.11
--- Commercial ³ ---						
Brooklyn Union Gas	22,087	\$ 204,402	29,747	\$ 9,254	1,347	\$ 13.75
Central Hudson	8,073	32,576	3,658	4,035	453	8.91
Consolidated Edison	120,612	377,610	39,841	3,131	330	9.48
Corning Natural Gas	793	2,525	258	3,184	326	9.78
Key Span Gas East	41,636	211,749	22,609	5,086	543	9.37
National Fuel Gas Dist. (NY & PA)	38,736	136,441	12,497	3,522	323	10.92
New York State E&G	22,333	72,034	6,432	3,225	288	11.20
Niagara Mohawk	36,085	141,931	14,450	3,933	400	9.82
Orange & Rockland	10,505	39,007	4,863	3,713	463	8.02
Rochester G&E	13,939	34,268	3,477	2,458	249	9.86
St. Lawrence	1,591	6,677	842	4,197	529	7.93
NUI Waverly ²	139	658	86	4,730	617	7.67
Composite	316,390	\$ 1,259,220	138,674	\$ 3,980	438	\$ 8.09
--- Industrial ³ ---						
Brooklyn Union Gas	19,240	\$ 18,684	2,101	\$ 971	109	\$ 8.89
Central Hudson	303	4,834	590	15,954	1,946	8.20
Consolidated Edison	40	393	3,506	9,833	87,649	0.11
Corning Natural Gas	5	169	16	33,734	3,236	10.42
Key Span Gas East	4,411	22,435	276	5,086	63	81.30
National Fuel Gas Dist. (NY & PA)	1,077	20,871	3,113	19,379	2,890	6.70
New York State E&G	366	14,108	1,676	38,547	4,578	8.42
Niagara Mohawk	156	3,166	385	20,295	2,466	8.23
Orange & Rockland	242	24,181	4,131	99,921	17,072	5.85
Rochester G&E	488	3,775	413	7,735	847	9.14
Composite	26,328	\$ 112,616	16,206	\$ 4,109	616	\$ 6.95
--- Sales for Resale ---						
Central Hudson	1	\$ 1,079	378			\$ 2.57
Consolidated Edison	6	25,622	6,207			2.62
Corning Natural Gas	1	2,197	298			4.68
Key Span Gas East	3	61,978	19,912			2.33
National Fuel Gas Dist. (NY & PA)	12	73,436	13,504			2.47
New York State E&G	—	18,760	6,123			2.60
Orange & Rockland	2	1,191	1,127			5.36
Composite	25	\$ 184,263	47,549			\$ 2.55
--- All Other Sales ---						
Brooklyn Union Gas	4,422	\$ 73,407	9,879			\$ 4.82
Central Hudson	692	11,660	1,536			6.02
Consolidated Edison	3,524	103,071	8,300			6.72
Corning Natural Gas	50	179	17			6.57
New York State E&G	1,658	17,718	1,838			5.65
Composite	10,346	\$ 206,035	21,570			\$ 5.36

— Represents zero.

1 Excludes Other Operating Revenues (including Transportation).

2 NUI Waverly is a subsidiary of NUI Corporation.

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

**Annual Electric Energy Requirements, Actual and Projected, by Service Provider
New York State — 1991-2021
(Gigawatt hours)**

Year	New York State Total ¹	Central Hudson Gas & Electric Corporation	Consolidated Edison Company ²	Long Island Power Authority	New York Power Authority ³	New York State Electric & Gas Corporation	Niagara Mohawk Power Corporation	Orange and Rockland Utilities	Rochester Gas and Electric Corporation
--- ACTUAL ---									
1991	145,019	5,246	38,686	17,208	17,834	14,547	36,602	4,535	6,929
1992 ^r	143,431	5,206	38,020	16,803	17,969	14,821	36,591	4,498	6,908
1993	146,909	5,083	39,197	17,233	18,529	14,678	37,194	4,668	7,047
1994	147,760	4,941	39,488	17,302	18,680	14,682	37,880	4,752	7,048
1995 ^r	148,391	4,872	39,990	17,267	18,456	14,631	37,471	4,836	7,174
1996	148,470	4,926	39,582	17,180	18,168	14,787	37,421	4,893	7,238
1997	148,882	4,901	39,869	17,198	17,924	14,706	37,263	4,969	7,207
1998	151,420	4,957	41,649	17,888	20,122	14,609	37,736	5,181	7,285
1999	156,029	5,053	44,237	18,789	20,190	15,133	37,042	5,327	7,408
2000	156,632	5,031	55,639	19,146	19,214	14,412	39,411	5,500	7,412
2001	156,696	5,360	56,654	19,720	NA	14,671	37,081	5,614	7,461
--- FORECAST ---									
2002	156,720	5,369	57,865	20,298	8,974	14,930	37,962	3,880	7,445
2003	158,540	5,372	58,854	20,639	9,044	15,002	38,164	3,945	7,523
2004	160,490	5,440	59,865	21,033	9,103	15,073	38,336	4,010	7,630
2005	162,160	5,510	60,702	21,305	9,156	15,122	38,574	4,070	7,725
2006	163,980	5,582	61,628	21,639	9,208	15,164	38,810	4,130	7,818
2007	165,880	5,725	62,555	21,979	9,259	15,202	39,058	4,190	7,910
2008	167,870	5,817	63,482	22,387	9,313	15,280	39,335	4,245	8,006
2009	169,680	5,905	64,409	22,675	9,370	15,318	39,580	4,305	8,121
2010	171,600	6,001	65,335	23,032	9,424	15,356	39,855	4,360	8,234
2011	173,510	6,092	66,262	23,394	9,482	15,395	40,139	4,415	8,328
2012	175,480	6,184	67,190	23,828	9,537	15,443	40,394	4,475	8,906
2013	177,380	6,278	68,115	24,136	9,592	15,482	40,723	4,535	8,999
2014	179,340	6,367	69,045	24,516	9,647	15,520	41,037	4,590	9,089
2015	181,340	6,457	69,970	24,901	9,703	15,559	41,386	4,650	9,182
2016	183,420	6,549	70,895	25,364	9,760	15,600	41,738	4,705	9,276
2017	185,410	6,641	71,825	25,692	9,817	15,639	42,129	4,765	8,906
2018	187,500	6,735	72,750	26,096	9,874	15,677	42,543	4,825	8,999
2019	189,620	6,833	73,680	26,508	9,932	15,716	42,980	4,880	9,089
2020	191,780	6,885	74,605	27,001	9,991	15,755	43,419	4,940	9,182
2021	193,860	6,985	75,530	27,350	10,050	15,793	43,873	5,000	9,276

NA Not available.

r Revised.

1 Forecast New York State Total is the sum of the member systems, adjusted for diversity and certain transmission losses. Forecasts are rounded to the nearest 10 GWh.

2 The NYPA loads located in Con Edison service territory previously reported under NYPA are now reported under Con Edison.

3 The loads previously served by the Long Island Lighting Company are now served by the Long Island Power Authority.

4 NYPA Forecast consists of strictly NYPA customers.

5 O&R Forecast is adjusted for RECO load that moved out New York Control Area on March 2002.

SOURCE: The New York Independent System Operator 2001 Load and Capacity Data, New York Independent System Operator.

TABLE L-24
Energy Conversion Factors
New York State — 2001

Fuel Type	Approximate Heat Content of Various Fuels	
	Units	2001
Wood	Btu/cord	20,000,000
Anthracite Nonutility Consumption	Btu/Short ton	24,497,000
Bituminous Coal	Btu/Short ton	
Electric Utility Consumption		26,066,000
Residential/Commercial		22,048,000
Industrial		22,157,000
Metallurgical		26,800,000
Natural Gas	Btu/Cubic Foot	
Electric Utility Consumption		1,020
Nonutility Consumption		1,026
Hydro Power	Btu/Kwh	9,978
Nuclear Power	Btu/Kwh	9,978
Electricity Consumption	Btu/Kwh	3,412
Petroleum Products	Btu/barrel	
Distillate Fuel Oil		5,825,000
Ethanol		3,208,800
Jet Fuel, Kerosene Type		5,670,000
Kerosene		5,670,000
Motor Gasoline		5,253,000
LPG (propane)		3,614,000
Residual Fuel Oil		6,287,000

NOTE: See Glossary on page 480 for explanation of abbreviations.

SOURCE: New York State Energy Research and Development Authority.

TABLE L-25
Oil and Gas Drillings and Completions
New York State — 1966-2001

Year	Drillings		Completions									
	Total Started	Waiting on Completion	Total ¹	Oil	Gas	Dry Holes	Service	Disposal	Injection	Solution Mining	Storage	Stratigraphic
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	623 ^e		593	172 ^e	410 ^e	30	11 ^e					
1980	589		579	120	456	10	—			3		
1981	724		705	123	560	19	13			9		
1982	703		690	89	590	13	2			9		
1983 ^r	776		722	55	635	20	1	1	—	8	2	—
1984 ^r	739	127	791	148	605	29	—	1	—	7	1	—
1985 ^r	556	155	544	119	392	25	1	—	—	7	—	—
1986 ^r	311	106 ^a	345	45	278	13	—	—	—	7	1	1
1987 ^r	217	55 ^a	318	20	242	17	—	1	1	25	12	—
1988 ^r	211	25	205	15	164	18	1	—	—	6	—	1
1989 ^r	217	80	245	28	181	12	—	—	14	8	—	2
1990 ^r	221	38	223	43	148	16	—	—	1	12	—	3
1991 ^r	213	12	215	51	133	17	1	—	—	1	12	—
1992 ^r	205	31	192	71	75	17	1	—	—	15	13	—
1993	134	b	165	26	96	19	4	—	2	12	5	2
1994 ^r	133	b	139	34	51	7	—	—	—	6	—	41
1995	111	b	110	20	31	2	2	—	14	14	7	20
1996 ^r	146	b	125	70	35	4	2	2	—	4	8	—
1997 ^r	91	b	66	29	21	3	—	—	—	12	1	—
1998 ^r	74	b	90	7	41	20	—	—	—	19	3	—
1999 ^r	101	b	87	25	28	21	—	—	—	7	—	6
2000 ^r	128	b	159	17	112	16	—	—	—	13	—	1
2001 ^e	137	b	160	23	96	23	—	—	—	12	6	—

— Represents zero.

e Estimated.

r Revised.

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-26
Oil and Gas Reserves
New York State — 1966-2001

Year	Gas Reserves ¹ (MMcf)			Oil Reserves ¹
	Total	In Situ	In Storage Reservoirs	(Mbbbl)
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
1999e,a	222,370	65,160	157,210	846
2000	243,586	96,273	147,313	783
2001e	338,313	174,000	164,313	1,189

NOTE: See Glossary on page 480 for explanation of abbreviations.
 NA Not available.
 e Estimated.
 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-27

**Nuclear Power Plants — Net Generation and Summer Capability
United States by State — 1999**

State	Units	Net Nuclear Generation (million KWh)	Net Summer Capability (million KWh)
United States	104	725,036	97.07
Alabama	5	30,892	4.95
Alaska	—	—	—
Arizona	3	30,416	3.73
Arkansas	2	12,920	1.69
California	4	33,372	4.31
Colorado	—	—	—
Connecticut	2	12,675	2.01
Delaware	—	—	—
District of Columbia	—	—	—
Florida	5	31,526	3.87
Georgia	4	31,478	3.95
Hawaii	—	—	—
Idaho	—	—	—
Illinois	11	81,356	10.53
Indiana	—	—	—
Iowa	1	3,640	0.52
Kansas	1	9,157	1.16
Kentucky	—	—	—
Louisiana	2	13,112	2.01
Maine	—	—	—
Maryland	2	13,312	1.68
Massachusetts	1	1,931	0.67
Michigan	4	14,591	3.92
Minnesota	3	13,316	1.63
Mississippi	1	8,428	1.20
Missouri	1	8,587	1.14
Montana	—	—	—
Nebraska	2	10,091	1.25
Nevada	—	—	—
New Hampshire	1	8,676	1.16
New Jersey	4	28,971	3.86
New Mexico	—	—	—
New York	6	37,019	4.97
North Carolina	5	37,524	4.69
North Dakota	—	—	—
Ohio	2	16,422	2.04
Oklahoma	—	—	—
Oregon	—	—	—
Pennsylvania	9	70,885	9.04
Rhode Island	—	—	—
South Carolina	7	50,814	6.43
South Dakota	—	—	—
Tennessee	3	27,227	3.36
Texas	4	36,760	4.80
Vermont	1	4,059	0.50
Virginia	4	28,301	3.39
Washington	1	6,086	1.12
West Virginia	—	—	—
Wisconsin	3	11,495	1.49
Wyoming	—	—	—

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

— Represents zero.

SOURCE: *Statistical Abstract of the United States, 2002*; United States Energy Information Administration, *Electric Power Annual and Electric Power Monthly*, December issues.

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 fuelwood, 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’s 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 65F, then the degree-days for that day are taken to be zero; otherwise, they are equal to the difference between the average and 65F. 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 70F when the daily mean is 65F or higher. If the average of a day’s high and low temperature extremes are above 65F, the degree-days for that day are taken to be zero; otherwise, they are equal to the difference between the average and 65F. 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- and off-highway 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 watt-hours.

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. The NYPP generating capacity is approximately 33,300,000 KW.

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, the World Trade Center about 32 megawatts per tower. 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 10³
MM	Million or 10⁶
B	Billion or 10⁹
T	Trillion or 10¹²
KWh	Kilowatt-hour
MWh	Megawatt-hour or thousand Kwh
GWh	Gigawatt-hour or million Kwh
cf	Cubic feet
Mcf	Thousand cubic feet
MMcf	Million cubic feet
bbl	Barrel
Mbbl	Thousand barrels
MTons	Thousand tons
Btu	British Thermal Unit
LPG	Liquefied petroleum gas
MGD	Million gallons per day

