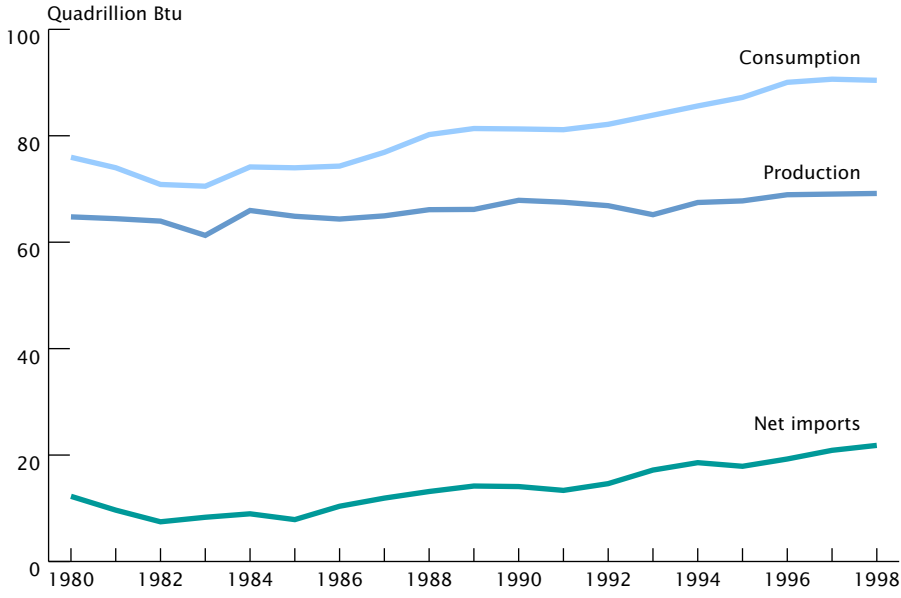
Figure 19.1

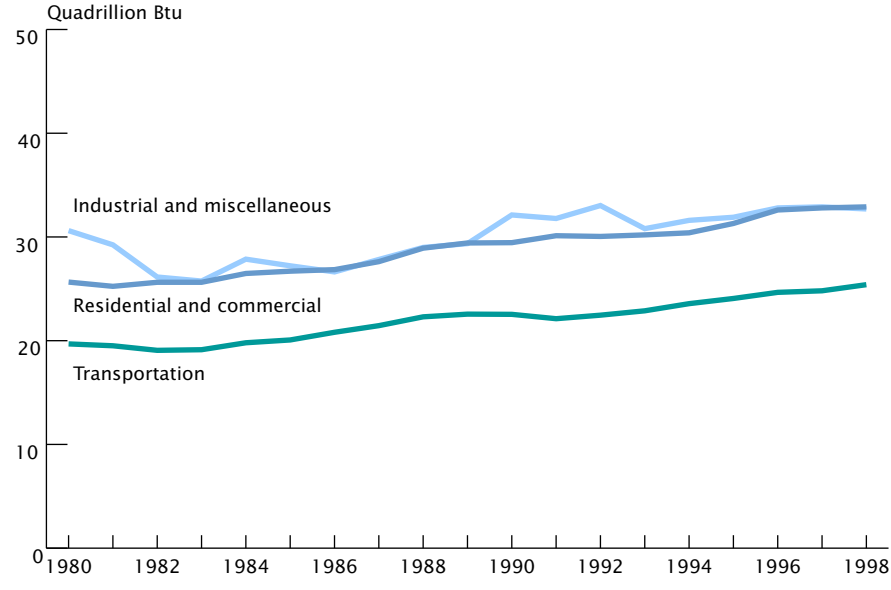
Energy Production, Trade, and Consumption: 1980 to 1998



Source: Chart prepared by U.S. Census Bureau. For data, see Table 952.

Figure 19.2

Energy Consumption, by End-Use Sector: 1980 to 1998



Source: Chart prepared by U.S. Census Bureau. For data, see Table 955.

Section 19

Energy

This section presents statistics on fuel resources, energy production and consumption, electric energy, hydroelectric power, nuclear power, solar energy, wood energy and the electric and gas utility industries. The principal sources are the U.S. Department of Energy's Energy Information Administration (EIA), the Edison Electric Institute, Washington, DC, and the American Gas Association, Arlington, VA. The Department of Energy was created in October 1977 and assumed and centralized the responsibilities of all or part of several agencies including the Federal Power Commission (FPC), the U.S. Bureau of Mines, the Federal Energy Administration, and the U.S. Energy Research and Development Administration. For additional data on transportation, see Section 21; on fuels, see Section 24; and on energy-related housing characteristics, see Section 25.

The EIA, in its *Annual Energy Review*, provides statistics and trend data on energy supply, demand, and prices. Information is included on petroleum and natural gas, coal, electricity, hydroelectric power, nuclear power, solar, wood, and geothermal energy. Among its annual reports are *Annual Energy Review, Electric Power Annual, Natural Gas Annual, Petroleum Supply Annual, State Energy Data Report, State Energy Price and Expenditure Report, Financial Statistics of Selected Electric Utilities, Performance Profiles of Major Energy Producers, Annual Energy Outlook,* and *International Energy Annual.* These various publications contain state, national, and international data on production of electricity, net summer capability of generating plants, fuels used in energy production, energy sales and consumption, and hydroelectric power. The EIA also issues the *Monthly Energy Review*, which presents current supply, disposition, and price data and monthly publications on petroleum, coal, natural gas, and electric power. Data on residential energy consumption, expenditures, and conservation activities are available from EIA's Residential Energy Consumption Survey and are published triennially in *Residential Energy Consumption Survey: Consumption and Expenditures,* and *Residential Energy Consumption Survey: Housing Characteristics*, and other reports.

The Edison Electric Institute's monthly bulletin and annual *Statistical Year Book of the Electric Utility Industry for the Year* contain data on the distribution of electric energy by public utilities; information on the electric power supply, expansion of electric generating facilities, and the manufacture of heavy electric power equipment is presented in the annual *Year-End Summary of the Electric Power Situation in the United States.* The American Gas Association, in its monthly and quarterly bulletins and its yearbook, *Gas Facts*, presents data on gas utilities, financial and operating statistics.

Btu conversion factors—Various energy sources are converted from original units to the thermal equivalent using British thermal units (Btu). A Btu is the amount of energy required to raise the temperature of 1 pound of water 1 degree Fahrenheit (F) at or near 39.2 degrees F. Factors are calculated annually from the latest final annual data available; some are revised as a result. The following list provides conversion factors used in 1995 for production and consumption, in that order, for various fuels: Petroleum, 5.800 and 5.586 mil. Btu per barrel; total coal, 21.278 and 20.852 mil. Btu per short ton; and natural gas (dry), 1,028 Btu per cubic foot for both. The factors for the production of nuclear power and geothermal power were 10,676 and 20,914 Btu per kilowatt-hour, respectively. The fossil fuel steam-electric power plant generation factor of 10,272 Btu per kilowatt-hour was used for hydroelectric power generation and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

No. 952. Energy Supply and Disposition, by Type of Fuel: 1970 to 1998

[**In quadrillion British thermal units (Btu).** For Btu conversion factors, see text, this section]

Type of fuel	1970	1973	1975	1980	1985	1990	1994	1995	1996	1997	1998
Production	**62.07**	**62.06**	**59.86**	**64.76**	**64.87**	**[1]67.87**	**67.46**	**67.76**	**68.92**	**69.04**	**69.16**
Crude oil [2]	20.40	19.49	17.73	18.25	18.99	15.57	14.10	13.89	13.72	13.66	13.22
Natural gas liquids	2.51	2.57	2.37	2.25	2.24	2.18	2.39	2.44	2.53	2.50	2.41
Natural gas	21.67	22.19	19.64	19.91	16.98	18.36	19.35	19.10	19.30	19.39	19.47
Coal	14.61	13.99	14.99	18.60	19.33	22.46	22.07	21.98	22.65	23.16	23.58
Nuclear electric power	0.24	0.91	1.90	2.74	4.15	6.16	6.84	7.18	7.17	6.68	7.16
Hydroelectric power	2.63	2.86	3.16	2.90	2.97	[3]2.94	2.55	3.06	3.42	3.52	3.19
Geothermal	(Z)	0.04	0.07	0.11	0.20	[1]0.18	0.15	0.10	0.11	0.12	0.11
Biofuels [4]	(Z)	(Z)	(Z)	(Z)	(Z)	[1]2.63	2.84	2.85	2.94	2.72	(NA)
Net trade [5]	**-5.73**	**12.68**	**11.75**	**12.25**	**7.87**	**14.08**	**18.57**	**17.89**	**19.26**	**20.89**	**21.82**
Exports	2.66	2.05	2.36	3.72	4.23	4.91	4.13	4.58	4.71	4.63	4.32
Coal	1.94	1.43	1.76	2.42	2.44	2.77	1.88	2.32	2.37	(NA)	(NA)
Natural gas	0.07	0.08	0.07	0.05	0.06	0.09	0.16	0.16	0.16	(NA)	(NA)
Petroleum	0.55	0.49	0.44	1.16	1.66	1.82	1.99	1.99	2.06	(NA)	(NA)
Imports	8.39	14.73	14.11	15.97	12.10	18.99	22.70	22.47	23.96	25.53	26.15
Coal	(Z)	-1.42	-1.74	-2.39	-2.39	-2.71	-1.69	-2.14	-2.19	-2.01	-1.81
Natural gas	0.82	0.98	0.90	0.96	0.90	1.46	2.52	2.75	2.85	2.90	3.04
Petroleum [6]	2.81	6.88	8.71	10.59	6.38	12.54	15.13	15.43	16.08	17.65	18.35
Consumption	**66.43**	**74.28**	**70.55**	**75.96**	**73.98**	**81.28**	**85.60**	**87.21**	**90.04**	**90.63**	**90.42**
Petroleum [7]	29.52	34.84	32.73	34.20	30.92	33.55	34.74	34.66	35.86	36.38	36.57
Natural gas [8]	21.79	22.51	19.95	20.39	17.83	19.30	21.29	22.16	22.56	22.54	21.84
Coal	12.26	12.97	12.66	15.42	17.48	19.10	19.54	19.61	20.51	21.02	21.20
Nuclear electric power	0.24	0.91	1.90	2.74	4.15	6.16	6.84	7.18	7.17	6.68	7.16
Renewable energy	2.67	3.06	3.29	3.23	3.61	6.17	6.28	6.85	7.39	(NA)	(NA)
Hydroelectric power [9]	2.65	2.98	3.19	3.09	3.37	2.93	2.97	3.41	3.78	3.82	3.45
Geothermal	0.01	0.04	0.07	0.11	0.20	0.18	0.15	0.10	0.11	0.12	0.11
Biofuels [4]	(Z)	-	-	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02

- Represents or rounds to zero. NA Not available. Z Less than 50 trillion. [1] There is a discontinuity in this time series between 1989 and 1990 due to the expanded coverage of nonelectric utility use of renewable energy beginning in 1990. [2] Includes lease condensate. [3] There is a discontinuity in this time series between 1989 and 1990; beginning in 1990, pumped storage is removed and expanded coverage of industrial use of hydroelectric power is included. [4] Includes wood, wood waste, peat, wood liquors, railroad ties, pitch, wood sludge, municipal solid waste, agricultural waste, straw, tires, landfill gases, fish oils, and/or other waste. [5] Exports minus imports. [6] Includes imports of crude oil for the Strategic Petroleum Reserve, which began in 1977. Includes imports of unfinished oils and natural gas plant liquids. [7] Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel. [8] Includes supplemental gaseous fuels. [9] Includes net imports of electricity.

Source: U.S. Energy Information Administration, *Annual Energy Review* through 1989; thereafter, *Monthly Energy Review*, March 1999.

No. 953. Energy Supply and Disposition, by Type of Fuel—Estimates, 1995 to 1997, and Projections, 2005 to 2020

[**Quadrillion Btu per year, except percent change**. Projections are "reference" or mid-level forecasts. See report for methodology and assumptions used in generating projections]

Type of fuel	1995	1996	1997	2005	2010	2015	2020
Production, total	**72.31**	**73.66**	**73.22**	**76.89**	**79.16**	**81.28**	**82.85**
Crude oil and lease condensate	13.89	13.69	13.65	12.31	11.83	11.30	10.51
National gas liquids	2.37	2.60	2.57	2.80	3.06	3.32	3.47
Natural gas	19.12	19.32	19.47	22.17	24.44	26.84	28.12
Coal	21.98	22.75	23.33	25.20	25.91	26.95	28.12
Nuclear power	7.19	7.20	6.71	6.73	5.91	4.47	3.83
Imports, total	**22.38**	**23.85**	**25.34**	**32.65**	**36.66**	**39.33**	**42.15**
Crude oil [1]	15.70	16.31	17.86	21.53	23.91	24.96	26.03
Petroleum products [2]	3.19	3.98	3.89	6.45	7.35	8.50	9.92
Natural gas	2.90	3.00	3.06	3.97	4.69	5.15	5.46
Other imports [3]	0.59	0.57	0.54	0.70	0.71	0.72	0.75
Exports, total	**4.50**	**4.57**	**4.44**	**4.47**	**4.62**	**4.59**	**4.68**
Petroleum [4]	2.02	2.04	2.09	2.05	2.11	2.02	2.00
Natural gas	0.16	0.16	0.16	0.21	0.24	0.27	0.32
Coal	2.32	2.37	2.19	2.21	2.27	2.31	2.36
Consumption, total	**90.86**	**93.63**	**94.04**	**104.68**	**110.83**	**115.53**	**119.89**
Petroleum products [5]	34.74	36.03	36.49	41.25	44.22	46.20	48.08
Natural gas	22.18	22.59	22.59	25.89	28.79	31.64	33.17
Coal	19.96	20.60	21.09	23.31	24.06	25.05	26.26
Nuclear power	7.19	7.20	6.71	6.73	5.91	4.47	3.83
Renewable energy/other [6]	6.40	6.81	6.82	7.12	7.45	7.79	8.17

[1] Includes imports of crude oil for the Strategic Petroleum Reserve. [2] Includes imports of finished petroleum products, imports of unfinished oils, alcohols, ethers, and blending components. [3] Includes coal, coal coke (net), and electricity (net). [4] Includes crude oil and petroleum products. [5] Includes natural gas plant liquids, crude oil consumed as a fuel, and nonpetroleum based liquids for blending, such as ethanol. [6] Includes net electricity imports, methanol, and liquid hydrogen.

Source: U.S. Energy Information Administration, *Annual Energy Outlook 1999.*

No. 954. Selected Energy Indicators—Summary: 1970 to 1997

[Btu = British thermal unit. For Btu conversion factors, see text, this section. Minus sign (-) indicates decrease]

Item	1970	1973	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
AVERAGE ANNUAL PERCENT CHANGE [1]													
Gross domestic product [2]	3.3	1.9	-0.2	-0.1	0.7	1.2	-0.9	2.7	2.3	3.4	2.0	2.7	3.7
Energy production, total [3 4]	4.6	-0.2	-1.8	0.3	-0.3	6.8	-0.5	-0.7	-2.4	3.4	0.5	1.8	-
Crude oil [5]	4.2	-0.9	-4.7	0.2	0.2	-3.4	0.8	-3.1	-4.9	-2.7	-1.5	-1.2	-1.1
Natural gas	6.4	-0.0	-6.1	-0.2	-1.2	2.8	-0.7	0.8	1.1	4.0	-1.3	1.0	0.9
Coal	2.2	-0.2	3.4	1.2	-0.4	5.1	-3.9	(Z)	-6.5	8.8	-0.4	3.0	2.3
Energy consumption, total [3 4]	4.6	1.4	-2.6	-0.8	-0.0	3.3	-0.1	1.8	2.1	2.1	1.8	3.3	0.4
Petroleum products	4.8	1.9	-3.1	-1.6	-0.1	-1.9	-2.1	2.1	0.9	2.6	-0.2	3.4	1.2
Natural gas (dry)	6.5	-0.3	-6.0	-0.3	-0.7	-0.5	1.6	2.6	3.4	2.2	4.0	1.8	0.1
Coal	1.1	2.4	-1.2	0.5	0.5	0.9	-1.7	2.4	3.2	1.0	0.3	4.5	2.0
PER CAPITA [6] (mil. Btu)													
Energy production	304	294	278	285	273	284	279	274	265	272	270	273	-
Energy consumption	327	351	327	335	310	338	333	336	339	343	346	354.0	352.0
Energy consumption per dollar of GDP [2] (1,000 Btu)	19.6	19.0	18.2	16.5	13.9	13.7	13.8	13.7	13.7	13.5	13.5	13.6	13.1

- Represents zero. Z Less than .05 percent. [1] Represents percent change from immediate prior year; for example, 1970, change from 1965. Percent change derived from Btu values. [2] Gross domestic product in chained (1992) dollars. For definition of chained, see text, Section 14, Income. [3] Includes types of fuel or power, not shown separately. [4] Due to a lack of consistent historical data, some renewable energy sources are not included. [5] Includes lease condensate. [6] Based on resident population estimated as of July 1.

Source: U.S. Energy Information Administration, *Annual Energy Review,* and *Monthly Energy Review.*

No. 955. Energy Consumption, by End-Use Sector: 1970 to 1997

[There exits a discontinuity in the series between 1989 and 1990 due to the expanded coverage of nonelectric utility use of renewable energy beginning 1990. Btu = British thermal units. For Btu conversion factors, see text, this section]

Year	Total consumption (quad. Btu)	Residential and commercial (quad. Btu)	Industrial and miscellaneous (quad. Btu)	Transportation (quad. Btu)	Percent of total		
					Residential and commercial	Industrial and miscellaneous	Transportation
1970	66.43	21.71	28.63	16.09	32.7	43.1	24.2
1973	74.28	24.14	31.53	18.60	32.5	42.4	25.0
1975	70.55	23.90	28.40	18.25	33.9	40.3	25.9
1976	74.36	25.02	30.24	19.10	33.6	40.7	25.7
1977	76.29	25.39	31.08	19.82	33.3	40.7	26.0
1978	78.09	26.09	31.39	20.61	33.4	40.2	26.4
1979	78.90	25.81	32.61	20.47	32.7	41.3	25.9
1980	75.96	25.65	30.61	19.69	33.8	40.3	25.9
1981	73.99	25.24	29.24	19.51	34.1	39.5	26.4
1982	70.85	25.63	26.14	19.07	36.2	36.9	26.9
1983	70.52	25.63	25.75	19.13	36.3	36.5	27.1
1984	74.14	26.48	27.86	19.80	35.7	37.6	26.7
1985	73.98	26.70	27.22	20.07	36.1	36.8	27.1
1986	74.30	26.85	26.63	20.81	36.1	35.8	28.0
1987	76.89	27.62	27.83	21.45	35.9	36.2	27.9
1988	80.22	28.92	28.99	22.30	36.1	36.1	27.8
1989	81.35	29.42	29.36	22.56	36.2	36.1	27.7
1990	84.12	29.45	32.12	22.54	35.0	38.2	26.8
1991	84.03	30.12	31.78	22.12	35.8	37.8	26.3
1992	85.55	30.05	33.03	22.46	35.1	38.6	26.3
1993	87.37	31.17	33.31	22.88	35.7	38.1	26.2
1994	89.25	31.42	34.26	23.57	35.2	38.4	26.4
1995	90.86	32.30	34.48	24.07	35.5	37.9	26.5
1996	93.87	33.69	35.51	24.66	35.9	37.8	26.3
1997	94.21	33.72	35.67	24.81	35.8	37.9	26.3

Source: U.S. Energy Information Administration, *Annual Energy Review.*

No. 956. Energy Consumption—End-Use Sector and Selected Source, by State: 1996

[**In trillions of Btu (93,398.5 represents 93,398,500,000,000), except as indicated.** For Btu conversion factors, see text this section]

State	Total[1]	Per capita[2] (mil. Btu)	End-use sector				Source				
			Residential	Commercial	Industrial	Transportation	Petroleum	Natural gas (dry)	Coal	Hydroelectric power	Nuclear electric power
United States	**93,398.5**	**349.0**	**18,930.0**	**14,429.2**	**[3]35,420.3**	**24,619.0**	**35,866.2**	**22,598.1**	**20,519.6**	**3,881.3**	**7,167.6**
Alabama	1,975.0	457.3	353.2	182.6	991.3	448.0	562.5	336.3	887.5	114.6	315.6
Alaska	696.8	1,143.6	49.5	66.7	419.2	161.4	224.0	443.6	11.2	13.1	-
Arizona	1,114.8	244.7	251.6	238.2	226.8	398.3	427.4	121.7	343.2	98.0	306.4
Arkansas	1,012.9	401.5	195.3	119.4	430.2	268.0	309.7	277.7	260.2	28.9	141.9
California	7,697.1	238.5	1,340.4	1,193.5	2,289.7	2,873.5	3,341.9	1,865.1	53.9	487.6	362.2
Colorado	1,133.5	291.2	255.0	240.2	302.4	335.9	412.2	314.7	340.3	17.6	-
Connecticut	824.5	252.2	254.7	189.9	164.4	215.5	412.5	131.5	24.4	15.7	66.1
Delaware	273.2	373.4	57.3	42.8	106.0	67.1	139.0	55.9	50.8	0.0	-
Dist. of Columbia	177.4	335.4	38.3	110.0	3.2	25.9	35.4	34.2	0.6	0.0	-
Florida	3,579.4	244.3	1,002.7	761.1	582.0	1,233.6	1,629.6	510.7	694.5	2.2	270.6
Georgia	2,634.5	351.9	561.8	391.9	835.7	845.1	1,017.1	392.2	725.6	51.6	317.9
Hawaii	242.0	203.9	21.5	23.8	76.3	120.3	221.4	2.8	3.6	1.1	-
Idaho	491.1	405.8	91.1	82.9	202.0	115.1	159.4	69.0	7.3	138.9	-
Illinois	3,897.4	327.6	986.5	722.4	1,356.5	832.0	1,272.8	1,140.6	906.9	1.1	741.2
Indiana	2,663.6	454.2	503.5	301.9	1,242.7	615.6	859.2	579.8	1,372.1	4.6	-
Iowa	1,090.7	382.4	240.5	156.3	417.5	276.4	371.3	274.3	380.5	9.7	41.7
Kansas	1,060.0	408.5	210.9	183.3	389.3	276.5	379.7	362.0	338.6	0.1	87.2
Kentucky	1,776.8	454.6	327.7	199.6	848.0	401.5	599.1	248.0	951.8	36.2	-
Louisiana	3,994.9	918.0	326.6	222.0	2,617.3	829.0	1,612.2	1,737.7	205.6	10.0	167.5
Maine	538.4	433.5	102.1	57.8	271.9	106.6	253.2	5.8	5.9	76.3	53.8
Maryland	1,349.1	264.8	387.6	322.3	277.7	361.6	518.2	198.1	292.2	25.4	128.5
Massachusetts	1,533.5	250.7	426.4	371.3	312.9	422.9	690.7	367.5	113.1	16.8	56.6
Michigan	3,249.2	332.4	795.9	577.8	1,099.5	776.0	998.4	1,026.7	789.3	26.2	285.0
Minnesota	1,688.9	360.4	377.8	227.5	635.6	448.0	638.6	375.1	345.5	92.9	128.5
Mississippi	1,098.4	402.3	205.3	117.5	432.4	343.2	424.0	277.4	128.1	0.0	98.0
Missouri	1,744.7	323.0	459.4	337.1	374.8	573.5	721.1	297.5	629.7	12.8	94.4
Montana	395.1	449.6	70.4	55.6	167.6	101.5	175.3	63.2	135.7	143.0	-
Nebraska	604.4	364.8	140.5	123.2	160.1	180.6	235.6	133.8	179.0	16.6	100.5
Nevada	575.4	343.2	108.9	88.8	198.1	179.5	216.1	127.6	169.5	22.4	-
New Hampshire	302.2	257.7	83.9	55.6	78.9	83.8	156.6	19.4	36.2	29.2	104.6
New Jersey	2,574.9	319.8	565.3	520.4	655.0	834.1	1,228.0	624.6	62.4	[4]-1.0	117.1
New Mexico	595.2	344.1	87.5	101.8	217.5	188.4	209.4	228.2	279.2	2.2	-
New York	4,129.6	227.7	1,104.7	1,118.9	949.8	956.2	1,569.3	1,159.9	294.3	343.3	374.2
North Carolina	2,416.5	325.4	583.1	414.1	773.3	646.0	885.1	220.8	687.0	66.2	358.2
North Dakota	351.9	549.1	61.7	46.5	168.2	75.5	119.8	51.5	404.1	40.8	0.0
Ohio	4,115.7	367.9	930.8	649.2	1,640.5	895.2	1,236.6	972.0	1,448.8	4.1	147.9
Oklahoma	1,405.7	423.8	273.1	196.2	550.3	386.0	469.6	580.2	349.9	21.5	-
Oregon	1,108.1	341.6	234.9	180.0	386.3	306.9	363.9	175.3	20.3	491.3	-
Pennsylvania	3,927.3	326.7	935.8	607.8	1,477.9	905.8	1,329.3	752.7	1,432.3	23.2	729.5
Rhode Island	235.9	238.9	72.1	52.2	52.4	59.2	97.3	87.7	0.1	9.4	-
South Carolina	1,426.8	379.4	291.5	191.0	614.1	330.2	445.1	154.1	352.5	23.6	462.9
South Dakota	244.7	331.6	61.8	41.1	61.5	80.4	116.7	37.4	33.2	82.5	-
Tennessee	2,067.9	385.2	475.3	139.4	905.1	548.0	690.9	289.3	648.6	111.6	243.5
Texas	11,278.2	580.2	1,310.2	1,080.4	6,542.3	2,345.3	5,166.4	4,123.0	1,475.4	9.9	379.9
Utah	674.4	327.5	120.0	106.5	254.2	193.7	251.6	167.8	355.0	10.8	-
Vermont	162.4	275.7	46.1	27.3	36.7	52.4	85.2	7.4	-	41.0	40.4
Virginia	2,115.2	314.1	518.7	451.9	532.5	612.2	792.9	248.4	378.8	6.2	279.2
Washington	2,135.2	380.6	435.5	321.2	757.8	620.8	842.1	247.5	90.9	1,045.5	59.4
West Virginia	803.4	442.5	150.9	97.2	391.1	164.2	257.6	164.5	898.3	14.8	-
Wisconsin	1,791.4	346.5	403.6	278.9	708.8	400.3	550.0	408.0	452.8	29.3	107.5
Wyoming	423.2	882.1	41.0	44.5	235.3	102.3	145.5	107.6	473.0	12.7	-

- Represents zero. [1] Sources of energy includes geothermal, wood and waste, and net interstate sales of electricity, including losses, not shown separately. [2] Based on estimated resident population as of July 1. [3] Includes 27.2 trillion Btu of net imports of coal coke not allocated by State. [4] A negative number occurs when more electricity is expended than is created to provide electricity during peak demand periods.

Source: U.S. Energy Information Administration, *State Energy Data Report,* annual.

No. 957. Energy Expenditures—End-Use Sector and Selected Source, by State: 1995

[**In millions of dollars (515,800 represents $515,800,000,000), except as indicated.** End-use sector and electric utilities exclude expenditures on energy sources such as hydropower, solar, wind, and geothermal. Also excludes expenditures for reported amounts of energy consumed by the energy industry for production, transportation, and processing operations]

State	Total [1]	End-use sector					Source		
		Residential	Commercial	Industrial	Transportation	Petroleum products	Natural gas	Coal	Electricity sales
U.S.	**515,800**	**128,702**	**91,648**	**107,975**	**187,474**	**237,491**	**74,150**	**26,911**	**205,944**
AL	9,172	2,107	1,051	2,455	3,560	4,121	1,033	1,313	3,686
AK	1,975	321	334	190	1,129	1,333	211	34	468
AZ	7,688	1,913	1,594	1,009	3,172	3,477	498	486	3,700
AR	5,218	1,280	658	1,194	2,087	2,385	732	384	2,103
CA	51,146	11,415	10,689	8,007	21,035	22,841	8,066	110	20,831
CO	6,312	1,429	1,204	909	2,770	3,160	980	356	2,142
CT	6,713	2,234	1,585	804	2,090	2,997	879	45	2,938
DE	1,546	431	253	317	545	762	205	83	658
DC	1,257	264	729	16	249	299	229	-	735
FL	22,956	7,107	4,503	2,074	9,272	10,847	1,517	1,169	11,745
GA	14,604	3,724	2,482	2,801	5,597	6,483	1,650	1,220	6,329
HI	2,165	365	376	425	998	1,318	39	5	1,018
ID	2,246	441	321	539	944	1,160	248	16	802
IL	23,343	6,493	4,472	5,295	7,084	9,123	4,397	1,325	9,657
IN	12,849	2,875	1,548	3,670	4,755	5,735	2,145	1,818	4,516
IA	6,092	1,512	813	1,640	2,127	2,933	1,009	389	2,069
KS	5,350	1,240	958	1,163	1,989	2,506	896	299	1,981
KY	8,239	1,642	922	2,319	3,357	4,260	796	1,083	3,004
LA	13,029	2,099	1,359	5,277	4,294	6,832	2,672	338	4,056
ME	2,836	831	415	624	965	1,642	31	16	1,097
MD	8,844	2,716	1,996	924	3,208	3,962	944	434	3,964
MA	11,845	3,600	2,830	1,588	3,827	5,265	2,109	177	4,705
MI	18,163	4,668	3,521	3,922	6,053	7,516	3,812	1,151	6,636
MN	8,826	2,113	1,071	2,041	3,601	4,526	1,242	410	2,983
MS	5,325	1,223	692	1,182	2,228	2,642	626	160	2,190
MO	10,094	2,691	1,756	1,486	4,161	4,982	1,193	594	3,892
MT	2,011	350	257	477	929	1,122	251	125	614
NE	3,372	739	591	615	1,427	1,730	506	139	1,128
NV	3,117	647	482	709	1,279	1,473	463	214	1,236
NH	2,314	738	475	312	789	1,153	110	57	1,056
NJ	17,498	4,689	4,065	2,765	5,980	7,708	2,938	98	6,944
NM	2,901	551	595	527	1,227	1,537	320	390	1,085
NY	31,573	10,258	9,447	3,599	8,269	11,225	6,401	431	14,435
NC	14,399	4,048	2,331	2,922	5,098	6,422	926	986	6,885
ND	1,660	313	217	526	606	836	114	482	448
OH	23,272	6,135	3,983	5,792	7,362	9,071	4,096	1,977	9,829
OK	6,338	1,542	946	1,256	2,594	3,008	1,333	355	2,295
OR	5,642	1,162	834	1,071	2,574	2,897	567	25	2,135
PA	24,172	7,079	4,150	5,332	7,611	9,835	3,765	2,006	9,937
RI	1,874	579	397	322	577	819	370	-	689
SC	7,585	1,956	1,095	1,953	2,581	3,132	621	487	3,703
SD	1,464	350	211	241	662	863	132	40	460
TN	10,379	2,315	730	3,063	4,271	4,968	1,017	796	4,224
TX	46,965	8,529	6,254	16,888	15,295	25,974	7,224	1,815	15,675
UT	3,160	601	484	576	1,499	1,693	439	410	968
VT	1,219	381	209	156	474	690	38	-	483
VA	12,412	3,520	2,328	1,674	4,890	5,810	1,140	520	5,312
WA	9,558	1,966	1,371	1,625	4,596	5,081	835	111	3,569
WV	4,036	903	524	1,143	1,466	1,978	538	1,113	1,375
WI	9,233	2,423	1,359	1,890	3,561	4,418	1,607	531	3,084
WY	1,708	199	183	566	761	945	244	388	473

- Represents zero. [1] Includes sources not shown separately. Total expenditures are the sum of purchases for each source (including electricity sales) less electric utility purchases of fuel.

Source: U.S. Energy Information Administration, *State Energy Price and Expenditure Report,* annual.

No. 958. Energy Expenditures and Average Fuel Prices, by Source and Sector: 1970 to 1995

[**82,542 represents $82,542,000,000.** For definition of Btu, see text, this section. End-use sector and electric utilities exclude expenditures and prices on energy sources such as hydropower, solar, wind, and geothermal. Also excludes expenditures for reported amounts of energy consumed by the energy industry for production, transportation, and processing operations]

Source and sector	1970	1973	1975	1980	1985	1990	1991	1992	1993	1994	1995
EXPENDITURES (mil. dol.)											
Total [1 2]	**82,542**	**111,591**	**171,680**	**373,868**	**436,619**	**472,583**	**470,287**	**475,155**	**492,663**	**505,878**	**515,800**
Natural gas	10,891	13,933	20,061	51,061	72,938	64,102	64,697	68,400	75,941	77,716	74,150
Petroleum products [2]	48,051	65,257	103,756	238,377	224,371	235,984	223,390	222,326	223,466	230,267	237,491
Motor gasoline	31,596	39,667	59,446	124,408	118,044	126,472	123,051	125,158	126,397	129,900	136,475
Coal	4,594	6,251	13,047	22,648	29,719	28,381	27,866	27,417	27,857	27,251	26,911
Electricity sales	23,351	33,780	50,680	98,098	149,242	176,744	184,823	186,962	196,589	200,893	205,944
Residential sector	20,083	27,078	36,844	68,825	98,307	110,147	115,666	116,118	125,270	127,186	128,702
Commercial sector	10,668	15,107	22,835	46,881	70,265	78,870	81,427	82,366	86,579	89,451	91,648
Industrial sector	16,421	23,502	41,067	94,489	106,886	103,017	101,764	103,956	106,052	109,298	107,975
Transportation sector [2]	35,370	45,904	70,934	163,674	161,161	180,550	171,431	172,714	174,762	179,944	187,474
Motor gasoline	30,525	38,598	57,992	121,809	115,201	123,775	120,557	122,700	124,546	127,945	134,470
Electric utilities	4,316	7,817	16,396	37,435	42,558	38,441	36,500	35,764	36,651	35,955	34,671
AVERAGE FUEL PRICES (dol. per mil. Btu)											
All sectors	**1.65**	**2.02**	**3.33**	**6.91**	**8.40**	**8.27**	**8.22**	**8.15**	**8.24**	**8.29**	**8.28**
Residential sector	2.12	2.73	3.83	7.55	11.14	11.44	11.62	11.52	11.89	12.22	12.13
Commercial sector	1.97	2.56	4.09	7.88	11.71	12.02	12.20	12.32	12.72	12.90	12.78
Industrial sector	0.83	1.09	2.20	4.71	6.05	5.28	5.21	5.17	5.16	5.16	5.01
Transportation sector	2.31	2.57	4.02	8.61	8.26	8.27	7.98	7.91	7.87	7.88	8.04
Electric utilities	0.32	0.46	0.96	1.75	1.85	1.46	1.37	1.34	1.35	1.30	1.23

[1] Includes electricity sales; excludes electricity generation. [2] Includes sources or fuel types not shown separately.

Source: U.S. Energy Information Administration, *State Energy Price and Expenditure Report,* annual.

No. 959. Residential Energy Consumption, Expenditures, and Average Price, 1980 to 1993, and by Region, 1993

[**For period April to March for 1980-1985; January to December for 1987 to 1993.** Excludes Alaska and Hawaii in 1980. Covers occupied units only. Excludes household usage of gasoline for transportation and the use of wood or coal. Based on Residential Energy Consumption Survey; see source. For composition of regions, see inside front cover. Btu = British thermal unit; see text, this section]

Type of fuel	Unit	1980	1983	1985	1987	1990	1993				
							Total	North-east	Mid-west	South	West
CONSUMPTION											
Total	**Quad. Btu**	**9.74**	**8.62**	**9.04**	**9.13**	**9.22**	**10.01**	**2.38**	**3.13**	**2.95**	**1.55**
Avg. per household	Mil. Btu	126	103	105	101	98	103.6	122.4	134.3	87.9	76.0
Natural gas	Quad. Btu	5.31	4.77	4.98	4.83	4.86	5.27	1.11	2.07	1.18	0.91
Electricity	Quad. Btu	2.42	2.42	2.48	2.76	3.03	3.28	0.47	0.74	1.51	0.56
Fuel oil, kerosene	Quad. Btu	1.71	1.14	1.26	1.22	1.04	1.07	0.78	0.13	0.13	0.03
Liquid petroleum gas	Quad. Btu	0.31	0.29	0.31	0.32	0.28	0.38	0.03	0.19	0.13	0.04
EXPENDITURES											
Total	**Bil. dol.**	**63.2**	**87.8**	**97.0**	**97.7**	**110.2**	**123.91**	**29.72**	**31.12**	**43.67**	**19.41**
Avg. per household	Dollars	815	1,048	1,123	1,080	1,172	1,282	1,526	1,336	1,304	953
Natural gas	Bil. dol.	17.8	27.1	29.8	26.1	27.3	32.04	8.60	11.13	7.24	5.07
Electricity	Bil. dol.	32.6	48.4	54.5	61.6	71.5	81.08	15.76	17.55	34.08	13.69
Fuel oil, kerosene	Bil. dol.	10.7	9.6	9.6	7.2	8.3	6.98	5.00	0.84	0.9	0.24
Liquid petroleum gas	Bil. dol.	2.1	2.7	3.1	2.8	3.1	3.81	0.35	1.59	1.46	0.41
AVERAGE PRICE											
Total	**Dol./mil. Btu.**	**6.49**	**10.18**	**10.73**	**10.71**	**12.00**	**12.38**	**12.47**	**9.94**	**14.82**	**12.54**
Natural gas	Dol./mil. Btu	3.36	5.67	5.97	5.41	5.60	6.07	7.73	5.38	6.13	5.55
Electricity	Dol./mil. Btu	13.46	19.98	21.94	22.34	23.60	24.69	33.55	23.67	22.61	24.23
Fuel oil, kerosene	Dol./mil. Btu	6.29	8.42	7.64	5.89	7.90	6.52	6.41	6.46	6.92	8.00
Liquid petroleum gas	Dol./mil. Btu	6.71	9.42	9.91	8.91	11.20	10.04	13.90	8.55	11.13	10.99

Source: U.S. Energy Information Administration, *Household Energy Consumption and Expenditures, 1993,* and prior reports. Survey not conducted in 1984, 1986, 1988, and 1989.

No. 960. Residential Energy Consumption and Expenditures, by Type of Fuel and Selected Household Characteristic: 1993

[**For period January through December.** Quad. = quadrillion. See headnote, Table 959]

Characteristic	Consumption (Btu)					Expenditures				
	Total [1] (quad.)	Avg. per household [1] (mil.)	Natural gas (quad.)	Electricity (quad.)	Fuel oil [2] (quad.)	Total [1] (bil. dol.)	Avg. per household [1] (dol.)	Natural gas (bil. dol.)	Electricity (bil. dol.)	Fuel oil [2] (bil. dol.)
Total households	**10.01**	**104**	**5.27**	**3.28**	**1.02**	**123.9**	**1,282**	**32.04**	**81.08**	**6.61**
Single family detached	7.21	121	3.77	2.34	0.78	87.0	1,462	22.23	56.44	5.20
Single family attached	0.70	96	0.41	0.24	0.05	9.3	1,266	2.65	6.22	0.34
Two-to-four unit building	0.80	100	0.54	0.17	0.09	8.9	1,112	3.56	4.72	0.58
Five-or-more unit building	0.83	52	0.43	0.32	0.08	12.0	740	2.84	8.76	0.37
Mobile home	0.46	82	0.14	0.21	0.02	6.7	1,203	0.76	4.93	0.12
Year house built:										
1939 or earlier	2.63	129	1.55	0.51	0.43	27.0	1,325	9.60	13.34	2.75
1940 to 1949	0.77	112	0.44	0.20	0.10	8.6	1,240	2.70	4.91	0.64
1950 to 1959	1.49	114	0.85	0.42	0.19	18.1	1,387	5.28	11.22	1.28
1960 to 1969	1.55	103	0.90	0.49	0.11	18.9	1,257	5.35	12.26	0.69
1970 to 1979	1.59	88	0.69	0.71	0.12	22.2	1,222	3.92	16.74	0.78
1980 to 1984	0.68	80	0.29	0.35	0.02	10.6	1,247	1.73	8.48	0.13
1985 to 1987	0.47	85	0.20	0.23	0.02	7.1	1,284	1.22	5.47	0.11
1988 to 1990	0.43	90	0.18	0.21	0.02	6.2	1,322	1.05	4.81	0.13
1991 to 1993	0.40	89	0.20	0.16	0.01	5.4	1,200	1.19	3.85	0.09
1993 family income:										
Less than $5,000	0.32	80	0.18	0.10	0.03	4.0	991	1.14	2.52	0.18
$5,000 to $9,999	0.86	81	0.48	0.26	0.08	10.3	977	2.94	6.42	0.47
$10,000 to $14,999	1.00	90	0.58	0.29	0.09	11.7	1,051	3.51	7.17	0.58
$15,000 to $19,999	0.95	99	0.52	0.30	0.09	11.2	1,163	3.08	7.08	0.55
$20,000 to $24,999	0.84	97	0.43	0.28	0.08	10.3	1,182	2.62	6.75	0.51
$25,000 to $34,999	1.45	104	0.70	0.51	0.16	18.3	1,302	4.20	12.24	1.05
$35,000 to $49,999	1.90	109	0.96	0.65	0.21	24.1	1,379	5.87	16.18	1.36
$50,000 to $74,999	1.51	119	0.78	0.52	0.17	18.9	1,493	4.66	12.66	1.11
$75,000 or more	1.17	140	0.64	0.38	0.12	15.1	1,809	4.02	10.06	0.81

[1] Includes liquid petroleum gas not shown separately. [2] Includes kerosene.

Source: U.S. Energy Information Administration, *Household Energy Consumption and Expenditures, 1993.*

No. 961. Manufacturing Primary Energy Consumption for all Purposes, by Type of Fuel and Major Industry Group: 1994

[**In trillions of Btu (21,663 represents 21,663,000,000,000,000).** Estimates represented in this table are for the primary consumption of energy for heat and power and as feedstocks or raw material inputs. Primary consumption is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; woodchips, bark, and woodwaste from wood purchased as a raw material input; and waste materials such as wastepaper and packing materials. Primary consumption excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting. Based on the 1994 Manufacturing Energy Consumption Survey and subject to sampling variability]

Industry	SIC [1] code	Total	Net electricity [2]	Residual fuel oil	Distillate fuel oil [3]	Natural gas [4]	LPG	Coal	Coke and breeze	Other [5]
All industries	**(X)**	**21,663**	**2,656**	**490**	**158**	**6,835**	**1,631**	**2,105**	**449**	**7,926**
Food and kindred products	20	1,193	198	30	19	631	(D)	165	(D)	141
Tobacco products	21	(D)	3	1	(D)	(D)	(D)	(D)	-	(D)
Textile mill products	22	310	111	17	7	117	4	40	-	14
Apparel and other textile products	23	(D)	26	(D)	1	25	(D)	(D)	-	(D)
Lumber and wood products	24	491	68	2	25	48	(D)	(D)	-	341
Furniture and fixtures	25	69	22	(Z)	1	24	1	3	-	18
Paper and allied products	26	2,665	223	173	9	575	5	307	-	1,373
Printing and publishing	27	112	59	(D)	2	48	(D)	-	-	2
Petroleum and coal products	2813	104	80	-	(D)	23	(D)	(Z)	1	1
Rubber and misc. plastic products	30	287	149	10	4	110	3	5	-	6
Leather and leather products	31	(D)	3	2	(D)	(D)	(D)	-	-	(Z)
Stone, clay, and glass products	32	944	123	7	23	432	4	274	8	73
Primary metal industries	33	2,462	493	43	13	811	5	922	424	85
Industrial machinery & equipment	35	246	109	(D)	4	111	3	11	(D)	5
Electric and electronic equipment	36	243	113	3	2	88	2	(D)	(D)	(S)
Transportation equipment	37	363	132	11	7	157	3	28	2	23
Instruments and related products	38	107	46	4	1	29	(D)	(D)	-	3
Misc. manufacturing industries	39	(D)	19	1	1	19	1	1	-	(D)

- Represents or rounds to zero. D Withheld to avoid disclosing data for individual establishments. S Withheld because Relative Standard Error is greater than 50 percent. X Not applicable. Z Less than 0.5 trillion Btu. [1] Standard Industrial Classification Code; see text, Section 17, Business. [2] Net electricity is obtained by aggregating purchases, transfers in, and generation from noncombustible renewable resources minus quantities sold and transferred out. Excludes electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal). [3] Includes Nos.1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels. [4] Includes natural gas obtained from utilities, transmission pipelines, and any other supplier such as brokers and producers. [5] Includes net steam, and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs.

Source: U.S. Energy Information Administration, *Manufacturing Energy Consumption 1994.*

No. 962. Commercial Buildings—Energy Consumption and Expenditures: 1995

[Covers buildings using one or more major fuel. Excludes industrial buildings, predominantly residential buildings, and buildings of less than 1,000 sq. ft. Based on a sample survey of building representatives and energy suppliers; therefore, subject to sampling variability. For characteristics of commercial buildings, see tables in Section 25, Construction and Housing. For composition of regions, see inside front cover]

Building characteristic	All buildings using any major fuel		Consumption (tril. Btu)			Expenditures (mil. dol.)		
	Number (1,000)	Square feet (mil.)	Major fuel, total [1]	Electricity	Natural gas	Major fuel, total [1]	Electricity	Natural gas
All buildings	**4,579**	**58,772**	**5,321**	**2,608**	**1,946**	**69,918**	**56,621**	**9,018**
Region:								
Northeast	725	11,883	1,035	436	297	16,479	13,059	1,739
Midwest	1,139	14,322	1,497	558	750	15,076	10,946	2,947
South	1,750	20,830	1,684	1,027	528	22,211	19,009	2,560
West	964	11,736	1,106	587	371	16,152	13,607	1,772
Year constructed:								
1919 or before	353	3,673	292	99	135	3,310	2,290	655
1920 to 1945	562	6,710	508	173	210	5,665	4,012	966
1946 to 1959	867	9,298	826	325	391	9,813	7,395	1,796
1960 to 1969	718	10,858	1,024	472	375	13,135	10,405	1,750
1970 to 1979	813	11,333	1,125	615	393	15,366	13,005	1,695
1980 to 1989	846	12,252	1,059	648	288	15,895	13,844	1,397
1990 to 1992	218	2,590	297	163	100	4,011	3,318	510
1993 to 1995	202	2,059	190	113	54	2,722	2,353	249
Principal activity within building:								
Assembly [2]	682	8,011	677	252	232	7,876	5,688	1,145
Education	309	7,740	614	221	245	7,129	5,168	1,117
Food sales	137	642	137	119	18	2,634	2,532	97
Food service	285	1,353	332	166	158	4,817	3,931	851
Health care	105	2,333	561	211	258	5,261	3,901	838
Lodging	158	3,618	461	187	213	5,114	3,838	966
Mercantile/services	1,289	12,728	973	508	395	14,025	11,655	1,979
Office	705	10,478	1,019	676	239	15,849	14,020	1,150
Warehouse and storage	580	8,481	325	176	106	4,709	3,934	559
Other	67	1,004	173	75	55	1,865	1,473	197
Vacant	261	2,384	51	18	26	638	481	119
Square footage:								
1,001 to 5,000	2,399	6,338	708	380	264	11,577	9,696	1,483
5,001 to 10,000	1,035	7,530	624	238	272	8,063	6,055	1,439
10,001 to 25,000	745	11,617	824	384	356	11,099	8,911	1,775
25,001 to 50,000	213	7,676	630	316	231	8,676	7,005	1,159
50,001 to 100,000	115	7,968	698	363	243	8,824	7,194	1,091
100,001 to 200,000	48	6,776	687	337	244	7,859	6,283	958
200,001 to 500,000	19	5,553	636	307	211	7,291	5,908	729
500,001 and over	6	5,313	514	282	125	6,530	5,568	385

[1] Includes fuel oil, propane, and purchased steam not shown separately. [2] Includes public assembly, public order and safety, and religious worship.

Source: U.S. Energy Information Administration, *Commercial Buildings Energy Consumption and Expenditures, 1995.*

No. 963. Energy Prices: 1980 to 1997

Product	Unit	1980	1990	1991	1992	1993	1994	1995	1996	1997
Crude oil domestic first purchase price:										
Nominal	Dol./bbl	21.6	20.0	16.5	16.0	14.3	13.2	14.6	18.5	17.2
Real [1]	Dol./bbl	35.8	21.4	17.0	16.0	13.9	12.6	13.6	16.8	15.3
Motor gasoline	Cents/gal.	122.1	121.7	119.6	119.0	117.3	117.4	120.5	128.8	129.1
Leaded regular	Cents/gal.	119.1	114.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Unleaded regular	Cents/gal.	124.5	116.4	114.0	112.7	110.8	111.2	114.7	123.1	123.4
Premium	Cents/gal.	(NA)	134.9	132.1	131.6	130.2	130.5	133.6	141.3	141.6
Natural gas, residential	Dol./1,000 cu. ft.	3.7	5.8	5.8	5.9	6.2	6.4	6.1	6.3	6.9
Heating oil, residential	Cents/gal.	161.3	113.6	104.7	93.4	88.8	84.3	80.6	90.1	(NA)
Coal, all	Dol./short tons	28.8	30.5	30.0	29.4	28.6	28.0	27.0	26.5	26.2
Electricity, total	Cents/ kilowatthour	4.7	6.6	6.7	6.8	6.9	6.9	6.9	6.9	6.9
Uranium, domestic purchases	Dol./lb	(NA)	15.7	13.7	13.5	13.1	10.3	11.1	13.8	12.9

NA Not available. [1] In chained (1992) dollars, calculated by using gross domestic product implicit price deflators.

Source: U.S. Energy Information Administration, *Annual Energy Review.*

No. 964. Fossil Fuel Prices in Current and Constant (1992) Dollars: 1970 to 1997

[**In cents per million British thermal units (Btu), except as indicated.** All fuel prices taken as close to the point of production as possible. See text, this section, for explanation of Btu conversions from mineral fuels]

Fuel	1970	1973	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
CURRENT DOLLARS													
Composite [1]	0.32	0.40	0.82	2.04	2.51	1.84	1.67	1.66	1.67	1.53	1.47	1.82	1.84
Crude oil	0.55	0.67	1.32	3.72	4.15	3.45	2.85	2.76	2.46	2.27	2.52	3.18	2.97
Natural gas	0.15	0.20	0.40	1.45	2.26	1.55	1.48	1.57	1.84	1.67	1.40	1.96	2.18
Bituminous coal [2]	0.26	0.36	0.84	1.09	1.15	1.00	0.99	0.97	0.93	0.91	0.88	0.87	0.85
Anthracite coal	0.49	0.62	1.50	1.86	2.04	1.75	1.61	1.52	1.46	1.60	1.76	1.63	1.51
CONSTANT (1992) DOLLARS													
Composite [1]	1.04	11.3	1.95	3.39	3.20	1.97	1.72	1.66	1.63	1.46	1.37	1.65	1.64
Crude oil	1.80	1.90	3.14	6.17	5.29	3.69	2.93	2.76	2.40	2.16	2.34	2.89	2.64
Natural gas	0.50	0.57	0.96	2.40	2.88	1.65	1.52	1.57	1.80	1.59	1.30	1.78	1.94
Bituminous coal [2]	0.86	1.03	1.99	1.81	1.46	1.06	1.02	0.97	0.90	0.86	0.82	0.79	0.76
Anthracite coal	1.60	1.75	3.55	3.08	2.60	1.86	1.66	1.52	1.42	1.52	1.64	1.48	1.34

[1] Weighted by relative importance of individual fuels in total fuels production. [2] Includes subbituminous and lignite.

Source: U.S. Energy Information Administration, *Annual Energy Review.*

No. 965. Energy Imports and Exports, by Type of Fuel: 1970 to 1997

[**In quadrillion of Btu.** For definition of Btu, see text, this section]

Type of fuel	1970	1973	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997
Net imports:[1]												
Coal	-1.94	-1.45	-1.74	-2.39	-2.39	-2.70	-2.58	-1.78	-1.69	-2.14	-2.19	-2.00
Natural gas (dry)	0.77	0.98	0.91	0.96	0.89	1.46	1.94	2.25	2.52	2.74	2.85	2.88
Petroleum	6.92	12.98	12.51	13.50	8.95	15.30	14.96	16.40	17.26	16.87	18.21	19.12
Other [2]	-0.04	0.14	0.08	0.19	0.41	0.03	0.33	0.32	0.49	0.42	0.39	0.39
Imports:												
Coal	(Z)	(Z)	0.02	0.03	0.05	0.07	0.10	0.18	0.19	0.18	0.18	2.19
Natural gas (dry)	0.85	1.06	0.98	1.01	0.95	1.55	2.16	2.40	2.68	2.90	3.00	3.04
Petroleum	7.47	13.47	12.95	14.66	10.61	17.12	16.97	18.51	19.25	18.86	20.27	21.22
Other [2]	0.07	0.20	0.16	0.28	0.49	0.26	0.44	0.45	0.59	0.54	0.52	0.52
Exports:												
Coal	1.94	1.43	1.76	2.42	2.44	2.77	2.68	1.96	1.88	2.32	2.37	2.19
Natural gas (dry)	0.07	0.08	0.07	0.05	0.06	0.09	0.22	0.14	0.16	0.16	0.16	0.16
Petroleum	0.55	0.49	0.44	1.16	1.66	1.82	2.01	2.12	1.99	1.99	2.06	2.10
Other [2]	0.11	0.06	0.08	0.09	0.08	0.23	0.11	0.13	0.09	0.11	0.12	0.13

Z Less than .005 quadrillion Btu. [1] Net imports equals imports minus exports. Minus sign (-) denotes an excess of exports over imports. [2] Coal coke and small amounts of electricity transmitted across U.S. borders with Canada and Mexico.

Source: U.S. Energy Information Administration, *Annual Energy Review.*

No. 966. U.S. Foreign Trade in Selected Mineral Fuels: 1970 to 1997

[Minus sign (-) indicates an excess of imports over exports]

Mineral fuel	Unit	1970	1973	1975	1980	1985	1990	1994	1995	1996	1997
Natural gas:											
Imports	Bil. cu. ft.	821	1,033	953	985	950	1,532	2,624	2,841	2,937	2,990
Exports	Bil. cu. ft.	70	77	73	49	55	86	162	162	154	153
Net trade	Bil. cu. ft.	-751	-956	-880	-936	-894	-1446	-2462	-2687	-2,784	-2,833
Crude oil:											
Imports [1]	Mil. bbl.	483	1,184	1,498	1,926	1,168	2,151	2,578	2,639	2,740	3,002
Exports	Mil. bbl.	5	1	2	105	75	40	36	35	40	39
Net trade	Mil. bbl.	-478	-1,183	-1,496	-1,821	-1,093	-2,112	-2,542	-2,604	-2,700	-2,963
Petroleum products:											
Imports	Mil. bbl.	765	1,099	712	603	681	775	706	586	719	707
Exports	Mil. bbl.	89	84	74	94	211	273	308	312	318	327
Net trade	Mil. bbl.	-676	-1015	-638	-509	-470	-502	-398	-274	-402	-380
Coal:											
Imports	1,000 sh. tons.	36	127	940	1,194	1,952	2,699	7,584	7,201	7,126	7,487
Exports	1,000 sh. tons.	71,733	53,587	66,309	91,742	92,680	105,804	71,359	88,547	90,473	83,545
Net trade	1,000 sh. tons.	71,697	53,460	65,369	90,548	90,728	103,105	63,775	81,346	83,347	76,058

[1] Beginning 1980, includes strategic petroleum reserve imports.

Source: U.S. Energy Information Administration, *Annual Energy Review.*

No. 967. Crude Oil Imports Into United States, by Country of Origin: 1970 to 1998

[**In millions of barrels, (483 represents 483,000,000).** Barrels contain 42 gallons]

Country of origin	1970	1973	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998
Total imports	**483**	**1,184**	**1,864**	**2,133**	**2,151**	**2,110**	**2,220**	**2,477**	**2,578**	**2,643**	**2,748**	**2,918**	**3,121**
Total OPEC [1]	222	765	984	1,232	1,283	1,233	1,243	1,317	1,307	1,303	1,280	1,349	1,492
Persian Gulf [2], total	62	293	495	633	657	636	597	598	589	539	544	591	732
Iran	12	79	(Z)	-	-	12	-	-	-	-	(NA)	(NA)	(NA)
Iraq	-	1	125	161	188	-	-	-	-	-	-	32	122
Kuwait [3]	12	15	29	57	29	2	14	126	112	78	86	92	102
Qatar	-	3	-	1	1	-	-	-	-	-	-	-	1
Saudi Arabia [3]	15	169	333	407	436	622	585	468	473	460	457	467	506
United Arab Emirates	23	26	8	8	3	1	-	4	4	1	1	-	1
Other OPEC [2], total	160	472	489	599	625	596	646	720	717	764	735	755	761
Algeria	2	44	21	22	23	16	9	9	8	10	3	2	(NA)
Ecuador [4]	-	17	12	29	14	19	23	[44]	[4]35	41	(NA)		
Gabon	-	-	5	18	23	31	45	55	71	84	67	80	(NA)
Indonesia	26	73	68	58	36	37	26	24	34	23	16	18	17
Libya	17	49	-	-	-	-	-	-	-	-	(NA)	(NA)	(NA)
Nigeria	17	164	222	292	286	249	243	264	228	226	218	244	248
Venezuela	98	126	160	181	243	244	302	369	377	421	477	493	495
Non-OPEC [5], total	245	419	880	900	869	878	977	1,160	1,271	1,340	1,410	1,569	1,458
Canada	245	365	249	230	235	271	292	329	359	380	394	412	462
Malaysia	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	4	2	2	2	3	6
Mexico	-	(Z)	246	261	251	277	288	315	343	375	442	489	476
Norway	-	-	23	46	35	27	43	50	69	95	107	104	79
Trinidad and Tobago	(Z)	22	26	27	28	26	26	20	23	23	21	20	19
United Kingdom	-	-	93	58	57	39	73	114	145	125	79	61	57

- Represents zero. NA Not available. Z Represents less than half the unit of measure. [1] OPEC (Organization of Petroleum Exporting Countries) includes the Persian Gulf nations shown below, except Bahrain, which is not a member of OPEC, and also includes nations shown under "Other OPEC". [2] Excludes petroleum imported into the United States indirectly from members of the OPEC countries. [3] Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in Saudi Arabia. [4] Ecuador withdrew from OPEC on Dec. 31, 1992; therefore, it is included under OPEC for the period 1973 to 1992. [5] Includes petroleum imported into the United States indirectly from member of OPEC, primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

Source: 1970, U.S. Bureau of Mines, *Minerals Yearbooks, Vol. I;* thereafter, U.S. Energy Information Administration, *Petroleum Supply Annual,* Vol. I.

No. 968. Crude Oil and Refined Products—Summary: 1973 to 1998

[Barrels of 42 gallons. Data are averages]

Year	Crude oil (1,000 bbl. per day)					Refined oil products (1,000 bbl. per day)			Total oil imports [2] (1,000 bbl. per day)	Crude oil stocks [3] (mil. bbl.)	
	Input to refineries	Domestic production	Imports		Exports	Domestic demand	Imports	Exports		Total	Strategic reserve
			Total [1]	Strategic reserve							
1973	12,431	9,208	3,244	(X)	2	17,308	3,012	229	6,256	242	(X)
1974	12,133	8,774	3,477	(X)	3	16,653	2,635	218	6,112	265	(X)
1975	12,442	8,375	4,105	(X)	6	16,322	1,951	204	6,056	271	(X)
1976	13,416	8,132	5,287	(X)	8	17,461	2,026	215	7,313	285	(X)
1977	14,602	8,245	6,615	21	50	18,431	2,193	193	8,807	348	7
1978	14,739	8,707	6,356	161	158	18,847	2,008	204	8,363	376	67
1979	14,648	8,552	6,519	67	235	18,513	1,937	236	8,456	430	91
1980	13,481	8,597	5,263	44	287	17,056	1,646	258	6,909	466	108
1981	12,470	8,572	4,396	256	228	16,058	1,599	367	5,996	594	230
1982	11,774	8,649	3,488	165	236	15,296	1,625	579	5,113	644	294
1983	11,685	8,688	3,329	234	164	15,231	1,722	575	5,051	723	379
1984	12,044	8,879	3,426	197	181	15,726	2,011	541	5,437	796	451
1985	12,002	8,971	3,201	118	204	15,726	1,866	577	5,067	814	493
1986	12,716	8,680	4,178	48	154	16,281	2,045	631	6,224	843	512
1987	12,854	8,349	4,674	73	151	16,665	2,004	613	6,678	890	541
1988	13,246	8,140	5,107	51	155	17,283	2,295	661	7,402	890	560
1989	13,401	7,613	5,843	56	142	17,325	2,217	717	8,061	921	580
1990	13,409	7,355	5,894	27	109	16,988	2,123	748	8,018	908	586
1991	13,301	7,417	5,782	-	116	16,714	1,844	885	7,627	893	569
1992	13,411	7,171	6,083	10	89	17,033	1,805	861	7,888	893	575
1993	13,613	6,847	6,787	15	98	17,237	1,833	904	8,620	922	587
1994	13,866	6,662	7,063	12	99	17,718	1,933	843	8,996	929	592
1995	13,973	6,560	7,230	-	95	17,725	1,605	855	8,835	895	592
1996	14,195	6,465	7,508	-	110	18,309	1,971	871	9,478	850	566
1997	14,662	6,452	8,225	-	108	18,620	1,936	896	10,162	868	563
1998	14,837	6,243	8,550	-	110	18,684	1,832	821	10,382	894	571

- Represents zero. X Not applicable. [1] Includes Strategic Petroleum Reserve. [2] Crude oil (including Strategic Petroleum Reserve imports) plus refined products. [3] End of year.

Source: U.S. Energy Information Administration, *Monthly Energy Review.*

No. 969. Petroleum and Coal Products Corporations—Sales, Net Profit, and Profit Per Dollar of Sales: 1980 to 1998

[Represents SIC group 29. Profit rates are averages of quarterly figures at annual rates. Beginning 1988, excludes estimates for corporations with less than $250,000 in assets]

Item	Unit	1980	1985	1988	1989	1990	1992	1993	1994	1995	1996	1997	1998
Sales	Bil. dol.	333.2	320.9	265.3	318.5	282.2	278.0	266.1	268.2	283.1	323.5	320.0	261.9
Net profit:													
Before income taxes	Bil. dol.	39.1	17.7	23.5	23.1	12.1	2.0	14.9	17.2	16.5	32.6	36.8	11.6
After income taxes	Bil. dol.	25.5	12.7	19.4	17.8	10.8	3.1	13.0	14.9	13.9	26.6	29.4	10.5
Depreciation[1]	Bil. dol.	11.6	22.1	18.5	18.7	18.0	18.3	17.4	17.1	16.7	15.9	15.6	15.1
Profits per dollar of sales:													
Before income taxes	Cents	11.7	5.5	9.0	7.3	4.3	0.4	5.6	6.3	5.8	10.1	11.5	4.2
After income taxes	Cents	7.7	4.0	7.4	5.6	3.8	0.9	4.9	5.5	4.9	8.2	9.2	3.9
Profits on stockholders' equity:													
Before income taxes	Percent	30.7	11.7	17.7	16.4	8.6	1.6	11.8	13.2	12.6	23.2	23.5	7.1
After income taxes	Percent	20.0	8.5	14.5	12.7	7.6	2.5	10.2	11.4	10.6	18.9	18.9	6.5

[1] Includes depletion and accelerated amortization of emergency facilities.

Source: 1980, U.S. Federal Trade Commission; thereafter, U.S. Census Bureau, *Quarterly Financial Report for Manufacturing, Mining and Trade Corporations*.

No. 970. Major Petroleum Companies—Financial Data Summary: 1973 to 1997

[Data represent a composite of approximately 42 major worldwide petroleum companies aggregated on a consolidated, total company basis]

Item	1973	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997
FINANCIAL DATA (bil. dol.)											
Net income	11.8	11.6	32.9	19.4	26.8	12.1	18.8	20.3	24.3	39.7	39.4
Depreciation, depletion, etc	10.5	11.3	32.5	53.0	38.7	43.3	39.0	38.9	43.1	44.4	47.6
Cash flow[1]	22.3	22.8	65.4	72.4	65.5	55.4	57.0	59.2	67.4	84.1	87.0
Dividends paid	4.0	4.7	9.3	12.0	15.9	16.5	15.5	16.4	17.6	18.9	19.8
Net internal funds available for investment or debt repayment [2]	18.3	18.1	56.1	60.4	49.6	38.9	41.5	42.8	49.8	65.2	67.2
Capital and exploratory expenditures	16.3	26.9	62.1	58.3	59.6	53.6	51.8	51.5	57.3	71.1	81.5
Long-term capitalization	102.9	121.1	211.4	272.1	300.0	290.7	291.7	299.0	304.2	336.8	354.7
Long-term debt	22.5	28.9	49.8	93.5	90.4	94.0	91.6	89.1	85.4	80.8	86.1
Preferred stock	0.4	0.4	2.0	3.3	5.2	5.3	5.8	5.4	5.7	5.8	5.7
Common stock and retained earnings [3]	80.0	91.9	159.6	175.3	204.4	191.4	194.3	204.5	213.1	250.2	262.9
Excess of expenditures over cash income [4]	-2.0	8.9	6.0	-2.1	10.0	14.7	10.3	8.7	7.5	-5.9	-14.3
RATIOS [5] (percent)											
Long-term debt to long-term capitalization	22.0	23.8	23.6	34.4	30.1	32.3	31.4	29.8	28.1	24.2	24.3
Net income to total average capital	12.0	10.0	17.0	7.0	9.1	4.1	6.5	6.8	7.8	12.3	11.4
Net income to average common equity	15.6	13.1	22.5	10.8	13.5	6.1	9.8	10.1	11.3	17.1	15.4

[1] Generally represents internally-generated funds from operations. Sum of net income and noncash charges such as depreciation, depletion, and amortization. [2] Cash flow minus dividends paid. [3] Includes common stock, capital surplus, and earned surplus accounts after adjustments. [4] Capital and exploratory expenditures plus dividends paid minus cash flow. [5] Represents approximate year-to-year comparisons because of changes in the makeup of the group due to mergers and other corporate changes.

Source: Carl H. Pforzheimer & Co., New York, NY, *Comparative Oil Company Statements, 1995-1996,* and earlier reports.

No. 971. Electric Utility Sales and Average Prices, by End-Use Sector: 1970 to 1997

[Prior to 1980, covers Class A and B privately-owned electric utilities; thereafter, Class A utilities whose electric operating revenues were $100 million or more during the previous year]

Year	Sales (bil. kWh)				Average price of electricity sold (cents per kWh)							
					Current dollars				Constant (1992) dollars [2]			
	Total [1]	Residential	Commercial	Industrial	Total [1]	Residential	Commercial	Industrial	Total [1]	Residential	Commercial	Industrial
1970	1,392	466	307	571	1.7	2.2	2.1	1.0	5.6	7.2	6.9	3.3
1973	1,713	579	388	686	2.0	2.5	2.4	1.3	5.7	7.1	6.8	3.7
1975	1,747	588	403	688	2.9	3.5	3.5	2.1	6.9	8.3	8.3	5.0
1980	2,094	717	488	815	4.7	5.4	5.5	3.7	7.8	9.0	9.1	6.1
1981	2,147	722	514	826	5.5	6.2	6.3	4.3	8.3	9.4	9.5	6.5
1982	2,086	730	526	745	6.1	6.9	6.9	5.0	8.7	9.8	9.8	7.1
1983	2,151	751	544	776	6.3	7.2	7.0	5.0	8.6	9.8	9.6	6.8
1984	2,286	780	583	838	6.3	7.2	7.1	4.8	8.3	9.5	9.4	6.3
1985	2,324	794	606	837	6.4	7.4	7.3	5.0	8.2	9.4	9.3	6.4
1986	2,369	819	631	831	6.4	7.4	7.2	4.9	7.9	9.2	8.9	6.1
1987	2,457	850	660	858	6.4	7.4	7.1	4.8	7.7	8.9	8.5	5.8
1988	2,578	893	699	896	6.4	7.5	7.0	4.7	7.4	8.7	8.1	5.5
1989	2,647	906	726	926	6.5	7.6	7.2	4.7	7.2	8.5	8.0	5.2
1990	2,713	924	751	946	6.6	7.8	7.3	4.7	7.1	8.3	7.8	5.0
1991	2,762	955	766	947	6.7	8.0	7.5	4.8	6.9	8.2	7.7	4.9
1992	2,763	936	761	973	6.8	8.2	7.7	4.8	6.8	8.2	7.7	4.8
1993	2,861	995	795	977	6.9	8.3	7.7	4.8	6.7	8.1	7.5	4.7
1994	2,935	1,008	820	1,008	6.9	8.4	7.7	4.8	6.6	8.0	7.3	4.6
1995	3,013	1,043	863	1,013	6.9	8.4	7.7	4.7	6.4	7.8	7.1	4.4
1996	3,098	1,082	887	1,030	6.9	8.4	7.6	4.6	6.3	7.6	6.9	4.2
1997	3,120	1,072	913	1,036	6.9	8.5	7.6	4.6	6.1	7.6	6.8	4.1

[1] Includes other sectors not shown separately. [2] Based on the GDP implicit price deflator.

Source: U.S. Energy Information Administration, *Annual Energy Review.*

No. 972. Electric Utility Industry—Net Generation, Net Summer Capability, Generating Units, and Consumption of Fuels: 1980 to 1997

[Net generation for **calendar years**; other data as of **December 31**]

Item	Unit	1980	1990	1991	1992	1993	1994	1995	1996	1997
RETAIL SALES										
Retail sales, total	**Bil. kWh**	**2,094**	**2,713**	**2,762**	**2,763**	**2,861**	**2,935**	**3,013**	**3,098**	**3,115**
Net generation by electric utilities	Bil. kWh.	2,286	2,808	2,825	2,797	2,883	2,911	2,995	3,077	3,123
Purchases by utilities from nonutility purchasers	Bil. kWh.	1	116	139	166	189	209	222	229	(NA)
Imports	Bil. kWh.	25	23	31	37	39	52	47	47	(NA)
Exports	Bil. kWh.	4	21	9	9	11	8	9	9	(NA)
Losses and unaccounted for	Bil. kWh.	214	214	225	229	238	223	232	277	(NA)
NET GENERATION										
Total	**Bil. kWh**	**2,286**	**2,808**	**2,825**	**2,797**	**2,883**	**2,911**	**2,995**	**3,077**	**3,123**
Average annual change [1]	Percent	3.5	0.9	0.6	-1.0	3.0	1.0	2.8	2.7	1.5
Net generation, kWh per kW of net summer capability [2]	Rate	3,951	4,067	4,076	4,024	4,119	4,147	4,248	4,333	(NA)
Source of energy:										
Coal [3]	Percent	50.8	55.6	54.9	56.3	56.9	56.2	55.2	57.0	57.3
Nuclear	Percent	11.0	20.5	21.7	22.1	21.2	22.0	22.5	22.0	20.1
Oil	Percent	10.8	4.2	3.9	3.2	3.5	3.1	2.0	2.0	2.5
Gas	Percent	15.1	9.4	9.3	9.4	9.0	10.0	10.3	9.0	9.1
Hydro	Percent	12.1	10.1	9.9	8.7	9.3	8.5	9.9	11.0	10.9
Type of prime mover: [4]										
Hydro	Bil. kWh.	276	280	276	240	265	244	294	328	(NA)
Steam conventional [5]	Bil. kWh.	1,726	1,919	1,905	1,908	1,964	1,982	1,977	2,018	(NA)
Gas turbine and internal combustion	Bil. kWh.	28	14	22	21	25	36	44	49	(NA)
Steam nuclear	Bil. kWh.	251	577	613	619	610	640	673	675	(NA)
Other	Bil. kWh.	6	11	10	10	10	9	6	7	(NA)
NET SUMMER CAPABILITY										
Total [6]	**Mil. kW**	**579**	**691**	**693**	**695**	**700**	**702**	**705**	**710**	**(NA)**
Average annual change [1]	Percent	3.3	0.8	0.4	0.3	0.7	0.3	0.4	0.7	(NA)
Hydro	Mil. kW	82	91	92	93	96	96	97	94	(NA)
Steam conventional [7]	Mil. kW	397	448	447	447	447	446	446	442	(NA)
Gas turbine	Mil. kW	43	46	48	50	52	55	57	53	(NA)
Steam nuclear	Mil. kW	52	100	100	99	99	99	99	101	(NA)
Internal combustion	Mil. kW	5	5	5	5	5	5	5	5	(NA)
Geothermal and other	Mil. kW	1	2	2	2	2	2	2	2	(NA)
Combined cycle	Mil. kW	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	14	(NA)
NUMBER OF GENERATING UNITS										
Total [8]	**Number**	**11,084**	**10,296**	**10,260**	**10,221**	**10,471**	**10,427**	**10,396**	**10,422**	**(NA)**
Hydro	Number	3,275	3,479	3,476	3,497	3,388	3,362	3,337	3,480	3,346
Steam conventional	Number	2,862	2,354	2,284	2,307	2,221	2,170	2,157	2,153	(NA)
Gas turbine	Number	1,447	1,460	1,485	1,501	1,411	1,446	1,486	1,542	(NA)
Steam nuclear	Number	74	111	111	109	109	109	109	110	110
Internal combustion	Number	3,410	2,847	2,803	2,807	2,976	2,953	2,920	2,884	(NA)
CONSUMPTION OF FOSSIL FUELS										
Net generation by fuel [9]	**Quad. Btu**	**18.56**	**20.32**	**20.07**	**19.99**	**20.58**	**20.92**	**20.92**	**21.44**	**(NA)**
Coal	Quad. Btu	12.12	16.19	16.03	16.21	16.79	16.90	16.99	17.91	(NA)
Percent of total	Percent	65.30	79.68	79.87	81.09	81.58	80.78	81.21	83.5	(NA)
Petroleum	Quad. Btu	2.63	1.25	1.18	0.95	1.05	0.97	0.66	0.73	(NA)
Gas	Quad. Btu	3.81	2.88	2.86	2.83	2.74	3.05	3.28	2.81	(NA)
Fuel consumed:										
Coal	Mil. sh. tons	569	774	772	780	814	817	829	875	900
Petroleum	Mil. bbl.	421	200	189	152	169	155	102	113	125
Gas	Bil. cu. ft	3,682	2,787	2,789	2,766	2,682	2,987	3,197	2,732	2,968

NA Not available. [1] Change from immediate prior year except for 1980, change from 1975. For explanation of average annual percent change, see Guide to Tabular Presentation. [2] Net summer capability is the steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary power as demonstrated by test at the time of summer peak demand. [3] Includes small percentage (.5 percent) from wood and waste, geothermal, and petroleum coke. [4] A prime mover is the engine, turbine, water wheel, or similar machine which drives an electric generator. [5] Fossil fuels only. [6] Includes wind, solar thermal, and photovoltaic, not shown separately. [7] Includes fossil steam, wood, and waste. [8] Each prime mover type in combination plants counted separately. Includes geothermal, wind, and solar, not shown separately. [9] Includes small amounts of wood, waste, wind, geothermal, solar thermal, and photovoltaic.

Source: U.S. Energy Information Administration, 1980, *Power Production, Fuel Consumption, and Installed Capacity Data—Annual,* and unpublished data; thereafter, *Electric Power Annual, Annual Energy Review,* and unpublished data.

No. 973. Electric Utility Industry—Capability, Peak Load, and Capacity Margin: 1980 to 1997

[Excludes Alaska and Hawaii. Capability represents the maximum kilowatt output with all power sources available and with hydraulic equipment under actual water conditions, allowing for maintenance, emergency outages, and system operating requirements. Capacity margin is the difference between capability and peak load]

Year	Capability at the time of—				Noncoincident peak load		Capacity margin			
	Summer peak load (1,000 kW)		Winter peak load (1,000 kW)				Summer		Winter	
	Amount	Change from prior year	Amount	Change from prior year	Summer	Winter	Amount (1,000 kW)	Percent of capability	Amount (1,000 kW)	Percent of capability
1980	558,237	13,731	572,195	17,670	427,058	384,567	131,179	23.5	187,628	32.8
1981	572,219	13,982	586,569	14,374	429,349	397,800	142,870	25.0	188,769	32.2
1982	586,142	13,923	598,066	11,497	415,618	373,985	170,524	29.1	224,081	37.5
1983	596,449	10,307	612,453	14,387	447,526	410,779	148,923	25.0	201,674	32.9
1984	604,240	7,791	622,125	9,672	451,150	436,374	153,090	25.3	185,751	29.9
1985	621,597	17,357	636,475	14,350	460,503	423,660	161,094	25.9	212,815	33.4
1986	633,291	11,694	646,721	10,246	476,320	422,857	156,971	24.8	223,864	34.6
1987	648,118	14,827	662,977	16,256	496,185	448,277	151,933	23.4	214,700	32.4
1988	661,580	13,462	676,940	13,963	529,460	466,533	132,120	20.0	210,407	31.1
1989	673,316	11,736	685,249	8,309	523,432	496,378	149,884	22.3	188,871	27.6
1990	685,091	11,775	696,757	11,508	545,537	484,014	139,554	20.4	212,743	30.5
1991	690,915	5,824	703,212	6,455	551,320	485,435	139,595	20.2	217,777	31.0
1992	695,436	4,521	707,752	4,540	548,707	492,983	146,729	21.1	214,769	30.3
1993	694,250	1,186	711,957	4,205	575,356	521,733	118,894	17.1	190,224	26.7
1994	702,985	8,735	715,090	3,133	585,320	518,253	117,665	16.7	196,837	27.5
1995	714,222	11,237	727,679	12,589	620,249	544,684	93,973	13.2	182,995	25.1
1996	723,571	9,349	740,526	12,847	615,529	545,061	108,042	14.9	195,465	26.4
1997	729,079	5,508	743,774	3,248	631,355	560,228	97,724	13.4	183,546	24.7

Source: Edison Electric Institute, Washington, DC, *Statistical Yearbook of the Electric Utility Industry,* annual.

No. 974. Electric Energy Sales, by Class of Service, and by State: 1998

[**In billions of kilowatt-hours (3,139.8 represents 3,139,800,000,000**]

State	Total[1]	Residential	Commercial	Industrial	State	Total[1]	Residential	Commercial	Industrial
Total [2]	3,139.8	1,075.7	928.5	1,032.7					
					Missouri	65.6	26.5	22.8	15.3
Alabama	74.5	24.9	16.4	32.6	Montana	11.9	3.8	3.3	4.5
Alaska	4.8	1.7	2.2	0.8	Nebraska	22.6	8.0	6.5	6.6
Arizona	54.5	20.7	17.8	13.3	Nevada	24.2	7.8	5.5	10.0
Arkansas	36.9	13.0	7.6	15.6	New Hampshire	9.1	3.4	3.3	2.3
California	227.9	73.1	83.6	62.0	New Jersey	65.9	22.3	29.8	13.4
Colorado	38.1	12.3	14.6	10.3	New Mexico	17.5	4.5	5.4	6.2
Connecticut	28.4	10.9	11.3	5.9	New York	131.9	40.1	54.2	25.3
Delaware	10.1	3.3	3.1	3.7	North Carolina	109.1	40.6	31.4	35.1
Dist. of Columbia	10.1	1.6	7.9	0.3	North Dakota	8.3	3.4	2.3	2.1
Florida	175.0	87.8	63.3	18.3	Ohio	158.5	43.6	36.4	73.9
Georgia	102.3	36.8	30.2	34.0	Oklahoma	44.5	17.4	11.8	12.8
Hawaii	9.4	2.7	2.8	3.9	Oregon	47.6	17.2	14.0	15.9
Idaho	21.3	6.6	6.0	8.3	Pennsylvania	127.9	42.7	35.9	48.0
Illinois	126.5	37.2	38.1	42.4	Rhode Island	6.7	2.5	2.7	1.4
Indiana	89.1	26.5	18.5	43.5	South Carolina	68.5	21.6	14.8	31.3
Iowa	36.3	11.7	7.6	15.5	South Dakota	7.8	3.4	2.2	1.8
Kansas	32.3	10.9	11.4	9.4	Tennessee	87.0	33.4	24.8	27.8
Kentucky	76.8	21.0	12.2	40.6	Texas	291.1	100.8	73.0	104.3
Louisiana	71.5	24.8	15.3	28.7	Utah	20.4	5.7	6.5	7.4
Maine	12.0	3.7	3.3	5.0	Vermont	5.3	2.0	1.7	1.6
Maryland	56.3	21.9	23.4	10.1	Virginia	87.4	33.9	24.9	19.2
Massachusetts	47.7	16.3	20.8	9.9	Washington	88.3	31.8	21.6	31.4
Michigan	97.4	28.7	32.4	35.4	West Virginia	26.2	9.0	5.9	11.2
Minnesota	55.7	17.1	10.1	27.7	Wisconsin	60.1	18.5	15.7	25.1
Mississippi	40.1	14.8	10.0	14.6	Wyoming	11.8	2.0	2.4	7.2

[1] Includes other service not shown separately. [2] Preliminary.

Source: U.S. Energy Information Administration, *Electric Power Annual.*

No. 975. Electric Energy—Net Generation and Net Summer Capability, by State: 1990 to 1997

[Capacity as of **Dec. 31. (2,808.2 represents 2,808,200,000,000).** Covers utilities for public use]

State	Net generation (bil. kWh)				Net summer capability (mil. kW)		State	Net generation (bil. kWh)				Net summer capability (mil. kW)	
			1997							1997			
	1990	1995	Total	Percent from coal	1995	1997		1990	1995	Total	Percent from coal	1995	1997
U.S.	**2,808.2**	**2,994.5**	**3,122.5**	**57.3**	**706.1**	**712.0**	MO	59.0	65.4	71.1	84.3	15.7	16.3
AL	76.2	99.6	113.7	63.0	20.5	20.7	MT	25.7	25.4	27.8	51.8	4.9	4.9
AK	4.5	4.8	5.1	4.6	1.7	1.7	NE	21.6	25.3	28.4	60.6	5.5	5.7
AZ	62.3	69.0	78.1	43.8	15.2	15.1	NV	19.3	20.0	22.9	66.7	5.6	5.6
AR	37.1	39.5	42.8	53.2	9.6	9.6	NH	10.8	13.9	14.3	28.5	2.5	2.5
CA	114.5	121.9	112.2	0.0	43.3	44.1	NJ	36.5	27.1	23.8	28.7	13.8	13.6
CO	31.3	32.7	34.4	93.1	6.6	6.8	NM	28.5	29.4	30.6	88.6	5.1	5.1
CT	32.2	26.9	13.2	19.3	6.7	6.3	NY	128.7	101.2	108.1	20.1	32.1	30.2
DE	7.1	8.3	6.6	59.7	2.2	2.2	NC	79.8	96.1	107.4	65.4	20.6	20.9
DC	0.4	0.2	0.7	0.0	0.8	0.8	ND	26.8	28.8	29.7	88.5	4.5	4.2
FL	123.6	147.2	148.0	44.6	35.9	37.1	OH	126.5	137.9	141.2	88.4	27.4	27.3
GA	97.6	102.0	101.8	65.0	22.3	22.8	OK	45.1	48.0	48.4	68.3	12.9	13.1
HI	8.0	6.2	6.2	0.0	1.6	1.6	OR	49.2	44.0	49.1	3.1	10.4	10.5
ID	8.6	10.1	13.5	0.0	2.6	2.6	PA	165.7	168.9	177.2	59.5	33.7	33.9
IL	127.0	145.2	131.1	58.0	33.1	33.5	RI	0.6	0.7	3.6	0.0	0.4	0.4
IN	97.7	105.2	110.5	98.6	20.7	20.7	SC	69.3	78.4	78.4	39.6	16.7	17.4
IA	29.0	33.5	34.1	84.3	8.2	8.2	SD	6.4	8.8	12.5	26.6	3.0	3.0
KS	33.9	38.2	34.1	80.0	9.7	9.7	TN	73.9	82.3	93.3	63.1	16.1	17.3
KY	73.8	86.2	91.6	96.0	15.4	15.7	TX	234.0	261.7	277.2	49.0	64.4	64.8
LA	58.2	65.6	61.1	34.3	17.0	17.2	VT	5.0	4.8	5.3	0.0	1.1	1.1
ME	9.1	2.7	3.2	0.0	2.4	2.4	VA	47.2	52.7	59.0	50.3	14.3	15.0
MD	31.5	44.7	44.6	61.5	11.0	11.0	WA	100.5	95.7	117.5	5.9	24.3	24.3
MA	36.5	27.0	33.9	36.8	9.3	9.4	WV	77.4	77.3	88.3	99.4	14.5	14.4
MI	89.1	92.5	89.6	73.2	22.0	22.0	WI	45.6	51.0	48.6	84.1	11.5	11.9
MN	41.6	42.5	40.3	67.2	8.9	9.2	WY	39.4	39.7	40.8	96.4	6.0	6.0
MS	22.9	26.4	31.2	40.0	7.2	7.2							

Source: U.S. Energy Information Administration, 1980, *Power Production, Fuel Consumption, and Installed Capacity Data,* annual; thereafter, *Electric Power Annual, Electric Power Monthly,* December issues, and *Inventory of Power Plants in the United States,* annual.

No. 976. Nuclear Power Plants—Number of Units, Net Generation, and Net Summer Capability, by State: 1997

State	Number of units	Net generation		Net summer capability		State	Number of units	Net generation		Net summer capability	
		Total (mil. kWh)	Percent of total[1]	Total (mil. kW)	Percent of total[1]			Total (mil. kWh)	Percent of total[1]	Total (mil. kW)	Percent of total[1]
U.S.	**110**	**628,644**	**20.1**	**100.76**	**14.2**	MN	3	10,819	26.8	1.57	17.1
						MS	1	10,813	34.6	1.18	16.4
AL	5	29,573	26.0	4.84	23.4	MO	1	8,955	12.6	1.14	7.0
AZ	3	29,314	37.6	3.75	24.8	NE	2	9,269	32.7	1.25	21.9
AR	2	14,208	33.2	1.69	17.6	NH	1	7,979	55.8	1.16	46.3
CA	5	30,512	27.2	4.75	10.8	NJ	4	13,908	58.5	3.86	28.3
CT	3	-125	-0.9	2.63	41.6	NY	6	29,570	27.4	4.85	16.0
FL	5	22,968	15.5	3.88	10.4	NC	5	32,453	30.2	4.64	22.2
GA	4	30,414	29.9	3.95	17.3	OH	2	15,331	10.9	2.04	7.5
IL	13	51,069	38.9	12.61	37.6	PA	9	67,655	38.2	8.96	26.4
IA	1	4,149	12.2	0.52	6.4	SC	7	44,916	57.3	6.42	36.9
KS	1	8,430	24.7	1.16	12.0	TN	3	24,648	26.4	3.35	19.4
LA	2	13,511	22.1	2.01	11.7	TX	4	37,358	13.5	4.93	7.6
ME	1	-	-	0.87	36.4	VT	1	4,267	80.2	0.50	45.2
MD	2	13,213	29.7	1.68	15.3	VA	4	27,084	45.9	3.39	22.6
MA	1	4,310	12.7	0.67	7.1	WA	1	6,244	5.3	1.11	4.6
MI	5	21,914	24.5	3.96	18.0	WI	3	3,916	8.1	1.45	12.2

- Represents zero. [1] For total capability and generation, see Table 975.

Source: U.S. Energy Information Administration, *Electric Power Annual* and *Electric Power Monthly,* December issues.

No. 977. Nuclear Power Plants—Number, Capacity, and Generation: 1980 to 1997

Item	1980	1985	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Operable generating units [1]	71	96	109	111	112	111	109	110	109	109	109	107
Net summer capability [1 2] (mil. kW)	51.8	79.4	94.7	98.2	99.6	99.6	99.0	99.0	99.1	99.5	100.8	100.8
Net generation (bil. kWh)	251.1	383.7	527.0	529.4	576.9	612.6	618.8	610.3	640.4	673.4	674.7	629.4
Percent of total electric utility generation	11.0	15.5	19.5	19.0	20.5	21.7	22.1	21.2	22.0	22.5	21.9	20.1
Capacity factor [3]	56.3	58.0	63.5	62.2	66.0	70.2	70.9	70.5	73.8	77.4	76.3	70.8

[1] As of year-end. [2] Net summer capability is the peak steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary and other power plant, as demonstrated by test at the time of summer peak demand. [3] Weighted average of monthly capacity factors. Monthly factors are derived by dividing actual monthly generation by the maximum possible generation for the month (hours in month times net maximum dependable capacity).

Source: U.S. Energy Information Administration, *Annual Energy Review* and *Monthly Energy Review* March 1996.

No. 978. Uranium Supply and Discharged Commercial Reactor Fuel: 1980 to 1997

[Years ending **Dec. 31,** except as noted. For additional data on uranium, see Section 24, Natural Resources on mining]

Item	Unit	1980	1985	1990	1972	1993	1994	1995	1996	1997
URANIUM CONCENTRATE										
Production	Mil. lb.	43.70	11.31	8.89	5.65	3.06	3.35	6.04	6.32	5.64
Exports	Mil. lb.	5.80	5.30	2.00	2.80	3.00	17.74	9.84	11.50	17.00
Imports	Mil. lb.	3.60	11.70	23.70	23.30	21.00	36.62	41.30	45.42	43.00
Utility purchases from domestic suppliers	Mil. lb.	(NA)	21.7	20.5	23.4	15.5	22.7	22.3	22.9	18.7
Loaded into U.S. Nuclear reactors [1]	Mil. lb.	(NA)	(NA)	(NA)	43.0	45.1	40.4	51.1	46.2	48.7
Inventories, total	Mil. lb.	(NA)	176.9	129.1	117.3	105.7	86.9	72.5	80.0	75.8
At domestic suppliers	Mil. lb.	(NA)	23.7	26.4	25.2	24.5	21.5	13.7	13.9	11.9
At electric utilities	Mil. lb.	(NA)	153.2	102.7	92.1	81.2	65.4	58.7	66.1	63.9
Average prices:										
Purchased imports	Dol. per lb	(NA)	20.08	12.55	11.34	10.53	8.95	10.20	13.15	11.81
Domestic purchases	Dol. per lb	(NA)	31.43	15.70	13.45	13.14	10.30	11.11	13.80	12.87
DISCHARGED COMMERCIAL REACTOR FUEL [2]										
Annual discharge	Metric tons	1,193	1,330	2,084	2,192	2,102	1,809	2,292	2,174	(NA)
Inventory, year-end [3]	Metric tons	6,434	12,481	21,029	24,937	27,039	28,848	31,140	(NA)	(NA)

NA Not available. [1] Does not include any fuel rods removed from reactors and later reloaded into the reactor. [2] Uranium content. Source: Nuclear Assurance Corporation, Atlanta, GA. [3] Reprocessed fuel not included as inventory.

Source: Except as noted, U.S. Energy Information Administration, *Annual Energy Review, Uranium Industry Annual* and unpublished data.

No. 979. Electric Utilities—Generation, Sales, Revenue, and Customers: 1980 to 1997

[Sales and revenue are to and from ultimate customers]

Class	Unit	1980	1985	1990	1992	1993	1994	1995	1996	1997
Generation [1]	Bil. kWh	2,286	2,470	2,808	2,797	2,883	2,911	2,995	3,077	3,123
Sales [2]	Bil. kWh	2,126	2,306	2,684	2,735	2,850	2,935	3,013	3,098	3,140
Residential or domestic	Bil. kWh	734	793	916	929	994	1,008	1,043	1,082	1,076
Percent of total	Percent	34.5	34.4	34.1	34.0	34.9	34.3	34.6	34.9	34.3
Commercial [3]	Bil. kWh	524	606	739	756	803	820	863	887	928
Industrial [4]	Bil. kWh	794	820	932	949	957	1,008	1,013	1,030	1,033
Revenue [2]	Bil. dol	95.5	149.2	176.5	187.3	197.9	202.7	207.7	212.5	215.1
Residential or domestic	Bil. dol	37.6	58.6	71.7	76.4	82.4	84.6	87.6	90.5	90.7
Percent of total	Percent	39.4	39.3	40.6	40.8	41.6	41.7	42.2	42.6	42.2
Commercial [3]	Bil. dol	27.4	44.1	54.2	58.0	62.0	63.4	66.4	67.8	70.5
Industrial [4]	Bil. dol	27.3	41.4	44.9	46.8	46.6	48.1	47.2	47.4	46.8
Ultimate customers, Dec. 31 [2]	Million	92.7	101.6	110.1	113.1	115.2	116.5	118.3	120.0	122.1
Residential or domestic	Million	82.2	89.8	97.0	99.6	101.3	102.3	103.9	105.3	107.0
Commercial [3]	Million	9.7	10.9	12.1	12.5	12.5	12.7	13.0	13.2	13.5
Industrial [4]	Million	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Avg. kWh used per customer	1,000	23.2	22.9	24.6	24.4	24.9	25.2	(NA)	25.8	25.7
Residential	1,000	9.0	8.9	9.5	9.4	9.9	9.9	(NA)	10.3	10.1
Commercial [3]	1,000	54.5	56.1	61.3	61.0	64.4	65.7	(NA)	78.0	68.7
Avg. annual bill per customer	Dollar	1,040	1,482	1,614	1,667	1,727	1,741	(NA)	1,769	1,761
Residential	Dollar	462	658	744	772	818	827	(NA)	859	849
Commercial [3]	Dollar	2,848	4,080	4,494	4,681	4,977	5,076	(NA)	5,140	5,209
Avg. revenue per kWh sold	Cents	4.49	6.47	6.57	6.85	6.94	6.91	6.89	6.86	6.85
Residential	Cents	5.12	7.39	7.83	8.22	8.29	8.38	8.40	8.36	8.43
Commercial [3]	Cents	5.22	7.27	7.33	7.67	7.73	7.73	7.69	7.64	7.59
Industrial [4]	Cents	3.44	5.04	4.81	4.93	4.87	4.77	4.66	4.60	4.53

NA Not available. [1] Source: U.S. Energy Information Administration, *Monthly Energy Review,* monthly. [2] Includes other types not shown separately. [3] Small light and power. [4] Large light and power.

Source: Except as noted, Edison Electric Institute, Washington, DC, *Statistical Yearbook of the Electric Utility Industry, annual.*

No. 980. Major Investor-Owned Electric Utilities—Balance Sheet and Income Account of Privately Owned Companies: 1993 to 1997

[**In thousands of dollars (193,637,843 represents $193,637,843,000).** As of **Dec. 31.** As of 1990, covers approximately 180 investor-owned electric utilities that during each of the last 3 years met any one or more of the following conditions — 1 mil. megawatthours of total sales; 100 megawatthours of sales for resale, 500 megawatthours of gross interchange out, and 500 megawatthours of wheeling for other]

Item	1993	1994	1995	1996	1997
COMPOSITE INCOME ACCOUNTS					
Operating revenue	193,637,843	196,281,500	199,966,979	207,459,078	214,322,732
Electric	176,354,365	179,307,260	183,655,263	188,900,781	195,202,204
Gas	16,686,912	16,221,506	15,580,382	17,869,394	18,598,414
Other utility	596,567	752,734	731,333	688,903	522,114
Operating expenses	161,908,147	164,207,153	165,321,023	173,920,492	181,758,787
Electric	146,118,013	148,662,734	150,598,710	156,937,816	164,465,582
Operation	91,328,230	93,107,998	91,880,940	97,206,642	103,353,465
Maintenance	12,446,914	12,021,790	11,767,040	12,049,844	12,329,419
Depreciation	18,098,736	18,679,022	19,885,482	21,193,742	23,012,231
Taxes other than income taxes	13,040,400	13,275,354	13,519,143	13,569,490	13,596,555
Regulatory debits (net)	429,481	706,108	1,142,138	683,185	641,813
Income taxes	8,296,900	9,625,569	11,479,763	11,194,656	11,840,864
Deferred income tax	2,993,143	1,831,593	1,473,977	1,616,998	-244,674
Investment tax credit (net)	-515,791	-584,701	-549,772	-576,741	-149,218
Gas	15,234,557	14,877,836	14,073,160	16,257,611	16,865,938
Income taxes	251,533	465,076	531,748	223,871	562,397
Other	14,983,024	14,412,760	13,541,412	16,033,740	8,844,711
Operating income	31,729,696	32,074,346	34,645,955	33,538,586	32,563,945
Electric	30,236,352	30,644,526	33,056,553	31,962,965	30,736,622
Gas	1,452,354	1,343,670	1,507,223	1,611,783	1,732,476
Other utility	40,990	86,150	82,180	-36,163	94,847
Total income before interest charges	33,076,094	33,883,899	36,457,369	35,152,873	35,051,433
Net interest charges	14,700,488	14,161,602	14,421,406	13,990,388	14,122,641
Interest expense	14,566,753	13,915,384	14,169,979	13,645,951	13,801,857
Less allow. for borrowed funds used during const'n	555,021	420,828	435,386	326,158	331,578
Other charges, net	688,756	667,046	686,814	670,597	237,721
Net income before extraordinary charges	18,375,606	19,722,298	22,035,963	21,162,485	20,928,793
Less extraordinary items after taxes	484,409	-165,288	-24,691	-65,696	2,537,855
Net income	17,891,198	19,887,586	22,060,655	21,228,180	18,390,938
Dividends declared - preferred stock	1,765,286	1,581,940	1,518,904	1,248,409	1,024,760
Earnings available for common stocks	16,125,912	18,305,646	20,541,751	19,979,771	17,366,178
Dividends declared - common stock	15,334,377	15,875,659	16,249,715	16,810,054	17,786,231
Additions total earnings	296,171	2,063,432	4,281,899	2,193,444	-755,318
COMPOSITE BALANCE SHEET					
Total assets and other debits	566,641,282	574,511,673	578,933,714	581,990,963	587,418,412
Utility plant, net	393,829,243	397,812,254	397,383,148	396,437,823	382,168,627
Electric utility plant, total	363,829,459	366,936,417	366,116,061	363,853,762	351,952,558
Electric utility plant	519,207,367	535,928,383	553,857,823	569,968,617	578,892,994
Construction work in progress	18,048,849	17,148,353	13,523,358	11,395,525	11,051,910
Less accumulated depreciation	173,426,756	186,140,318	201,265,120	217,510,379	237,992,346
Nuclear fuel, net	5,964,178	5,656,878	5,285,850	5,443,854	5,285,254
Other utility plant, net	24,035,606	25,218,959	25,981,238	27,140,206	28,423,520
Unaccounted for plant	(NA)	(NA)	(NA)	(NA)	-3,492,705
Other property and investments	20,063,695	23,479,360	27,987,677	33,119,898	42,463,011
Current and accrued assets	42,409,989	41,262,977	44,139,661	43,515,064	47,050,759
Deferred debits	110,338,355	111,957,082	109,423,227	108,918,179	111,606,444
CAPITALIZATION AND LIABILITIES					
Liabilities and other credits	566,641,282	574,511,673	578,933,714	581,990,963	587,418,412
Capitalization	360,455,273	364,724,736	365,774,716	365,782,779	370,755,230
Common stock	107,470,838	109,522,096	111,301,825	112,633,284	113,852,964
Retained earnings (adjusted)	52,826,059	54,960,728	59,195,307	61,692,140	61,598,944
Preferred stock	25,304,294	24,859,833	21,569,105	18,830,248	16,253,063
Long-term debt	174,854,082	175,382,079	173,708,479	172,627,107	179,050,259
Current liabilities and deferred credits	206,186,010	209,786,937	213,158,998	216,208,185	216,663,182
Other noncurrent liabilities	11,478,303	13,452,636	14,352,102	15,309,391	15,992,675
Current and accrued liabilities	48,878,976	48,035,058	49,929,403	49,341,620	51,112,314
Deferred credits	145,828,731	148,299,243	148,877,493	151,557,174	149,558,193
Accumulated deferred income taxes	104,964,188	107,054,667	108,615,175	110,537,249	107,426,447
Accumulated deferred investment tax credit	13,428,995	12,784,415	12,138,942	11,491,332	10,836,884
Other deferred credits (adjusted)	27,435,549	28,460,160	28,123,375	29,528,592	31,294,862
COMPOSITE FINANCIAL INDICATORS					
Activity:					
1. Electric fixed asset (net plant) turnover	0.48	0.49	0.50	0.52	0.55
2. Total asset turnover	0.34	0.34	0.35	0.36	0.36
Leverage:					
3. Current assets to current liabilities	0.87	0.86	0.88	0.88	0.92
4. Long term debt to capitalization	48.51	48.09	47.49	47.19	48.29
5. Preferred stock to capitalization	7.02	6.82	5.90	5.15	4.38
6. Common stock equity to capitalization	44.47	45.10	46.61	47.66	47.32
7. Total debts to total assets	32.48	32.35	31.89	31.57	32.23
8. Common stock equity to total assets	28.29	28.63	29.45	29.95	29.87
9. Interest coverage before taxes without AFUDC	2.78	3.10	3.37	3.36	3.39
Profitability:					
10. Profit margin	9.24	10.13	11.03	10.23	8.58
11. Return on average common stock equity	22.32	12.24	13.17	12.31	10.52
12. Return on investment	3.16	3.46	3.81	3.65	3.13

NA Not available.
Source: U.S. Energy Information Administration, *Electric Power Annual.*

No. 981. Nonutility Electric Power Producers—Summary, by Type of Fuel: 1989 to 1997

Type of fuel	1989	1990	1991	1992	1993	1994	1995	1996	1997
Installed capacity (megawatts)	38,851	45,271	49,998	56,814	60,778	68,461	70,254	73,189	74,021
Coal [1]	6,422	6,937	7,351	8,503	9,772	10,372	10,877	11,370	11,236
Petroleum [2]	1,129	1,038	1,514	1,730	2,043	2,262	2,116	2,251	2,994
Natural gas	14,820	17,430	20,694	21,542	23,463	26,925	27,906	30,166	30,476
Other gas [3]	(4)	(4)	(4)	(4)	(4)	1,130	1,217	327	273
Petroleum/natural gas (combined)	4,732	6,468	5,292	8,478	8,505	9,820	10,479	10,912	9,767
Hydroelectric	1,672	1,968	2,072	2,684	2,741	3,364	3,399	3,419	3,776
Geothermal	1,001	1,086	1,103	1,254	1,318	1,335	1,295	1,346	1,303
Solar	200	360	360	360	360	354	354	354	354
Wind	1,339	1,405	1,652	1,822	1,813	1,737	1,723	1,670	1,607
Wood [5]	5,515	6,049	6,708	6,805	7,046	7,416	6,885	7,263	7,181
Waste [6]	1,825	2,323	2,741	3,006	3,131	3,150	3,430	3,463	3,715
Gross generation (mil. kilowatt hours)	189,896	220,058	251,747	296,001	325,226	354,925	375,901	382,423	384,707
Coal [1]	31,511	32,131	40,587	47,363	53,367	59,035	60,234	61,375	58,923
Petroleum [2]	5,742	7,330	7,814	10,963	13,364	15,069	15,049	14,959	15,620
Natural gas	99,632	116,969	131,820	158,798	174,282	179,735	196,633	198,555	206,411
Other gases [3]	(4)	(4)	(4)	(4)	(4)	12,480	13,984	14,750	13,342
Hydroelectric	7,124	8,153	8,180	9,446	11,511	13,227	14,774	16,555	17,905
Geothermal	5,416	7,235	8,014	8,578	9,749	10,122	9,912	10,198	9,110
Solar	489	663	779	746	897	824	824	903	893
Wind	1,833	2,251	2,606	2,916	3,052	3,482	3,185	3,400	3,385
Wood [5]	27,835	30,812	33,785	36,255	37,421	38,595	37,283	37,525	35,218
Waste [6]	8,515	11,688	14,475	17,352	18,325	18,797	20,231	20,412	20,669

[1] Includes coal, anthracite, culm and coal waste. [2] Includes petroleum, petroleum coke, diesel, kerosene, and petroleum sludge and tar. [3] Includes butane, ethane, propane, and other gases. [4] Included in "Natural gas." [5] Includes wood, wood waste, peat, wood liquors, railroad ties, pitch and wood sludge. [6] Includes municipal solid waste, agricultural waste, straw, tires, landfill gases and other waste.

Source: Energy Information Administration, *Annual Nonutility Power Producer Report.*

No. 982. Water Power—Developed and Undeveloped Capacity, by Division: 1980 to 1997

[**In millions of kilowatts (64.4 represents 64,400,000.** As of **Dec. 31.** Excludes all capacity of reversible equipment at pumped storage projects. Also excludes capacity precluded from development due to wild and scenic river legislation. For composition of divisions, see map inside front cover]

Division	Developed installed capacity							Estimated undeveloped capacity						
	1980	1990	1993	1994	1995	1996	1997	1980	1990	1993	1994	1995	1996	1997
United States	**64.4**	**73.0**	**74.0**	**74.1**	**74.2**	**74.8**	**73.5**	**129.9**	**73.9**	**73.6**	**73.5**	**71.0**	**70.0**	**64.1**
New England	1.5	1.9	1.9	1.9	1.9	2.0	2.0	4.7	4.4	4.4	4.4	4.4	4.4	3.9
Middle Atlantic	4.3	4.9	4.9	4.9	4.9	5.0	5.6	5.1	5.1	4.9	4.9	4.9	4.8	3.6
East North Central	0.9	1.1	1.2	1.2	1.2	1.2	1.2	2.0	1.7	1.7	1.7	1.7	1.6	1.5
West North Central	2.8	3.1	3.1	3.1	3.1	3.0	3.0	3.4	3.1	3.1	3.1	3.1	3.0	2.8
South Atlantic	5.9	6.7	6.7	6.7	6.7	6.8	6.8	9.6	7.0	7.2	7.2	7.2	7.3	6.8
East South Central	5.6	5.9	5.9	5.9	5.9	5.9	5.9	3.3	2.4	2.4	2.4	2.3	2.0	2.0
West South Central	2.3	2.7	2.7	2.7	2.7	2.7	2.8	4.7	4.6	4.6	4.6	4.6	4.6	4.0
Mountain	7.4	9.2	9.5	9.5	9.5	10.0	10.0	34.2	19.4	19.1	19.1	18.8	19.1	18.0
Pacific	33.7	37.5	38.1	38.2	38.3	38.3	36.2	62.9	26.2	26.2	26.1	24.0	22.9	21.5

Source: U.S. Federal Energy Regulatory Commission (formerly U.S. Federal Power Commission), *Hydroelectric Power Resources of the United States, Developed and Undeveloped,* January 1, 1988; and unpublished data.

No. 983. Solar Collector Shipments, by Type, End Use, and Market Sector: 1984 to 1997

[**In thousands of square feet, except number of manufacturers.** Solar collector is a device for intercepting sunlight, converting the light to heat, and carrying the heat to where it will be either used or stored. 1985 data are not available]

Year	Number of manufacturers	Total shipments [1]	Collector type		End use			Market sector		
			Low temperature	Medium temperature, special, other	Pool heating	Hot water	Space heating	Residential	Commercial	Industrial
1984 [2]	225	17,191	4,479	11,939	4,427	8,930	2,370	13,980	2,091	289
1986 [2]	98	9,360	3,751	1,111	3,494	1,181	127	4,131	703	13
1987 [2]	59	7,269	3,157	957	3,111	964	23	3,775	305	11
1988 [2]	51	8,174	3,326	732	3,304	726	7	3,796	255	7
1989 [2]	44	11,482	4,283	1,989	4,688	1,374	205	5,804	424	42
1990	51	11,409	3,645	2,527	5,016	1,091	2	5,835	294	22
1991	48	6,574	5,585	989	5,535	989	24	6,322	225	13
1992	45	7,086	6,187	897	6,210	801	35	6,832	204	27
1993	41	6,968	6,025	931	6,040	880	15	6,694	215	31
1994	41	7,627	6,823	803	6,813	790	19	7,026	583	16
1995	36	7,666	6,813	840	6,763	755	132	6,966	604	82
1996	28	7,616	6,821	785	6,787	765	57	6,873	682	54
1997	29	8,138	7,524	606	7,528	595	10	7,360	768	7

[1] Includes high temperature collectors, end uses such process heating, and utility and other market sectors not shown separately. [2] Declines between 1984 and 1989 are primarily due to the expiration of the Federal energy tax credit and industry consolidation.

Source: U.S. Energy Information Administration, *Solar Collector Manufacturing Activity,* annual.

No. 984. Renewable Energy Consumption Estimates, by Type: 1990 to 1997

[**In quadrillion Btu**. Renewable energy is obtained from sources that are essentially inexhaustible unlike fossil fuels of which there is a finite supply]

Source and sector	1990	1993	1994	1995	1996	1997
SOURCE						
Total	**6.16**	**6.43**	**6.31**	**6.83**	**7.32**	**7.09**
Consumption for electricity	3.94	4.15	4.00	4.43	(NA)	(NA)
Electric utilities	3.23	3.23	3.02	3.16	3.89	3.88
Hydroelectric power	2.93	2.77	2.55	3.04	3.42	3.53
Geothermal energy	0.18	0.16	0.15	0.10	0.11	0.12
Biofuels [1]	0.02	0.02	0.02	0.02	(NA)	(NA)
Wind energy [2]	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Nonutility power generators	0.70	0.94	0.98	0.99	(NA)	(NA)
Hydroelectric power	0.08	0.12	0.14	0.15	0.17	0.19
Geothermal, solar, and wind energy	0.18	0.21	0.21	0.21	0.22	0.19
Biofuels [1]	0.44	0.57	0.59	0.59	(NA)	(NA)
Net imported electricity	0.10	0.27	0.31	0.28	0.33	0.22
Consumption for other uses [3]	2.22	2.25	2.30	(NA)	(NA)	(NA)
Biofuels [1]	2.63	2.78	2.85	(NA)	(NA)	(NA)
Solar and photovoltaic energy	0.07	0.07	0.07	(NA)	(NA)	(NA)
SECTOR						
Total	**6.16**	**6.43**	**6.31**	**6.76**	**7.32**	**7.09**
Residential and commercial	0.64	0.66	0.66	0.72	0.72	0.55
Industrial	2.21	2.45	2.53	2.49	2.63	2.56
Transportation	0.08	0.09	0.10	0.10	0.07	0.10
Electric utilities	3.23	3.23	3.02	3.45	3.89	3.88

NA Not available. Z Less than 0.005 quadrillion Btu. [1] Biofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels. [2] Also includes photovoltaic and solar thermal energy. [3] Included are nonutility thermal energy uses, such as space heating and industrial process heat production. Excluded are estimates for mechanical energy, such as shaft power from dams, wind machines, and solar-powered motors and activators.

Source: U.S. Energy Information Administration, *Annual Energy Review.*

No. 985. Privately Owned Gas Utility Industry—Balance Sheet and Income Account: 1980 to 1997

[**In millions of dollars 75,851 represent $75,851,000,000.** The gas utility industry consists of pipeline and distribution companies. Excludes operations of companies distributing gas in bottles or tanks]

Item	1980	1985	1990	1992	1993	1994	1995	1996	1997
COMPOSITE BALANCE SHEET									
Assets, total	**75,851**	**104,478**	**121,686**	**129,400**	**135,813**	**137,911**	**141,965**	**121,328**	**134,715**
Total utility plant	67,071	88,121	112,863	129,272	135,859	139,372	143,636	135,179	140,268
Depreciation and amortization	*26,162*	*36,377*	*49,483*	*53,005*	*60,152*	*61,140*	*62,723*	*58,815*	*62,554*
Utility plant (net)	40,909	51,744	63,380	76,267	75,707	78,232	80,912	76,364	77,714
Investment and fund accounts	15,530	23,871	23,872	21,883	23,342	22,658	26,489	13,207	22,812
Current and accrued assets	17,243	24,771	23,268	23,783	21,451	20,728	18,564	17,393	19,084
Deferred debits [1]	2,169	4,092	9,576	9,776	13,369	14,234	13,923	11,983	12,844
Liabilities, total	**75,851**	**104,478**	**121,686**	**129,400**	**135,813**	**137,911**	**141,965**	**121,328**	**134,775**
Capitalization, total	51,382	65,799	74,958	81,183	82,755	85,728	90,581	77,440	78,887
Capital stock	29,315	39,517	43,810	46,318	49,051	50,394	54,402	43,555	42,530
Long-term debts	22,067	26,282	31,148	34,865	33,693	35,296	35,548	33,644	35,971
Current and accrued liabilities	18,119	26,125	29,550	26,438	27,321	25,438	28,272	22,098	33,507
Deferred income taxes [2]	4,149	7,769	11,360	10,952	13,070	13,787	14,393	13,326	13,636
Other liabilities and credits	2,201	4,785	5,818	10,827	12,667	12,955	8,715	8,464	8,745
COMPOSITE INCOME ACCOUNTS									
Operating revenues, total	**85,918**	**103,945**	**66,027**	**66,405**	**69,966**	**63,446**	**58,390**	**63,600**	**62,617**
Operating expenses [3]	*81,789*	*98,320*	*60,137*	*60,042*	*62,977*	*56,789*	*50,760*	*56,695*	*59,375*
Operation and maintenance	74,508	88,572	51,627	48,054	50,468	43,879	37,966	43,742	46,070
Federal, state, and local taxes	4,847	6,590	4,957	6,031	6,185	6,613	6,182	6,362	7,182
Operating income	4,129	5,625	5,890	6,363	6,988	6,657	7,630	6,905	3,242
Utility operating income	4,471	6,030	6,077	6,572	7,177	6,851	7,848	7,013	3,337
Income before interest charges	6,929	7,636	8,081	7,223	8,754	8,200	9,484	8,030	4,193
Net income	4,194	3,785	4,410	3,750	5,589	5,011	5,139	4,797	48
Dividends	2,564	4,060	3,191	3,889	3,149	3,928	4,037	4,138	6,258

[1] Includes capital stock discount and expense and reacquired securities. [2] Includes reserves for deferred income taxes. [3] Includes expenses not shown separately.

Source: American Gas Association, Arlington, VA, *Gas Facts,* annual (copyright).

No. 986. Gas Utility Industry—Summary: 1980 to 1997

[Covers natural, manufactured, mixed, and liquid petroleum gas. Based on questionnaire mailed to all privately and municipally owned gas utilities in United States, except those with annual revenues less than $25,000]

Item	Unit	1980	1985	1990	1992	1993	1994	1995	1996	1997
End users [1]	**1,000**	**47,223**	**49,971**	**54,261**	**56,132**	**57,028**	**57,960**	**58,728**	**59,820**	**59,802**
Residential	1,000	43,489	45,929	49,802	51,525	52,358	53,243	53,955	54,968	54,998
Commercial	1,000	3,498	3,816	4,246	4,397	4,428	4,474	4,530	4,616	4,593
Industrial and other	1,000	187	179	166	165	181	181	181	183	173
Sales [2]	**Tril. Btu**	**15,413**	**12,616**	**9,842**	**9,906**	**10,021**	**9,480**	**9,094**	**9,532**	**8,913**
Residential	Tril. Btu	4,826	4,513	4,468	4,694	5,054	4,972	4,736	5,198	5,021
Percent of total	Percent	31.3	35.8	45.4	47.4	50.4	52.4	52.0	54.5	56.3
Commercial	Tril. Btu	2,453	2,338	2,192	2,209	2,397	2,351	2,204	2,395	2,244
Industrial	Tril. Btu	7,957	5,635	3,010	2,772	2,404	2,009	1,930	1,791	1,524
Other	Tril. Btu	177	130	171	231	167	148	224	148	124
Revenues [2]	**Mil. dol**	**48,303**	**63,293**	**45,153**	**46,178**	**49,847**	**49,864**	**46,381**	**51,115**	**51,517**
Residential	Mil. dol	17,432	26,864	25,000	26,702	29,787	30,563	28,741	32,022	33,068
Percent of total	Percent	36.1	42.4	55.4	57.8	59.8	61.3	61.9	62.6	64.2
Commercial	Mil. dol	8,183	12,722	10,604	10,865	12,076	12,254	11,410	12,726	12,666
Industrial	Mil. dol	22,215	23,086	8,996	7,913	7,351	6,475	5,652	5,821	5,284
Other	Mil. dol	473	621	553	698	632	572	579	546	498
Prices per mil. Btu [3]	**Dollars**	**3.13**	**5.02**	**4.59**	**4.66**	**4.94**	**5.23**	**5.10**	**5.37**	**5.78**
Residential	Dollars	3.61	5.95	5.60	5.69	5.89	6.14	6.06	6.17	6.59
Commercial	Dollars	3.34	5.44	4.84	4.92	5.04	5.21	5.18	5.31	5.64
Industrial	Dollars	2.79	4.10	2.99	2.85	3.02	3.17	3.00	3.32	3.53
Gas mains mileage	**1,000**	**1,052**	**1,119**	**1,207**	**1,254**	**1,251**	**1,267**	**1,262**	**1,269**	**1,258**
Field and gathering	1,000	84	94	90	86	73	72	62	58	46
Transmission	1,000	266	271	280	285	270	276	265	260	257
Distribution	1,000	702	754	837	883	908	919	935	952	955
Construction expenditures	**Mil. dol**	**5,350**	**5,671**	**7,899**	**11,068**	**9,140**	**9,282**	**10,829**	**7,722**	**7,189**
Transmission	Mil. dol	1,583	1,562	2,886	5,739	3,288	3,065	3,384	1,316	1,334
Distribution	Mil. dol	1,869	2,577	3,714	3,867	4,286	4,550	5,448	4,234	4,404
Production and storage	Mil. dol	1,150	790	309	349	253	230	366	651	347

[1] Annual average. [2] Excludes sales for resale. [3] For definition of Btu, see text, this section. [4] Includes general.

Source: American Gas Association, Arlington, VA, *Gas Facts,* annual (copyright).

No. 987. Gas Utility Industry—Customers, Sales, and Revenues, by State: 1997

[See headnote, Table 986. For definition of Btu, see text, this section]

State	Customers [1] (1,000)		Sales [3] (tril. Btu)		Revenues [3] (mil. dol.)		State	Customers [1] (1,000)		Sales [3] (tril. Btu)		Revenues [3] (mil. dol.)	
	Total [2]	Residential	Total [2]	Residential	Total [2]	Residential		Total [2]	Residential	Total [2]	Residential	Total [2]	Residential
U.S.	**59,802**	**54,998**	**8,913**	**5,021**	**511,517**	**33,068**	MS	442	396	78	27	370	166
							MO	1,408	1,274	199	129	1,199	822
							MT	238	210	36	22	172	107
AL	818	753	112	50	687	399	NE	502	442	84	47	428	263
AK	95	83	23	15	84	57	NV	454	426	45	26	244	158
AZ	683	641	58	26	355	209	NH	89	76	18	7	113	51
AR	611	542	91	43	487	283	NJ	2,389	2,172	476	226	2,800	1,720
CA	9,429	9,000	712	478	4,361	3,165							
							NM	480	441	60	37	303	212
CO	1,307	1,183	189	116	823	553	NY	4,379	4,049	634	392	5,011	3,495
CT	484	435	103	43	794	427	NC	835	728	150	54	967	466
DE	119	109	24	9	148	75	ND	113	99	26	12	110	56
DC	146	131	26	12	222	111	OH	3,224	2,976	515	372	3,077	2,645
FL	531	485	65	13	419	139							
							OK	946	856	130	73	696	438
GA	1,650	1,528	215	117	1,355	838	OR	516	455	75	34	364	212
HI	37	34	3	1	49	16	PA	2,537	2,340	410	265	2,919	2,060
ID	224	198	27	16	124	77	RI	226	204	33	18	272	170
IL	3,786	3,491	624	466	3,350	2,566	SC	484	430	97	25	542	211
IN	1,670	1,523	267	176	1,675	1,086							
							SD	148	130	25	13	127	76
IA	864	773	135	81	722	471	TN	913	812	164	63	919	419
KS	917	831	112	72	644	455	TX	3,849	3,519	565	244	2,728	1,479
KY	775	698	122	68	608	338	UT	610	569	92	61	408	295
LA	737	689	270	41	755	262	VT	32	27	8	3	42	18
ME	23	16	6	1	43	8							
							VA	889	805	137	70	992	598
MD	930	860	212	115	885	595	WA	754	676	134	63	605	341
MA	1,311	1,194	119	72	1,683	1,043	WV	371	339	66	37	378	247
MI	3,069	2,844	542	387	2,645	1,928	WI	1,398	1,271	267	134	1,430	824
MN	1,229	1,120	276	136	1,318	757	WY	135	120	24	13	92	55

[1] Averages for the year. [2] Includes other service, not shown separately. [3] Excludes sales for resale.

Source: American Gas Association, Arlington, VA, *Gas Facts,* annual (copyright).