Section 19

Energy

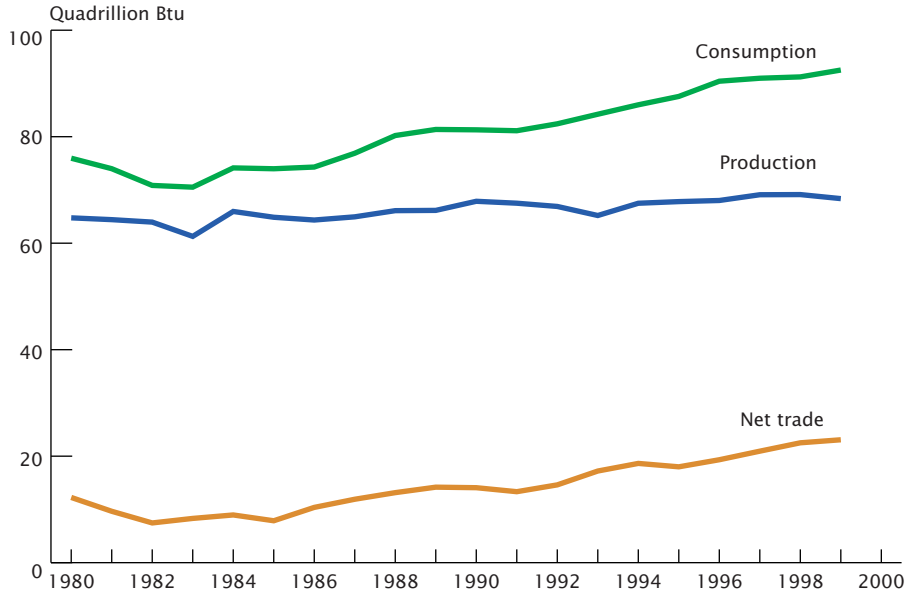
This section presents statistics on fuel resources, energy production and consumption, electric energy, hydroelectric power, nuclear power, solar energy, wood energy and the electric and gas utility industries. The principal sources are the U.S. Department of Energy's Energy Information Administration (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.

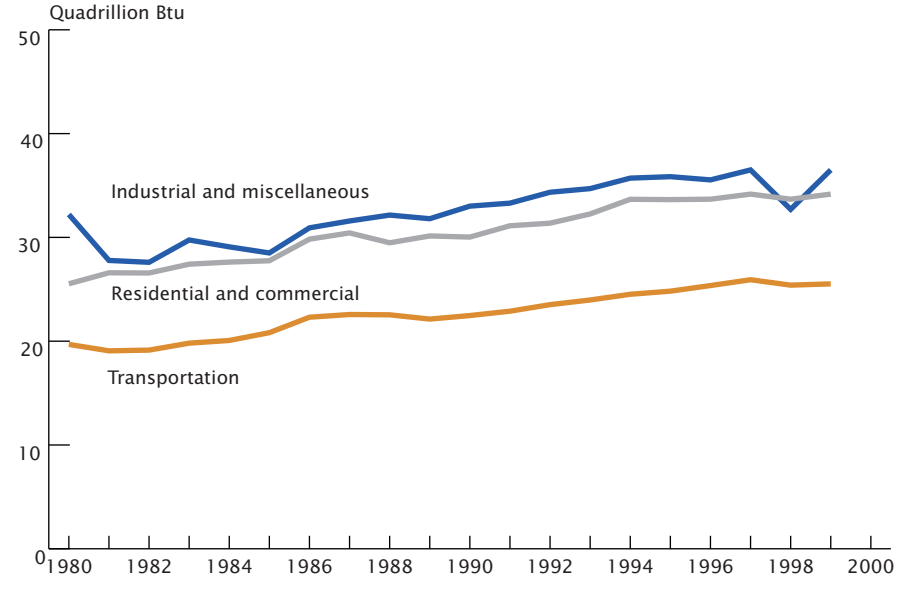
Btu conversion factors—Various energy sources are converted from original units to the thermal equivalent using British thermal units (Btu). A Btu is the amount of energy required to raise the temperature of 1 pound of water 1 degree Fahrenheit (F) at or near 39.2 degrees F. Factors are calculated annually 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.

Figure 19.1
Energy Production, Trade, and Consumption: 1980 to 1999



Source: Chart prepared by U.S. Census Bureau. For data, see Table 942.

Figure 19.2
Energy Consumption, by End-Use Sector: 1980 to 1999



Source: Chart prepared by U.S. Census Bureau. For data, see Table 945.

No. 942. Energy Supply and Disposition by Type of Fuel: 1970 to 1999

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

Type of fuel	1970	1973	1975	1980	1985	1990	1995	1996	1997	1998	1999
Production	**63.50**	**63.58**	**61.36**	**67.24**	**67.72**	**[1]70.85**	**71.29**	**72.58**	**72.53**	**72.55**	**72.52**
Crude oil [2]	20.40	19.49	17.73	18.25	18.99	15.57	13.89	13.72	13.66	13.24	12.54
Natural gas liquids	2.51	2.57	2.37	2.25	2.24	2.18	2.44	2.53	2.50	2.42	2.51
Natural gas	21.67	22.19	19.64	19.91	16.98	18.36	19.10	19.36	19.39	19.29	19.30
Coal	14.61	13.99	14.99	18.60	19.33	22.46	22.03	22.68	23.21	23.72	23.33
Nuclear electric power	0.24	0.91	1.90	2.74	4.15	6.16	7.18	7.17	6.68	7.16	7.73
Renewable energy:	4.07	4.43	4.72	5.49	6.03	6.16	6.68	7.15	7.14	6.78	7.18
Hydroelectric power	2.63	2.86	3.16	2.90	2.97	3.05	3.21	3.59	3.72	3.35	3.23
Geothermal	0.01	0.04	0.07	0.11	0.20	0.35	0.32	0.34	0.33	0.33	0.33
Biofuels (wood & waste) [3]	1.43	1.53	1.50	2.48	2.86	2.67	3.04	3.10	2.98	2.99	3.51
Net trade [4]	**-5.73**	**12.68**	**11.75**	**12.25**	**7.87**	**14.08**	**18.00**	**19.33**	**20.94**	**22.51**	**23.08**
Exports	2.66	2.05	2.36	3.72	4.23	4.87	4.54	4.66	4.57	4.34	3.82
Coal	1.94	1.43	1.76	2.42	2.44	2.77	2.32	2.37	2.19	2.05	1.53
Natural gas	0.07	0.08	0.07	0.05	0.06	0.09	0.16	0.16	0.16	0.16	0.16
Petroleum (crude oil)	0.55	0.49	0.44	1.16	1.66	1.82	1.99	2.06	2.10	1.97	1.96
Imports	8.39	14.73	14.11	15.97	12.10	18.95	22.54	23.99	25.52	26.86	26.92
Coal	(Z)	(Z)	0.02	0.03	0.05	0.07	0.24	0.20	0.19	0.22	0.23
Natural gas	0.85	1.06	0.98	1.01	0.95	1.55	2.90	3.00	3.06	3.22	3.64
Petroleum [5]	7.47	13.47	12.95	14.66	10.61	17.12	18.86	20.27	21.74	22.91	22.53
Consumption	**67.86**	**75.81**	**72.04**	**78.43**	**76.78**	**84.19**	**90.94**	**93.91**	**94.32**	**94.57**	**96.60**
Petroleum [6]	29.52	34.84	32.73	34.20	30.92	33.55	34.55	35.76	36.27	36.93	37.71
Natural gas [7]	21.80	22.51	19.95	20.39	17.83	19.30	22.16	22.56	22.53	21.92	22.10
Coal	12.27	12.97	12.66	15.42	17.48	19.10	20.02	20.94	21.44	21.59	21.70
Nuclear electric power	0.24	0.91	1.90	2.74	4.15	6.16	7.18	7.17	6.68	7.16	7.73
Renewable energy	2.67	3.06	3.29	3.23	3.61	[1]6.17	6.85	7.39	(NA)	(NA)	(NA)
Hydroelectric power [8]	2.65	3.01	3.22	3.12	3.40	[9]3.14	3.47	3.92	3.94	3.55	3.42
Geothermal	0.01	0.04	0.07	0.11	0.20	[1]0.36	0.34	0.35	0.33	0.34	0.33
Other [3]	(Z)	-	-	0.01	0.02	[1]0.02	0.02	0.02	0.02	0.02	(NA)

- 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] 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. [4] Exports minus imports. [5] Includes imports of crude oil for the Strategic Petroleum Reserve, which began in 1977. Includes imports of unfinished oils and natural gas plant liquids. [6] Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel. [7] Includes supplemental gaseous fuels. [8] Includes net imports of electricity. [9] 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.

Source: U.S. Energy Information Administration, *Annual Energy Review* through 1985; thereafter, *Monthly Energy Review*, March.

No. 943. Energy Supply and Disposition by Type of Fuel—Estimates, 1997 to 1999, and Projections, 2005 to 2020

[In quadrillion British thermal units (Btu). Projections are "reference" or mid-level forecasts. See report for methodology and assumptions used in generating projections]

Type of fuel	1997	1998	1999	Projections 2005	2010	2015	2020
Production, total	**73.30**	**73.46**	**73.05**	**74.85**	**77.61**	**80.35**	**82.18**
Crude oil and lease condensate	13.66	13.23	12.72	11.35	10.96	11.01	11.13
Natural gas plant liquids	2.57	2.49	2.50	2.57	2.90	3.21	3.36
Natural gas	19.43	19.40	18.88	20.25	23.09	25.73	27.13
Coal	23.28	23.89	23.48	25.79	26.18	26.63	27.36
Nuclear power	8.71	7.19	7.46	7.20	6.70	5.45	4.56
Imports, total	**25.34**	**26.85**	**27.49**	**34.36**	**37.50**	**40.16**	**42.67**
Crude oil [1]	17.88	18.60	19.02	21.49	24.91	24.97	25.22
Petroleum products [2]	3.89	3.99	4.01	5.37	6.80	8.88	10.87
Natural gas	3.06	3.37	3.68	4.52	4.91	5.31	5.61
Other imports [3]	0.54	0.59	0.78	0.99	0.88	0.89	0.97
Exports, total	**4.45**	**4.16**	**3.79**	**3.76**	**3.89**	**3.75**	**3.76**
Petroleum [4]	2.09	1.94	2.00	1.94	1.97	1.95	1.93
Natural gas	0.16	0.17	0.18	0.24	0.29	0.35	0.35
Coal	2.19	2.05	1.60	1.59	1.63	1.44	1.46
Consumption, total	**94.41**	**94.88**	**96.39**	**105.26**	**111.26**	**116.66**	**120.95**
Petroleum products [5]	36.43	37.21	37.94	41.21	43.98	46.65	48.05
Natural gas	22.60	21.99	22.05	24.57	27.69	30.68	32.38
Coal	21.34	21.50	21.89	24.72	25.12	25.84	26.60
Nuclear power	6.71	7.19	7.46	7.20	6.70	5.46	4.65
Renewable energy/other [6]	7.00	8.67	6.56	7.08	7.41	7.71	7.99

[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.*

No. 944. Selected Energy Indicators—Summary: 1970 to 1999

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

Item	1970	1973	1975	1980	1985	1990	1993	1994	1995	1996	1997	1998	1999
AVERAGE ANNUAL PERCENT CHANGE [1]													
Gross domestic product [2]	4.3	1.9	-0.2	-	0.8	1.7	2.6	4.0	2.6	3.5	4.2	4.2	4.1
Energy production, total [3]	4.6	-0.2	-0.8	0.9	1.4	2.0	-2.4	3.6	0.6	1.8	-0.1	-	1
Crude oil [4]	4.2	-0.9	-2.3	0.2	0.2	-3.4	-4.9	-2.7	-1.5	-1.2	-0.5	-3.1	-5.4
Natural gas	6.4	-	-3.8	13.7	-1.2	2.8	1.1	4.0	-1.3	1.4	0.2	-0.5	-
Coal	2.2	-0.2	3.4	1.2	-0.4	5.1	-6.6	8.8	-0.4	2.9	2.3	2.2	-1.7
Energy consumption, total [3]	4.6	1.4	-1.4	-0.7	-0.1	-0.5	2.1	2.2	1.9	3.2	0.4	0.3	2.1
Petroleum products	4.8	1.9	-1.1	-1.6	-0.1	-1.9	0.9	2.4	-0.3	3.4	1.4	1.8	2.1
Natural gas (dry)	6.4	-	-6.1	13.7	-1.2	2.8	1.1	4.0	-1.3	1.4	0.2	-0.5	-
Coal	4.8	1.9	-3.1	-1.6	-0.1	-1.9	0.9	2.4	-0.3	3.4	1.4	1.8	2.1
PER CAPITA [5] (mil. Btu)													
Energy production	304	294	278	290	289	284	265	272	271	274	271	268	266
Energy consumption	326	351	334	345	323	337	339	343	346	354	352	350	354
Energy consumption per dollar of GDP [2] (1,000 Btu)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

- Represents zero. [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 (1996) dollars. For definition of chained, see text, Section 14, Income. [3] Includes types of fuel or power, not shown separately. [4] Includes lease condensate. [5] Based on resident population estimated as of July 1.

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

No. 945. Energy Consumption by End-Use Sector: 1970 to 1999

[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	Percent of total: Industrial and miscellaneous	Percent of total: Transportation
1970	67.86	22.11	29.65	16.10	32.6	43.7	23.7
1973	75.81	24.50	32.69	18.61	32.3	43.1	24.5
1975	72.04	24.33	29.46	18.25	33.8	40.9	25.3
1976	76.07	25.51	31.46	19.10	33.5	41.4	25.1
1977	78.12	25.94	32.36	19.82	33.2	41.4	25.4
1978	80.12	26.72	32.79	20.61	33.3	40.9	25.7
1979	81.04	26.55	34.02	20.47	32.8	42.0	25.3
1980	78.43	25.53	32.21	19.69	32.6	41.1	25.1
1981	76.57	26.13	30.93	19.50	34.1	40.4	25.5
1982	73.44	26.59	27.78	19.07	36.2	37.8	26.0
1983	73.32	26.57	27.60	19.14	36.2	37.6	26.1
1984	76.97	27.42	29.75	19.81	35.6	38.7	25.7
1985	76.78	27.62	29.09	20.07	36.0	37.9	26.1
1986	77.06	27.75	28.50	20.82	36.0	37.0	27.0
1987	79.63	28.49	29.68	21.46	35.8	37.3	26.9
1988	83.07	29.83	30.92	22.31	35.9	37.2	26.9
1989	84.59	30.43	31.58	22.57	36.0	37.3	26.7
1990	84.19	29.48	32.15	22.54	35.0	38.2	26.8
1991	84.06	30.14	31.80	22.13	35.9	37.8	26.3
1992	85.51	30.03	33.01	22.47	35.1	38.6	26.3
1993	87.31	31.12	33.30	22.89	35.6	38.1	26.2
1994	89.23	31.37	34.35	23.52	35.2	38.5	26.4
1995	90.94	32.26	34.70	23.97	35.5	38.2	26.4
1996	93.91	33.67	35.71	24.52	35.9	38.0	26.1
1997	94.32	33.64	35.85	24.82	35.7	38.0	26.3
1998	94.57	33.68	35.54	25.36	35.6	37.6	26.8
1999	96.60	34.17	36.50	25.92	35.4	37.8	26.8

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

No. 946. Energy Consumption—End-Use Sector and Selected Source by State: 1997

[In trillions of Btu (94,063.6 represents 94,063,600,000,000), 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	**94,063.6**	**351.3**	**18,402.5**	**14,918.1**	**[3]35,797.4**	**24,945.6**	**36,382.5**	**22,691.1**	**20,986.4**	**3,880.4**	**6,678.1**
Alabama	1,977.5	457.7	333.7	219.1	983.5	441.2	546.6	335.5	858.8	121.2	314.2
Alaska	697.3	1,145.3	48.8	64.7	398.8	184.9	244.8	425.4	11.7	11.3	-
Arizona	1,152.4	253.2	262.4	250.6	240.1	399.3	432.1	134.0	369.4	127.9	311.4
Arkansas	1,030.2	408.2	190.0	118.9	446.2	275.1	316.7	267.0	246.8	36.3	150.9
California	7,727.5	239.9	1,338.1	1,249.5	2,322.5	2,817.4	3,281.2	1,982.0	49.2	447.5	324.1
Colorado	1,133.4	291.3	260.5	242.7	298.3	331.8	397.9	309.6	356.0	21.6	-
Connecticut	795.8	243.5	247.0	193.2	139.0	216.6	439.5	140.7	28.0	11.8	-1.3
Delaware	267.2	363.5	54.4	43.8	103.2	65.7	130.2	48.1	48.6	-	-
District of Columbia	176.6	334.0	35.7	109.2	3.5	28.2	34.5	34.8	1.0	-	-
Florida	3,614.7	246.2	991.0	778.5	565.1	1,280.1	1,691.4	509.0	697.3	10.6	244.0
Georgia	2,588.4	345.8	533.6	400.7	840.3	813.7	980.6	371.4	771.9	45.9	323.1
Hawaii	239.5	201.4	21.2	24.1	77.3	117.0	217.8	2.7	3.3	1.2	-
Idaho	497.7	411.1	92.4	81.8	205.7	117.9	163.4	69.0	6.4	151.0	-
Illinois	3,900.2	324.7	937.7	719.2	1,398.5	844.8	1,293.6	1,099.7	964.2	1.1	542.5
Indiana	2,683.6	457.0	486.6	300.0	1,278.1	618.9	878.3	563.3	1,427.3	5.8	-
Iowa	1,136.4	398.1	234.9	158.3	472.5	270.7	375.5	257.1	390.0	8.3	44.1
Kansas	1,033.1	394.9	194.9	173.1	390.4	274.7	371.7	334.5	310.8	0.1	89.6
Kentucky	1,809.6	463.1	318.6	215.3	841.2	434.6	642.4	239.3	985.2	34.9	-
Louisiana	4,093.0	940.6	327.1	230.2	2,758.4	777.4	1,592.1	1,855.0	225.4	15.3	143.5
Maine	553.4	444.4	100.0	57.9	283.5	112.0	261.7	6.3	4.8	68.7	-
Maryland	1,360.0	267.0	360.7	323.8	302.6	372.9	529.4	214.5	290.2	16.4	140.4
Massachusetts	1,534.1	250.9	419.4	382.7	301.7	430.3	746.0	388.6	122.9	14.0	45.8
Michigan	3,259.1	333.1	770.4	572.3	1,123.7	792.7	1,051.7	995.4	774.6	26.9	232.8
Minnesota	1,685.8	359.6	357.5	225.5	656.8	446.0	647.5	360.5	341.2	95.4	114.9
Mississippi	1,123.7	411.3	198.9	138.6	434.3	351.9	453.5	264.1	132.2	-	114.9
Missouri	1,748.9	323.4	447.6	337.9	375.6	587.8	729.9	286.4	666.7	15.2	95.1
Montana	377.5	429.6	70.8	54.7	148.5	103.6	175.4	61.7	160.7	138.3	-
Nebraska	617.1	372.6	140.2	121.8	170.5	184.6	239.4	131.9	193.3	17.2	98.5
Nevada	584.4	348.8	113.7	91.9	199.2	179.6	210.6	132.1	166.3	26.7	-
New Hampshire	303.9	259.0	82.7	55.9	77.0	88.3	162.1	21.1	44.5	24.2	84.8
New Jersey	2,585.4	321.0	547.0	523.4	669.5	845.5	1,253.0	642.8	75.0	[4] -0.9	147.7
New Mexico	647.1	375.6	91.0	105.6	215.8	234.7	215.7	274.4	288.4	2.7	-
New York	4,093.2	225.6	1,056.3	1,168.8	905.6	962.4	1,531.9	1,260.3	306.1	337.2	314.1
North Carolina	2,425.2	326.5	556.3	418.4	792.1	658.4	889.1	221.9	733.1	61.2	344.7
North Dakota	355.8	555.1	57.1	44.3	177.5	76.8	121.2	58.9	386.5	35.3	-
Ohio	4,144.3	369.6	892.2	651.9	1,673.0	927.3	1,299.2	939.2	1,409.7	5.2	162.9
Oklahoma	1,405.2	424.0	267.1	203.7	553.3	381.2	466.6	566.7	367.4	29.1	-
Oregon	1,132.9	349.3	230.2	185.0	406.0	311.7	368.0	179.5	16.4	486.3	-
Pennsylvania	3,900.7	324.6	898.5	592.4	1,463.7	946.1	1,350.0	717.9	1,462.1	16.9	718.7
Rhode Island	235.1	238.2	70.6	51.5	47.3	65.7	104.1	84.9	0.1	7.4	-
South Carolina	1,474.2	389.0	274.4	193.0	661.8	345.1	469.0	158.7	361.6	21.7	477.1
South Dakota	241.9	331.0	59.1	40.6	63.6	78.6	115.2	36.1	42.4	92.9	-
Tennessee	2,084.2	387.5	443.0	339.2	748.5	553.4	703.6	291.1	673.5	107.0	261.8
Texas	11,396.1	588.8	1,324.1	1,130.7	6,551.0	2,390.4	5,247.0	4,061.2	1,507.1	24.8	396.9
Utah	691.2	334.7	125.2	114.7	249.7	201.7	261.8	172.1	365.5	14.0	-
Vermont	167.1	283.9	45.4	28.6	41.7	51.4	88.7	8.2	0.1	32.1	45.3
Virginia	2,126.4	315.8	499.4	451.1	543.8	632.1	819.9	252.0	384.8	2.1	287.7
Washington	2,164.2	386.2	426.5	321.7	779.3	636.8	852.5	241.9	80.5	1,058.7	66.3
West Virginia	809.2	445.7	145.6	95.7	389.1	178.8	277.7	169.9	922.5	11.8	-
Wisconsin	1,835.4	352.9	384.2	279.1	768.4	403.7	562.0	405.0	488.4	25.6	41.6
Wyoming	428.3	892.2	38.7	42.8	243.0	103.8	149.0	107.9	466.5	14.2	-

- 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 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. 947. Energy Expenditures—End-Use Sector and Selected Source by State: 1996

[In millions of dollars ($567,318 represents $567,318,000,000). End-use sector and electric utilities exclude expenditure 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.	**567,318**	**138,691**	**100,209**	**119,786**	**208,632**	**266,595**	**91,769**	**27,522**	**213,645**
AL	9,816	2,234	1,342	2,557	3,682	4,312	1,298	1,345	3,884
AK	2,180	334	344	235	1,266	1,520	252	26	485
AZ	8,574	2,125	1,711	1,069	3,669	4,005	574	534	4,019
AR	5,812	1,363	728	1,400	2,322	2,625	981	406	2,216
CA	55,187	11,970	10,748	8,617	23,853	25,651	8,879	87	21,568
CO	6,881	1,563	1,250	1,013	3,054	3,521	1,097	362	2,244
CT	7,248	2,387	1,699	797	2,366	3,605	932	54	2,991
DE	1,692	463	293	350	585	822	232	75	704
DC	1,334	288	763	17	266	306	281	2	747
FL	25,117	7,515	4,916	2,265	10,421	12,121	1,928	1,205	12,588
GA	15,642	3,906	2,702	3,006	6,028	7,017	1,995	1,234	6,484
HI	2,288	417	415	482	973	1,338	42	6	1,152
ID	2,550	466	338	608	1,138	1,471	226	13	821
IL	25,089	7,064	4,814	5,504	7,706	9,879	5,382	1,492	9,688
IN	14,106	3,178	1,691	4,145	5,092	6,257	2,743	1,782	4,668
IA	6,649	1,650	915	1,701	2,383	3,166	1,220	402	2,157
KS	5,850	1,344	1,029	1,374	2,104	2,802	1,083	318	2,025
KY	9,045	1,780	1,074	2,509	3,682	4,755	1,036	1,107	3,067
LA	15,120	2,237	1,480	6,641	4,762	7,643	3,751	333	4,442
ME	3,158	915	487	654	1,103	1,923	43	12	1,137
MD	9,583	2,851	2,091	1,086	3,554	4,471	1,220	432	3,928
MA	13,087	3,875	3,223	1,790	4,199	5,871	2,622	211	4,993
MI	19,758	5,033	3,726	4,316	6,684	8,499	4,264	1,102	6,806
MN	9,869	2,310	1,252	2,311	3,996	5,176	1,537	391	3,090
MS	5,963	1,334	867	1,276	2,486	3,091	749	205	2,326
MO	11,532	2,996	1,940	1,670	4,927	5,884	1,615	635	4,002
MT	2,171	403	289	490	989	1,290	258	113	611
NE	3,814	830	631	717	1,635	1,999	612	120	1,196
NV	3,637	727	504	792	1,614	1,812	590	232	1,338
NH	2,525	817	512	324	871	1,328	146	73	1,059
NJ	18,764	5,075	4,303	2,925	6,461	8,382	3,532	132	6,925
NM	3,427	658	653	493	1,623	1,824	512	385	1,172
NY	34,089	11,118	10,342	3,805	8,825	12,117	7,913	463	14,682
NC	15,823	4,277	2,571	3,117	5,858	7,332	1,275	1,067	7,068
ND	1,699	332	226	494	647	894	163	411	466
OH	25,556	6,604	4,407	6,288	8,257	10,321	5,139	1,898	9,831
OK	7,333	1,661	1,068	1,651	2,954	3,390	1,884	349	2,398
OR	6,058	1,232	874	1,114	2,838	3,200	610	21	2,197
PA	25,810	7,598	4,428	5,465	8,318	10,656	4,314	2,113	10,157
RI	2,044	669	443	268	664	941	473	-	716
SC	8,177	1,993	1,167	2,133	2,884	3,545	741	539	3,771
SD	1,629	398	231	277	723	981	158	42	483
TN	11,604	2,621	1,938	2,380	4,664	5,507	1,340	789	4,587
TX	55,070	9,509	6,834	21,307	17,420	30,027	10,365	1,900	17,386
UT	3,708	707	550	601	1,849	2,125	529	374	1,042
VT	1,368	429	239	186	514	794	40	-	525
VA	13,451	3,710	2,500	1,784	5,457	6,544	1,448	525	5,349
WA	10,330	2,086	1,446	1,647	5,151	5,806	909	136	3,531
WV	4,002	881	520	1,155	1,446	2,062	568	1,119	1,308
WI	10,156	2,553	1,499	2,255	3,849	4,908	2,014	562	3,113
WY	1,873	206	193	656	818	1,075	250	389	499

- 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. 948. Energy Expenditures and Average Fuel Prices by Source and Sector: 1970 to 1997

[82,862 represents $82,862,000,000. 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	1993	1994	1995	1996	1997
EXPENDITURES (mil. dol.)											
Total [1 2]	**82,862**	**111,591**	**171,828**	**374,359**	**437,292**	**471,786**	**491,904**	**505,518**	**515,321**	**561,473**	**567,318**
Natural gas	10,891	13,933	20,061	51,061	72,938	64,102	75,941	77,716	74,150	85,634	91,769
Petroleum products [2]	47,942	65,257	103,372	237,628	223,591	235,224	222,936	229,804	236,937	268,071	266,595
Motor gasoline	31,596	39,667	59,446	124,408	118,043	126,454	126,401	129,897	136,475	148,230	149,549
Coal	4,594	6,251	13,047	22,648	29,723	28,372	27,763	27,186	26,861	27,368	27,522
Electricity sales	23,345	33,780	50,680	98,095	149,233	176,737	196,579	200,883	205,932	211,011	213,645
Residential sector	20,151	27,078	36,988	69,523	99,009	110,057	125,019	126,963	128,423	137,628	138,691
Commercial sector	10,654	15,107	22,839	46,888	70,267	78,828	86,474	89,409	91,587	95,798	100,209
Industrial sector	16,678	23,502	41,068	94,268	106,835	102,336	105,563	109,112	107,732	120,005	119,786
Transportation sector [2]	35,379	45,904	70,933	163,680	161,182	180,565	174,847	180,034	187,578	208,041	208,632
Motor gasoline	30,525	38,598	57,992	121,809	115,199	123,742	124,549	127,942	134,471	145,993	147,046
Electric utilities	-4,316	7,817	-16,396	-37,435	-42,558	-38,276	-36,692	-36,166	-34,810	-36,614	-37,815
AVERAGE FUEL PRICES (dol. per mil. Btu)											
All sectors	**1.65**	**2.02**	**3.33**	**6.89**	**8.36**	**8.29**	**8.27**	**8.31**	**8.29**	**8.77**	**8.82**
Residential sector	2.11	2.73	3.81	7.44	10.93	11.91	12.29	12.63	12.57	12.68	13.24
Commercial sector	1.96	2.56	4.09	7.88	11.71	12.02	12.68	12.87	12.75	12.88	13.15
Industrial sector	0.98	1.09	2.12	5.15	6.27	5.25	4.99	4.92	4.74	5.49	5.20
Transportation sector	2.31	2.57	4.02	8.61	8.26	8.27	7.87	7.88	8.04	8.72	8.65
Electric utilities	0.32	0.46	0.96	1.75	1.85	1.46	1.35	1.30	1.23	1.28	1.30

[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. 949. Residential Energy Consumption, Expenditures, and Average Price, 1980 to 1997

[For period April to March for 1980-1985; January to December for 1987 to 1997. 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. Btu=British thermal unit; see text, this section]

Type of fuel	Unit	1980	1983	1985	1987	1990	1993	1997
CONSUMPTION								
Total	**Quad. Btu**	**9.74**	**8.62**	**9.04**	**9.13**	**9.22**	**10.01**	**10.25**
Avg. per household	Mil. Btu	126	103	105	101	98	103.6	101.5
Natural gas	Quad. Btu	5.31	4.77	4.98	4.83	4.86	5.27	5.28
Electricity	Quad. Btu	2.42	2.42	2.48	2.76	3.03	3.28	3.54
Fuel oil, kerosene	Quad. Btu	1.71	1.14	1.26	1.22	1.04	1.07	1.07
Liquid petroleum gas	Quad. Btu	0.31	0.29	0.31	0.32	0.28	0.38	0.36
EXPENDITURES								
Total	**Bil. dol.**	**63.2**	**87.8**	**97.0**	**97.7**	**110.2**	**123.91**	**135.79**
Avg. per household	Dollars	(NA)	(NA)	(NA)	1,080	1,172	1,282	1,338
Natural gas	Bil. dol.	17.8	27.1	29.8	26.1	27.3	32.04	35.81
Electricity	Bil. dol.	32.6	48.4	54.5	61.6	71.5	81.08	88.33
Fuel oil, kerosene	Bil. dol.	10.7	9.6	9.6	7.2	8.3	6.98	7.61
Liquid petroleum gas	Bil. dol.	2.1	2.7	3.1	2.8	3.1	3.81	4.04
AVERAGE PRICE								
Total	**Dol./mil. Btu**	**6.49**	**10.18**	**10.73**	**10.71**	**12.00**	**12.38**	**13.25**
Natural gas	Dol./mil. Btu	3.36	5.67	5.97	5.41	5.60	6.07	6.78
Electricity	Dol./mil. Btu	13.46	19.98	21.94	22.34	23.60	24.69	24.97
Fuel oil, kerosene	Dol./mil. Btu	6.29	8.42	7.64	5.89	7.90	6.52	15.56
Liquid petroleum gas	Dol./mil. Btu	6.71	9.42	9.91	8.91	11.20	10.04	11.23

NA Not available.

Source: U.S. Energy Information Administration, *Residential Energy Consumption Survey: Consumption and Expenditures,* annual through 1983 beginning 1985, triennial. For 1987 and 1993, *Household Energy Consumption and Expenditures,* 1987, 1990, 1993, and 1997.

No. 950. Residential Energy Consumption and Expenditures by Type of Fuel and Selected Household Characteristic: 1997

[For period January through December. Quad.=quadrillion. See headnote, Table 949]

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	**10.25**	**101**	**5.28**	**3.54**	**1.01**	**135.8**	**1,338**	**35.81**	**88.33**	**7.11**
Single family	8.46	115	4.46	2.84	0.83	110.0	1,492	29.97	70.33	6.13
2- to 4-unit building	0.51	92	0.34	0.12	0.05	6.2	1,108	2.36	3.47	0.35
5 or more unit building	0.77	49	0.32	0.32	0.12	11.9	755	2.46	8.84	0.59
Mobile home	0.50	80	0.16	0.25	(B)	7.6	1,206	1.02	5.68	(B)
Year house built:										
1949 or earlier	3.48	125	2.05	0.74	0.54	39.6	1,420	14.15	20.03	3.77
1950 to 1959	1.33	106	0.77	0.39	0.15	16.8	1,340	5.30	10.14	1.08
1960 to 1969	1.39	96	0.73	0.47	0.14	18.3	1,264	4.88	11.85	0.97
1970 to 1979	1.71	87	0.74	0.80	0.09	25.3	1,291	4.75	19.03	0.63
1980 to 1989	1.41	82	0.56	0.74	0.06	22.5	1,302	3.83	17.62	0.44
1990 to 1997	0.92	95	0.43	0.41	0.03	13.3	1,369	2.91	9.66	0.22
1997 family income:										
Less than $10,000	1.02	76	0.53	0.33	0.11	13.3	2,013	(NA)	(NA)	(NA)
$10,000 to $24,999	2.54	87	1.30	0.89	0.22	33.7	3,478	(NA)	(NA)	(NA)
$25,000 to $49,999	3.19	103	1.65	1.08	0.31	41.6	2,670	(NA)	(NA)	(NA)
$50,000 or more	3.49	125	1.80	1.24	0.37	47.3	3,434	(NA)	(NA)	(NA)

B Base figure too small to meet statistical standards for reliability of a derived figure. NA Not available. [1] Includes liquid petroleum gas, not shown separately. [2] Includes kerosene.

Source: U.S. Energy Information Administration, *Household Energy Consumption and Expenditures, 1987, 1990, 1993,* and *1997.*

No. 951. 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).** 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 off-site or was produced on-site from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (on-site) 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 on-site 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. 952. 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 map, 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. 953. Energy Prices: 1980 to 1998

Product	Unit	1980	1990	1992	1993	1994	1995	1996	1997	1998
Crude oil domestic first purchase price:										
Nominal	Dol/bbl	21.6	20.0	16.0	14.3	13.2	14.6	18.5	17.2	10.87
Real [1]	Dol/bbl	37.9	23.2	17.4	15.2	13.7	14.9	18.5	16.9	10.54
Motor gasoline	Cents/gal.	122.1	121.7	119.0	117.3	117.4	120.5	128.8	129.1	112.0
Leaded regular	Cents/gal.	119.1	114.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Unleaded regular	Cents/gal.	124.5	116.4	112.7	110.8	111.2	114.7	123.1	123.4	106
Premium	Cents/gal.	(NA)	134.9	131.6	130.2	130.5	133.6	141.3	141.6	125.0
Natural gas, residential	Dol/1,000 cu. ft.	3.7	5.8	5.9	6.2	6.4	6.1	6.3	6.9	6.8
Heating oil, residential	Cents/gal.	97.4	106.3	93.4	91.7	88.4	86.7	98.9	98.4	85.2
Coal, all	Dol/short tons.	24.7	21.8	21.0	19.9	19.4	18.8	18.5	26.2	17.7
Electricity, total	Cents/kilowatthour.	4.7	6.6	6.8	6.9	6.9	6.9	6.9	6.9	6.74
Uranium, domestic purchases	Dol/lb	(NA)	15.7	13.5	13.1	10.3	11.1	13.8	12.9	12.3

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. 954. Fossil Fuel Prices in Current and Constant (1996) Dollars: 1970 to 1999

[In cents per million British thermal units (Btu). 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	1993	1994	1995	1996	1997	1998	1999
CURRENT DOLLARS													
Composite [1]	0.32	0.40	0.82	2.04	2.51	1.84	1.67	1.53	1.47	1.82	1.81	1.41	1.63
Crude oil	0.55	0.67	1.32	3.72	4.15	3.45	2.46	2.27	2.52	3.18	2.97	1.87	2.68
Natural gas	0.15	0.20	0.40	1.45	2.26	1.55	1.84	1.67	1.40	1.96	2.10	1.75	1.86
Bituminous coal [2]	0.27	0.37	0.84	1.10	1.15	1.00	0.93	0.91	0.88	0.87	0.85	0.83	0.83
CONSTANT (1996) DOLLARS													
Composite [1]	1.09	1.18	2.05	3.58	3.41	2.13	1.78	1.59	1.50	1.82	1.77	1.36	1.55
Crude oil	1.89	2.00	3.30	6.52	5.64	3.99	2.61	2.37	2.57	3.18	2.92	1.82	2.56
Natural gas	0.53	0.60	1.00	2.54	3.06	1.79	1.96	1.74	1.43	1.96	2.06	1.70	1.78
Bituminous coal [2]	0.92	1.09	2.11	1.93	1.56	1.15	0.99	0.94	0.90	0.87	0.84	0.81	0.80

[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. 955. Energy Imports and Exports by Type of Fuel: 1970 to 1998

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

Type of fuel	1970	1973	1975	1980	1985	1990	1993	1994	1995	1996	1997	1998
Net imports:[1]												
Coal	-0.96	-1.01	-3.24	-4.60	-4.39	-4.42	-2.83	-2.58	-3.24	-3.41	-3.13	-2.75
Natural gas (dry)	0.23	0.32	1.06	3.98	2.79	2.71	4.41	4.50	3.86	5.33	6.02	5.82
Petroleum	0.98	2.93	5.76	10.42	12.57	12.67	7.59	7.78	6.39	11.01	9.37	7.33
Other [2]	-0.08	0.01	0.08	-0.08	-0.03	0.02	0.11	0.23	0.27	0.18	0.20	0.25
Imports:												
Coal	(Z)	(Z)	0.02	0.03	0.07	0.09	0.22	0.23	0.25	0.24	0.26	0.28
Natural gas (dry)	0.26	0.36	1.15	4.21	3.05	2.97	4.77	4.90	4.23	5.79	6.50	6.33
Petroleum	1.48	3.50	6.77	12.54	17.47	16.90	11.74	11.14	9.95	15.27	16.93	13.01
Other [2]	(Z)	0.04	0.16	0.05	0.04	0.07	0.12	0.13	0.16	0.11	0.12	0.14
Exports:												
Coal	0.96	1.01	3.26	4.63	4.47	4.51	3.09	2.85	3.57	3.69	3.39	3.00
Natural gas (dry)	0.03	0.04	0.09	0.23	0.26	0.27	0.36	0.40	0.37	0.46	0.47	0.42
Petroleum	0.50	0.57	1.01	2.12	4.90	4.23	4.15	3.36	3.56	4.25	7.55	5.67
Other [2]	0.08	0.03	0.07	0.13	0.08	0.05	0.06	0.04	0.05	0.06	0.05	0.04

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. 956. U.S. Foreign Trade in Selected Mineral Fuels: 1973 to 1998

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

Mineral fuel	Unit	1973	1975	1980	1985	1990	1994	1995	1996	1997	1998
NATURAL GAS											
Imports	Bil. cu. ft.	1,033	953	985	950	1,532	2,624	2,841	2,937	2,994	3,152
Exports	Bil. cu. ft.	77	73	49	55	86	162	154	153	157	159
Net trade	Bil. cu. ft.	-956	-880	-936	-894	-1,446	-2,462	-2,687	-2,784	-2,837	-2,993
CRUDE OIL											
Imports [1]	Mil. bbl.	1,184	1,498	1,926	1,168	2,151	2,578	2,639	2,740	3,002	3,178
Exports	Mil. bbl.	1	2	105	75	40	36	35	40	39	40
Net trade	Mil. bbl.	-1,183	-1,496	-1,821	-1,093	-2,112	-2,542	-2,604	-2,700	-2,963	-3,138
PETROLEUM PRODUCTS											
Imports	Mil. bbl.	1,099	712	603	681	775	706	586	719	707	731
Exports	Mil. bbl.	84	74	94	211	273	308	312	318	318	327
Net trade	Mil. bbl.	-1015	-638	-509	-470	-502	-398	-274	-402	-389	-404
COAL											
Imports	1,000 sh. tons	127	940	1,194	1,952	2,699	8,870	9,473	8,115	7,487	8,724
Exports	1,000 sh. tons	53,587	66,309	91,742	92,680	105,804	71,359	88,547	90,473	83,545	78,048
Net trade	1,000 sh. tons	53,460	65,369	90,548	90,728	103,105	62,489	79,074	82,358	76,058	69,324

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

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

No. 957. Crude Oil Imports Into the 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**	**1,498**	**1,921**	**1,168**	**2,151**	**2,220**	**2,477**	**2,578**	**2,643**	**2,748**	**3,002**	**3,178**
Total OPEC [1]	183	765	1,172	1,410	479	1,283	1,243	1,317	1,307	1,303	1,280	1,376	1,518
Persian Gulf [2], total	23	293	409	550	89	657	597	598	589	539	544	597	746
Arab OPEC	52	258	404	713	110	680	608	607	597	549	547	599	746
Algeria	2	44	96	166	31	23	9	9	8	10	3	2	(NA)
Iraq	-	1	1	10	17	188	-	-	-	-	-	33	123
Kuwait [3]	12	15	1	10	1	29	14	126	112	78	86	92	109
Qatar	-	3	7	8	-	1	-	-	-	-	-	-	1
Saudi Arabia [3]	15	169	256	456	48	436	585	468	473	460	457	472	512
United Arab Emirates	23	26	43	63	13	3	-	4	4	1	1	-	1
Other OPEC [2], total	160	472	763	860	390	625	646	720	717	764	735	779	772
Indonesia	26	73	138	115	107	36	26	24	34	23	16	19	18
Nigeria	17	164	272	307	102	286	243	264	228	226	218	252	251
Venezuela	98	126	144	57	112	243	302	369	377	421	477	509	503
Non-OPEC [4], total	245	419	326	511	689	869	977	1,160	1,271	1,340	1,410	1,624	1,656
Canada	245	365	219	73	171	235	292	329	359	380	394	437	462
Ecuador [5]	[44]	[44]	[4]14	23	28	33	36	35	42	36			
Gabon	-	-	10	9	19	23	45	55	71	84	67	84	(NA)
Malaysia	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	4	2	2	2	3	9
Mexico	-	(Z)	26	185	261	251	288	315	343	375	442	496	482
Norway	-	-	4	53	11	35	43	50	69	95	107	105	81
Trinidad and Tobago	(Z)	22	42	42	36	28	26	20	23	23	21	20	19
United Kingdom	-	-	(Z)	63	101	57	73	114	145	125	79	62	59

- 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] 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. [5] Ecuador withdrew from OPEC on Dec. 31, 1992; therefore, it is included under OPEC for the period 1973 to 1992.

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

No. 958. Crude Oil and Refined Products—Summary: 1973 to 1999

[Barrels of 42 gallons. Data are averages]

Year	Crude 0il (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	14,889	6,252	8,706	-	110	18,917	2,002	835	10,708	895	571
1999	14,807	5,925	8,588	6	118	19,389	1,964	822	10,551	852	567

- 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. 959. Petroleum and Coal Products Corporations—Sales, Net Profit, and Profit Per Dollar of Sales: 1980 to 1999

[Represents SIC Group 29. Profit rates are averages of quarterly figures at annual rates. Beginning 1990, excludes estimates for corporations with less than $250,000 in assets]

Item	Unit	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Sales	Bil. dol	333.2	320.9	318.5	282.2	278.0	266.1	268.2	283.1	323.5	320.0	250.4	288.4
Net profit:													
Before income taxes	Bil. dol	39.1	17.7	23.1	12.1	2.0	14.9	17.2	16.5	32.6	36.8	9.7	20.7
After income taxes	Bil. dol	25.5	12.7	17.8	10.8	3.1	13.0	14.9	13.9	26.6	29.4	8.3	17.7
Depreciation [1]	Bil. dol	11.6	22.1	18.7	18.0	18.3	17.4	17.1	16.7	15.9	15.6	14.7	14.0
Profits per dollar of sales:													
Before income taxes	Cents	11.7	5.5	7.3	4.3	0.4	5.6	6.3	5.8	10.1	11.5	3.5	7.0
After income taxes	Cents	7.7	4.0	5.6	3.8	0.9	4.9	5.5	4.9	8.2	9.2	3.1	5.9
Profits on stockholders' equity:													
Before income taxes	Percent	30.7	11.7	16.4	8.6	1.6	11.8	13.2	12.6	23.2	23.5	6.0	13.5
After income taxes	Percent	20.0	8.5	12.7	7.6	2.5	10.2	11.4	10.6	18.9	18.9	5.2	11.5

[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. 960. Major Petroleum Companies—Financial Data Summary: 1973 to 1999

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

Item	1973	1975	1980	1985	1990	1994	1995	1996	1997	1998	1999
FINANCIAL DATA (bil. dol.)											
Net income	11.8	11.6	32.9	19.4	26.8	20.3	24.3	39.7	40.0	14.5	35.0
Depreciation, depletion, etc	10.5	11.3	32.5	53.0	38.7	38.9	43.1	44.4	46.0	61.0	45.9
Cash flow [1]	22.3	22.8	65.4	72.4	65.5	59.2	67.4	84.1	86.0	75.5	80.9
Dividends paid	4.0	4.7	9.3	12.0	15.9	16.4	17.6	18.9	20.1	20.9	23.2
Net internal funds available for investment or debt repayment [2]	18.3	18.1	56.1	60.4	49.6	42.8	49.8	65.2	65.9	54.6	57.7
Capital and exploratory expenditures	16.3	26.9	62.1	58.3	59.6	51.5	59.8	59.3	75.3	83.9	66.2
Long-term capitalization	102.9	121.1	211.4	272.1	300.0	299.0	304.3	336.6	372.5	382.0	402.3
Long-term debt	22.5	28.9	49.8	93.5	90.4	89.1	85.4	80.8	86.1	103.9	106.8
Preferred stock	0.4	0.4	2.0	3.3	5.2	5.4	5.7	5.8	5.1	3.9	3.9
Common stock and retained earnings [3]	80.0	91.9	159.6	175.3	204.4	204.5	213.2	250.0	281.3	274.2	291.6
Excess of expenditures over cash income [4]	-2.0	8.9	6.0	-2.1	10.0	8.7	10.0	-5.9	9.4	29.3	8.5
RATIOS [5] (percent)											
Long-term debt to long-term capitalization	22.0	23.8	23.6	34.4	30.1	29.8	28.1	24.0	23.1	27.2	26.5
Net income to total average capital	12.0	10.0	17.0	7.0	9.1	6.8	8.1	12.4	11.3	3.8	8.9
Net income to average common equity	15.6	13.1	22.5	10.8	13.5	10.1	11.6	17.1	15.1	5.2	12.4

[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,* annual.

No. 961. Electric Utility Sales and Average Prices by End-Use Sector: 1970 to 1999

[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				Chained (1996) 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	5.8	7.6	7.2	3.4
1973	1,713	579	388	686	2.0	2.5	2.4	1.3	6.0	7.4	7.1	3.9
1975	1,747	588	403	688	2.9	3.5	3.5	2.1	7.2	8.7	8.7	5.2
1980	2,094	717	488	815	4.7	5.4	5.5	3.7	8.2	9.5	9.6	6.5
1985	2,324	794	606	837	6.4	7.39	7.27	4.97	8.7	10.0	9.9	6.7
1986	2,369	819	631	831	6.4	7.42	7.20	4.93	8.6	9.8	9.6	6.6
1987	2,457	850	660	858	6.4	7.45	7.08	4.77	8.2	9.6	9.1	6.2
1988	2,578	893	699	896	6.4	7.48	7.04	4.70	7.9	9.3	8.8	5.9
1989	2,647	906	726	926	6.5	7.65	7.20	4.72	7.8	9.2	8.6	5.7
1990	2,713	924	751	946	6.6	7.83	7.34	4.74	7.6	9.0	8.5	5.5
1991	2,762	955	766	947	6.8	8.04	7.53	4.83	7.5	9.0	8.4	5.4
1992	2,763	936	761	973	6.8	8.21	7.66	4.83	7.4	8.9	8.3	5.3
1993	2,861	995	795	977	6.9	8.32	7.74	4.85	7.4	8.8	8.2	5.2
1994	2,935	1,008	820	1,008	6.9	8.38	7.73	4.77	7.2	8.7	8.0	5.0
1995	3,013	1,043	863	1,013	6.9	8.40	7.69	4.66	7.0	8.6	7.8	4.8
1996	3,098	1,082	887	1,030	6.9	8.36	7.64	4.60	6.9	8.4	7.6	4.6
1997	3,140	1,076	928	1,033	6.9	8.43	7.59	4.53	6.7	8.3	7.4	4.4
1998	3,240	1,128	969	1,040	6.7	8.26	7.41	4.48	6.5	8.0	7.2	4.3
1999	3,265	1,139	975	1,050	6.6	8.17	7.20	4.42	6.3	7.8	6.9	4.2

[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. 962. Electric Utility Industry—Net Generation, Net Summer Capability, Generating Units, and Consumption of Fuels: 1980 to 1998

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

Item	Unit	1980	1990	1992	1993	1994	1995	1996	1997	1998
RETAIL SALES										
Retail sales, total	**Bil. kWh**	**2,094**	**2,713**	**2,763**	**2,861**	**2,935**	**3,013**	**3,098**	**3,140**	**3,240**
Net generation by electric utilities	Bil. kWh	2,286	2,808	2,797	2,883	2,911	2,995	3,077	3,123	3,212
Purchases by utilities from nonutility purchasers	Bil. kWh	1	116	166	189	209	222	229	243	259
Imports	Bil. kWh	25	23	37	39	52	47	47	(NA)	(NA)
Exports	Bil. kWh	4	21	9	11	8	9	9	(NA)	(NA)
Losses and unaccounted for	Bil. kWh	214	214	229	238	223	232	277	(NA)	(NA)
NET GENERATION										
Total	**Bil. kWh**	**2,286**	**2,808**	**2,797**	**2,883**	**2,911**	**2,995**	**3,077**	**3,123**	**3,212**
Average annual change [1]	Percent	3.5	0.9	-1.0	3.0	1.0	2.8	2.7	1.5	2.9
Net generation, kWh per kW of net summer capability [2]	Rate	3,951	4,067	4,024	4,119	4,147	4,248	4,333	(NA)	(NA)
Source of energy:										
Coal [3]	Percent	50.8	55.6	56.3	56.9	56.2	55.2	57.0	57.3	56.3
Nuclear	Percent	11.0	20.5	22.1	21.2	22.0	22.5	22.0	20.1	21.0
Oil	Percent	10.8	4.2	3.2	3.5	3.1	2.0	2.0	2.5	3.4
Gas	Percent	15.1	9.4	9.4	9.0	10.0	10.3	9.0	9.1	9.6
Hydro	Percent	12.1	10.1	8.7	9.3	8.5	9.9	11.0	10.9	9.6
Type of prime mover: [4]										
Hydro	Bil. kWh	276	280	240	265	244	294	328	337	304
Steam conventional [5]	Bil. kWh	1,726	1,919	1,908	1,964	1,982	1,977	2,018	2,094	2,158
Gas turbine and internal combustion	Bil. kWh	28	14	21	25	36	44	49	55	69
Steam nuclear	Bil. kWh	251	577	619	610	640	673	675	629	674
Other	Bil. kWh	6	11	10	10	9	6	7	(NA)	(NA)
NET SUMMER CAPABILITY										
Total [6]	**Mil. kW**	**579**	**691**	**695**	**700**	**702**	**705**	**710**	**(NA)**	**687**
Average annual change [1]	Percent	3.3	0.8	0.3	0.7	0.3	0.4	0.7	(NA)	(NA)
Hydro	Mil. kW	82	91	93	96	96	97	94	(NA)	94
Steam conventional [7]	Mil. kW	397	448	447	447	446	446	442	(NA)	423
Gas turbine	Mil. kW	43	46	50	52	55	57	53	(NA)	53
Steam nuclear	Mil. kW	52	100	99	99	99	99	101	(NA)	97
Internal combustion	Mil. kW	5	5	5	5	5	5	5	(NA)	5
Geothermal and other	Mil. kW	1	2	2	2	2	2	2	(NA)	2
Combined cycle	Mil. kW	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	14	(NA)	14
NUMBER OF GENERATING UNITS										
Total [8]	**Number**	**11,084**	**10,296**	**10,221**	**10,471**	**10,427**	**10,396**	**10,422**	**(NA)**	**10,207**
Hydro	Number	3,275	3,479	3,497	3,388	3,362	3,337	3,480	3,346	3,406
Steam conventional	Number	2,862	2,354	2,307	2,221	2,170	2,157	2,153	(NA)	2,022
Gas turbine	Number	1,447	1,460	1,501	1,411	1,446	1,486	1,542	(NA)	1,490
Steam nuclear	Number	74	111	109	109	109	109	110	110	104
Internal combustion	Number	3,410	2,847	2,807	2,976	2,953	2,920	2,884	(NA)	2,929
CONSUMPTION OF FOSSIL FUELS										
Net generation by fuel [9]	**Quad. Btu**	**18.56**	**20.32**	**19.99**	**20.58**	**20.92**	**20.92**	**21.44**	**(NA)**	**(NA)**
Coal	Quad. Btu	12.12	16.19	16.21	16.79	16.90	16.99	17.91	18.44	18.72
Percent of total	Percent	65.30	79.68	81.09	81.58	80.78	81.21	83.5	(NA)	(NA)
Petroleum	Quad. Btu	2.63	1.25	0.95	1.05	0.97	0.66	0.73	0.84	1.17
Gas	Quad. Btu	3.81	2.88	2.83	2.74	3.05	3.28	2.81	3.03	3.32
Fuel consumed:										
Coal	Mil. sh. tons	569	774	780	814	817	829	875	900	911
Oil	Mil. bbl.	421	200	152	169	155	102	113	125	179
Gas	Bil cu. ft.	3,682	2,787	2,766	2,682	2,987	3,197	2,732	2,968	3,258

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. 963. Electric Utility Industry—Capability, Peak Load, and Capacity Margin: 1980 to 1998

[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
1998	727,242	-1,837	742,391	-1,383	648,694	573,107	78,548	10.8	169,284	22.8

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

No. 964. Electric Energy Sales by Class of Service and by State, 1999

[In billions of kilowatt-hours (3,265.4 represents 3,265,400,000,000)]

State	Total [1]	Residential	Commercial	Industrial	State	Total [1]	Residential	Commercial	Industrial
Total [2]	**3,265.4**	**1,139.5**	**975.2**	**1,050.4**	Missouri	68.0	27.5	23.9	15.7
					Montana	9.4	3.6	3.1	2.5
Alabama	78.9	26.7	15.3	36.2	Nebraska	23.0	8.0	6.7	6.9
Alaska	5.3	1.9	2.4	0.9	Nevada	26.0	8.3	6.0	10.8
Arizona	57.2	22.6	20.1	11.7	New Hampshire	9.7	3.6	3.5	2.5
Arkansas	39.1	13.9	8.3	16.2	New Jersey	70.6	24.6	32.3	13.3
California	230.4	75.6	90.0	60.3					
					New Mexico	17.9	4.6	6.0	5.8
Colorado	40.9	13.2	17.4	9.3	New York	126.9	41.7	46.9	25.4
Connecticut	29.7	11.6	11.8	6.0	North Carolina	114.5	43.4	34.7	34.3
Delaware	10.7	3.6	3.4	3.8	North Dakota	8.2	3.3	2.6	1.8
Dist. of Columbia	10.4	1.6	8.1	0.2	Ohio	161.3	46.5	38.9	71.7
Florida	186.4	93.6	70.0	17.1					
					Oklahoma	46.4	18.2	12.6	12.9
Georgia	109.6	40.9	33.5	33.8	Oregon	49.4	17.9	14.3	16.6
Hawaii	9.4	2.7	2.9	3.7	Pennsylvania	132.4	44.5	38.2	48.4
Idaho	21.9	6.8	6.4	8.3	Rhode Island	7.1	2.7	2.9	1.4
Illinois	131.6	39.4	40.3	43.3	South Carolina	72.4	23.3	16.6	31.5
Indiana	95.7	28.7	19.7	46.8					
					South Dakota	7.9	3.3	2.3	1.9
Iowa	36.9	11.8	8.0	15.7	Tennessee	93.0	35.3	12.6	44.1
Kansas	33.4	11.5	11.9	9.7	Texas	298.7	107.3	79.7	98.3
Kentucky	75.9	22.2	12.0	38.5	Utah	22.0	6.3	7.4	7.5
Louisiana	77.9	26.3	17.5	31.3	Vermont	5.4	2.0	1.9	1.5
Maine	11.9	3.7	3.5	4.7					
					Virginia	92.3	35.5	26.8	20.0
Maryland	59.4	23.5	25.1	10.0	Washington	93.2	33.0	23.1	33.5
Massachusetts	50.6	17.3	22.5	10.2	West Virginia	27.1	9.4	6.5	11.1
Michigan	102.8	30.7	35.0	36.3	Wisconsin	63.9	19.6	17.0	26.6
Minnesota	56.8	18.2	11.1	26.8	Wyoming	12.3	2.1	2.6	7.1
Mississippi	43.3	16.0	9.8	16.7					

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

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

No. 965. Electric Energy—Net Generation and Net Summer Capability by State: 1990 to 1998

[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)	
			1998							1998			
	1990	1995	Total	Percent from coal	1995	1998		1990	1995	Total	Percent from coal	1995	1998
U.S	**2,286.4**	**2,994.5**	**3,212.2**	**56.3**	**706.1**	**711.9**							
							MO	48.9	65.4	74.9	83.4	15.7	16.2
AL	78.3	99.6	113.4	63.0	20.5	20.8	MT	15.5	25.4	27.6	59.8	4.9	4.9
AK	3.1	4.8	4.6	3.7	1.7	1.8	NE	16.3	25.3	28.7	63.8	5.5	5.8
AZ	36.9	69.0	81.3	44.6	15.2	15.2	NV	14.1	20.0	26.6	64.6	5.6	5.6
AR	19.7	39.5	43.2	53.6	9.6	9.7	NH	6.0	13.9	14.2	24.7	2.5	2.5
CA	140.3	121.9	114.9	-	43.3	43.7	NJ	29.4	27.1	35.9	15.6	13.8	13.7
CO	23.6	32.7	35.5	93.3	6.6	6.9	NM	24.7	29.4	31.4	87.6	5.1	5.2
CT	24.7	26.9	15.1	9.8	6.7	6.3	NY	108.6	101.2	115.8	20.3	32.1	30.0
DE	6.7	8.3	6.3	60.3	2.2	2.3	NC	72.1	96.1	113.1	61.0	20.6	21.1
DC	0.7	0.2	0.2	-	0.8	0.8	ND	15.8	28.8	30.5	92.3	4.5	4.7
FL	95.9	147.2	169.4	38.6	35.9	36.7	OH	110.2	137.9	146.4	87.9	27.4	26.6
GA	63.3	102.0	108.7	64.3	22.3	23.1	OK	44.6	48.0	51.5	60.3	12.9	12.9
HI	6.5	6.2	6.3	-	1.6	1.6	OR	36.6	44.0	46.4	7.2	10.4	10.5
ID	9.5	10.1	12.0	-	2.6	2.6	PA	122.5	168.9	173.9	61.3	33.7	33.8
IL	103.4	145.2	131.3	53.6	33.1	33.5	RI	1.0	0.7	2.1	-	0.4	0.4
IN	70.6	105.2	112.8	98.2	20.7	20.2	SC	41.9	78.4	84.4	38.4	16.7	17.4
IA	21.8	33.5	37.1	86.0	8.2	8.2	SD	8.6	8.8	9.1	34.0	3.0	2.9
KS	25.1	38.2	41.5	67.6	9.7	9.8	TN	60.2	82.3	94.1	58.5	16.1	17.4
KY	57.1	86.2	86.2	95.7	15.4	15.7	TX	203.0	261.7	293.1	45.3	64.4	64.9
LA	45.7	65.6	66.1	31.4	17.0	17.1	UT	32.1	35.2	94.4	4.8	4.9	
ME	7.9	2.7	3.5	-	2.4	1.5	VT	3.8	4.8	4.4	-	1.1	1.1
MD	32.2	44.7	48.5	59.9	11.0	11.1	VA	34.3	52.7	63.8	49.3	14.3	15.3
MA	34.8	27.0	26.0	31.4	9.3	9.4	WA	92.3	95.7	97.1	9.6	24.3	25.3
MI	74.8	92.5	85.1	81.2	22.0	21.9	WV	70.8	77.3	89.6	99.3	14.5	14.5
MN	31.5	42.5	44.0	68.0	8.9	9.2	WI	37.8	51.0	52.5	75.7	11.5	11.8
MS	18.5	26.4	32.0	36.7	7.2	7.2	WY	22.4	39.7	44.7	96.8	6.0	6.0

- Represents zero.

Source: U.S. Energy Information Administration, *Electric Power Annual, Electric Power Monthly,* December issues, and *Inventory of Power Plants in the United States,* annual.

No. 966. Nuclear Power Plants—Number of Units, Net Generation, and Net Summer Capability by State: 1998

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.	**107**	**673,702**	**21**	**99.7**	**14.0**	MN	3	11,644	25	1.6	17.1
						MS	1	9,191	29	1.2	16.8
AL	5	28,663	25	4.9	23.4	MO	1	8,517	11	1.1	7.1
AZ	3	30,301	37	3.8	24.9	NE	2	8,259	29	1.3	21.7
AR	2	13,097	30	1.7	17.5	NH	1	8,387	59	1.2	46.3
CA	4	34,594	30	4.3	9.9	NJ	4	27,132	76	3.9	28.2
CT	3	3,243	21	2.6	41.8	NY	6	31,314	27	5.0	16.5
FL	5	31,115	18	3.9	10.6	NC	5	38,778	34	4.7	22.6
GA	4	31,380	29	4.0	17.1	OH	2	16,476	11	2.0	7.7
IL	13	55,596	42	12.6	37.6	PA	9	61,149	35	9.0	26.6
IA	1	3,768	10	0.5	6.5	SC	7	48,759	58	6.4	36.8
KS	1	10,411	25	1.2	11.9	TN	3	28,388	30	3.4	19.3
LA	2	16,428	25	2.0	11.8	TX	4	38,685	13	4.8	7.4
ME	-	(NA)	(NA)	-	-	VT	1	3,358	76	0.5	45.3
MD	2	13,331	28	1.7	15.1	VA	4	27,234	43	3.4	22.2
MA	1	5,698	22	0.7	7.1	WA	1	6,916	7	1.2	4.6
MI	4	12,494	15	3.9	17.9	WI	3	9,397	18	1.4	12.1

- Represents zero. NA Not available. [1] For total capability and generation, see Table 965.

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

No. 967. Nuclear Power Plants—Number, Capacity, and Generation: 1980 to 1999

Item	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Operable generating units [1]	71	96	112	111	109	110	109	109	109	107	104	104
Net summer capability [1 2] (mil. kW)	51.8	79.4	99.6	99.6	99.0	99.1	99.1	99.5	100.8	99.7	97.1	97.2
Net generation (bil. kWh)	251.1	383.7	577.0	612.6	618.8	610.4	640.5	673.4	674.7	628.6	673.7	727.9
Percent of total electric utility generation	11.0	15.5	19.1	19.9	20.1	19.1	19.7	20.1	19.6	18.0	18.6	19.8
Capacity factor [3]	56.3	58.0	66.0	70.2	70.9	70.5	73.8	77.4	76.2	71.1	78.2	85.5

[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.*

No. 968. Uranium Supply and Discharged Commercial Reactor Fuel: 1980 to 1998

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

Item	Unit	1980	1985	1990	1993	1994	1995	1996	1997	1998, prel.
URANIUM CONCENTRATE										
Production	Mil. lb	43.70	11.31	8.89	3.06	3.35	6.04	6.32	5.64	4.71
Exports	Mil. lb	5.8	5.3	2.0	3.0	17.7	9.8	11.5	17.0	15.1
Imports	Mil. lb	3.6	11.7	23.7	21.0	36.6	41.3	45.4	43.0	43.7
Utility purchases from domestic suppliers	Mil. lb	(NA)	21.7	20.5	15.5	22.7	22.3	22.9	18.7	20.3
Loaded into U.S. nuclear reactors [1]	Mil. lb	(NA)	(NA)	(NA)	45.1	40.4	51.1	46.2	48.2	38.3
Inventories, total	Mil. lb	(NA)	176.9	129.1	105.7	86.9	72.5	80.0	106.2	137.6
At domestic suppliers	Mil. lb	(NA)	23.7	26.4	24.5	21.5	13.7	13.9	40.4	70.7
At electric utilities	Mil. lb	(NA)	153.2	102.7	81.2	65.4	58.7	66.1	65.9	66.9
Average prices:										
Purchased imports	Dol. per lb	(NA)	20.08	12.55	10.53	8.95	10.20	13.15	11.81	11.19
Domestic purchases	Dol. per lb	(NA)	31.43	15.70	13.14	10.30	11.11	13.81	12.87	12.31
DISCHARGED COMMERCIAL REACTOR FUEL [2]										
Annual discharge	Metric tons	1,193	1,330	2,084	2,102	1,809	2,292	2,174	(NA)	(NA)
Inventory, year-end [3]	Metric tons	6,434	12,481	21,029	27,039	28,848	31,140	(NA)	(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. 969. Electric Utilities—Generation, Sales, Revenue, and Customers: 1980 to 1998

[Sales and revenue are to and from ultimate customers]

Class	Unit	1980	1985	1990	1993	1994	1995	1996	1997	1998
Generation [1]	Bil. kWh	2,286	2,470	2,808	2,883	2,911	2,995	3,077	3,123	(NA)
Sales [2]	**Bil. kWh**	**2,126**	**2,306**	**2,684**	**2,850**	**2,935**	**3,013**	**3,098**	**3,140**	**3,240**
Residential or domestic	Bil. kWh	734	793	916	994	1,008	1,043	1,082	1,076	1,128
Percent of total	Percent	34.5	34.4	34.1	34.9	34.3	34.6	34.9	34.4	34.8
Commercial [3]	Bil. kWh	524	606	739	803	820	863	887	928	969
Industrial [4]	Bil. kWh	794	820	932	957	1,008	1,013	1,030	1,033	1,040
Revenue [2]	**Bil. dol**	**95.5**	**149.2**	**176.5**	**197.9**	**202.7**	**207.7**	**212.5**	**215.1**	**218.3**
Residential or domestic	Bil. dol.	37.6	58.6	71.7	82.4	84.6	87.6	90.5	90.7	93.2
Percent of total	Percent	39.4	39.3	40.7	41.7	41.7	42.2	42.6	42.2	42.7
Commercial [3]	Bil. dol.	27.4	44.1	54.2	62.0	63.4	66.4	67.8	70.5	71.8
Industrial [4]	Bil. dol.	27.3	41.4	44.9	46.6	48.1	47.2	47.4	46.8	46.5
Ultimate customers, Dec. 31 [2]	**Million**	**92.7**	**101.6**	**110.1**	**115.2**	**116.5**	**118.3**	**120.0**	**122.1**	**124.0**
Residential or domestic	Million	82.2	89.8	97.0	101.3	102.3	103.9	105.3	107.0	108.7
Commercial [3]	Million	9.7	10.9	12.1	12.5	12.7	13.0	13.2	13.5	13.8
Industrial [4]	Million	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5
Avg. kWh used per customer	**1,000**	**23.2**	**22.9**	**24.6**	**24.9**	**25.2**	**(NA)**	**25.8**	**25.7**	**(NA)**
Residential	1,000	9.0	8.9	9.5	9.9	9.9	(NA)	10.3	10.1	(NA)
Commercial [3]	1,000	54.5	56.1	61.3	64.4	65.7	(NA)	78.0	68.7	(NA)
Avg. annual bill per customer	**Dollar**	**1,040**	**1,482**	**1,614**	**1,727**	**1,741**	**(NA)**	**1,769**	**1,761**	**(NA)**
Residential	Dollar	462	658	744	818	827	(NA)	859	849	(NA)
Commercial [3]	Dollar	2,848	4,080	4,494	4,977	5,076	(NA)	5,140	5,209	(NA)
Avg. revenue per kWh sold	**Cents**	**4.49**	**6.47**	**6.57**	**6.94**	**6.91**	**6.89**	**6.86**	**6.85**	**6.74**
Residential	Cents	5.12	7.39	7.83	8.29	8.38	8.40	8.36	8.43	8.26
Commercial [3]	Cents	5.22	7.27	7.33	7.73	7.73	7.69	7.64	7.59	7.41
Industrial [4]	Cents	3.44	5.04	4.81	4.87	4.77	4.66	4.60	4.53	4.48

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. 970. Major Investor-Owned Electric Utilities—Balance Sheet and Income Account of Privately Owned Companies: 1993 to 1998

[In millions of dollars ($193,638 represents $193,638,000,000). As of Dec. 31. 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. megawatt-hours of total sales; 100 megawatt-hours of sales for resale, 500 megawatt-hours of gross interchange out, and 500 megawatt-hours of wheeling for other]

Item	1993	1994	1995	1996	1997	1998
COMPOSITE INCOME ACCOUNTS						
Operating revenue	193,638	196,282	199,967	207,459	215,083	217,818
Electric	176,354	179,307	183,655	188,901	195,898	201,613
Gas	16,687	16,222	15,580	17,869	18,663	15,735
Other utility	597	753	731	689	522	470
Operating expenses	161,908	164,207	165,321	173,920	182,796	186,103
Electric	146,118	148,663	150,599	156,938	165,443	171,294
Operation	91,328	93,108	91,881	97,207	104,337	110,807
Maintenance	12,447	12,022	11,767	12,050	12,368	12,451
Depreciation	18,099	18,679	19,885	21,194	23,072	23,890
Taxes other than income taxes	13,040	13,275	13,519	13,569	13,612	12,836
Regulatory debits (net)	429	706	1,142	683	616	-585
Income taxes	8,297	9,626	11,480	11,195	11,862	13,078
Deferred income tax	2,993	1,832	1,474	1,617	25	-535
Investment tax credit (net)	-516	-585	-550	-577	-448	-649
Gas	15,235	14,878	14,073	16,258	16,925	14,396
Income taxes	252	465	532	224	585	668
Other	14,983	14,413	13,541	16,034	16,341	13,718
Operating income	31,730	32,074	34,646	33,539	32,286	31,715
Electric	30,236	30,645	33,057	31,963	30,454	30,319
Gas	1,452	1,344	1,507	1,612	1,737	1,339
Other utility	41	86	82	-36	95	57
Total income before interest charges	33,076	33,884	36,457	35,153	34,100	32,827
Net interest charges	14,700	14,162	14,421	13,990	14,086	13,963
Interest expense	14,567	13,915	14,170	13,646	13,768	13,654
Less allow. for borrowed funds used during const'n	555	421	435	326	331	323
Other charges, net	689	667	687	671	649	632
Net income before extraordinary charges	18,376	19,722	22,036	21,162	20,014	18,864
Less extraordinary items after taxes	484	-165	-25	-66	3,151	1,344
Net income	17,891	19,888	22,061	21,228	16,863	17,521
Dividends declared - preferred stock	1,765	1,582	1,519	1,248	1,005	756
Earnings available for common stocks	16,126	18,306	20,542	19,980	15,857	16,764
Dividends declared - common stock	15,334	15,876	16,250	16,810	17,756	17,361
Additions total earnings	296	2,063	4,282	2,193	-1,960	-17
COMPOSITE BALANCE SHEET						
Total assets and other debits	**566,641**	**574,512**	**578,934**	**581,991**	**586,241**	**598,951**
Utility plant, net	393,829	397,812	397,383	396,438	385,258	363,015
Electric utility plant, net	363,829	366,936	366,116	363,854	351,427	328,215
Electric utility plant	519,207	535,928	553,858	569,969	579,042	574,716
Construction work in progress	18,049	17,148	13,523	11,396	11,164	11,353
Less accumulated depreciation	173,427	186,140	201,265	217,510	238,779	257,854
Nuclear fuel, net	5,964	5,657	5,286	5,444	5,219	4,791
Other utility plant, net	24,036	25,219	25,981	27,140	28,613	30,009
Other property and investments	20,064	23,479	27,988	33,120	43,248	48,398
Current and accrued assets	42,410	41,263	44,140	43,515	47,639	54,491
Deferred debits	110,338	111,957	109,423	108,918	110,096	133,048
CAPITALIZATION AND LIABILITIES						
Liabilities and other credits	**566,641**	**574,512**	**578,934**	**581,991**	**586,241**	**598,951**
Capitalization	360,455	364,725	365,775	365,783	369,079	366,814
Common stock equity (end of year)	(NA)	164,483	170,497	174,325	174,467	172,351
Common stock	107,471	109,522	111,302	112,633	113,890	113,169
Retained earnings (adjusted)	52,826	54,961	59,195	61,692	60,577	59,182
Preferred stock	25,304	24,860	21,569	18,830	16,080	14,337
Long-term debt	174,854	175,382	173,708	172,627	178,532	180,126
Current liabilities and deferred credits	206,186	209,787	213,159	216,208	217,162	232,137
Other noncurrent liabilities	11,478	13,453	14,352	15,309	17,086	18,004
Current and accrued liabilities	48,879	48,035	49,929	49,342	51,594	57,743
Deferred credits	145,829	148,299	148,877	151,557	148,482	156,389
Accumulated deferred income taxes	104,964	107,055	108,615	110,537	106,394	106,550
Accumulated deferred investment tax credit	13,429	12,784	12,139	11,491	10,783	9,793
Other deferred credits (adjusted)	27,436	28,460	28,123	29,529	31,305	40,047
COMPOSITE FINANCIAL INDICATORS						
Activity:						
1. Electric fixed asset (net plant) turnover	0.48	0.49	0.50	0.52	0.56	0.61
2. Total asset turnover	0.34	0.34	0.35	0.36	0.37	0.36
Leverage:						
3. Current assets to current liabilities	0.87	0.86	0.88	0.88	0.92	0.94
4. Long term debt to capitalization	48.51	48.09	47.49	47.19	48.37	49.11
5. Preferred stock to capitalization	7.02	6.82	5.90	5.15	4.36	3.91
6. Common stock equity to capitalization	44.47	45.10	46.61	47.66	47.27	46.99
7. Total debt to total assets	32.48	32.35	31.89	31.57	32.23	32.00
8. Common stock equity to total assets	28.29	28.63	29.45	29.95	29.76	28.78
9. Interest coverage before taxes without AFUDC	2.78	3.10	3.37	3.36	3.33	3.37
Profitability:						
10. Profit margin	9.24	10.13	11.03	10.23	7.84	8.04
11. Return on average common stock equity	22.32	12.24	13.17	12.31	9.67	10.10
12. Return on investment	3.16	3.46	3.81	3.65	2.88	2.93

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

No. 971. Nonutility Electric Power Producers—Summary by Type of Fuel: 1990 to 1998

Type of fuel	1990	1991	1992	1993	1994	1995	1996	1997	1998
Installed capacity (megawatts)	45,271	49,998	56,814	60,778	68,461	70,254	73,189	74,004	98,085
Coal [1]	6,937	7,351	8,503	9,772	10,372	10,877	11,370	11,027	13,712
Petroleum [2]	1,038	1,514	1,730	2,043	2,262	2,116	2,251	2,924	2,629
Natural gas	17,430	20,694	21,542	23,463	26,925	27,906	30,166	31,092	37,325
Other gas [3]	(4)	(4)	(4)	(4)	1,130	1,217	327	35	205
Petroleum/natural gas (combined)	6,468	5,292	8,478	8,505	9,820	10,479	10,912	10,029	23,105
Hydroelectric	1,968	2,072	2,684	2,741	3,364	3,399	3,419	3,770	4,136
Geothermal	1,086	1,103	1,254	1,318	1,335	1,295	1,346	1,303	1,449
Solar	360	360	360	360	354	354	354	354	385
Wind	1,405	1,652	1,822	1,813	1,737	1,723	1,670	1,566	1,689
Wood [5]	6,049	6,708	6,805	7,046	7,416	6,885	7,263	7,282	6,887
Waste [6]	2,323	2,741	3,006	3,131	3,150	3,430	3,463	3,394	3,488
Gross generation (mil. kilowatthours)	220,058	251,747	296,001	325,226	354,925	375,901	382,423	384,496	421,364
Coal [1]	32,131	40,587	47,363	53,367	59,035	60,234	61,375	59,211	70,369
Petroleum [2]	7,330	7,814	10,963	13,364	15,069	15,049	14,959	15,930	17,533
Natural gas	116,969	131,820	158,798	174,282	179,735	196,633	198,555	207,527	238,747
Other gases [3]	(4)	(4)	(4)	(4)	12,480	13,984	14,750	11,687	8,866
Hydroelectric	8,153	8,180	9,446	11,511	13,227	14,774	16,555	17,902	14,633
Geothermal	7,235	8,014	8,578	9,749	10,122	9,912	10,198	9,382	9,882
Solar	663	779	746	897	824	824	903	893	887
Wind	2,251	2,606	2,916	3,052	3,482	3,185	3,400	3,248	3,015
Wood [5]	30,812	33,785	36,255	37,421	38,595	37,283	37,525	34,898	32,596
Waste [6]	11,688	14,475	17,352	18,325	18,797	20,231	20,412	20,246	21,086

[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. 972. Water Power—Developed and Undeveloped Capacity by Division: 1980 to 1998

[**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	1994	1995	1996	1997	1998	1980	1990	1994	1995	1996	1997	1998
United States	**64.4**	**73.0**	**74.1**	**74.2**	**74.8**	**73.5**	**73.8**	**129.9**	**73.9**	**73.5**	**71.0**	**70.0**	**64.1**	**64.1**
New England	1.5	1.9	1.9	1.9	2.0	2.0	2.0	4.7	4.4	4.4	4.4	4.4	3.9	3.9
Middle Atlantic	4.3	4.9	4.9	4.9	5.0	5.6	5.6	5.1	5.1	4.9	4.9	4.8	3.6	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	1.6	1.5	1.5
West North Central	2.8	3.1	3.1	3.1	3.0	3.0	3.0	3.4	3.1	3.1	3.1	3.0	2.8	2.8
South Atlantic	5.9	6.7	6.7	6.7	6.8	6.8	6.8	9.6	7.0	7.2	7.2	7.3	6.8	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	2.3	2.0	2.0	2.0
West South Central	2.3	2.7	2.7	2.7	2.7	2.8	2.8	4.7	4.6	4.6	4.6	4.6	4.0	4.0
Mountain	7.4	9.2	9.5	9.5	10.0	10.0	10.0	34.2	19.4	19.1	18.8	19.1	18.0	18.0
Pacific	33.7	37.5	38.2	38.3	38.3	36.2	36.5	62.9	26.2	26.1	24.0	22.9	21.5	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. 973. Solar Collector Shipments by Type, End Use, and Market Sector: 1986 to 1998

[**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]

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
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
1998	28	7,756	7,292	443	7,201	463	67	7,165	517	62

[1] Includes high temperature collectors, end uses such process heating, and utility and other market sectors not shown separately. [2] Declines between 1986 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. 974 Renewable Energy Consumption Estimates by Type: 1990 to 1999

[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	1995	1996	1997	1998	1999
Consumption, total	**6.26**	**6.96**	**7.48**	**7.36**	**6.98**	**7.37**
Residential and commercial	0.68	0.72	0.72	0.56	0.50	0.54
Biomass [1]	0.62	0.64	0.64	0.48	0.42	0.46
Geothermal energy [2]	0.01	0.01	0.01	0.01	0.02	0.02
Solar [3]	0.06	0.07	0.07	0.07	0.07	0.06
Industrial [4]	2.24	2.69	2.80	2.81	2.84	3.37
Biomass [5]	1.94	2.28	2.37	2.39	2.44	2.92
Geothermal energy [6]	0.16	0.21	0.22	0.20	0.21	0.28
Conventional hydroelectric power [7]	0.10	0.15	0.17	0.19	0.15	0.13
Solar energy	0.01	0.01	0.01	0.01	0.01	0.01
Wind energy	0.03	0.03	0.04	0.03	0.03	0.04
Transportation						
Biomass [8]	0.08	0.10	0.07	0.10	0.11	0.11
Electric utilities [9]	3.25	3.46	3.89	3.89	3.53	3.35
Biomass [5]	0.02	0.02	0.02	0.02	0.02	0.02
Geothermal energy [10]	0.19	0.12	0.12	0.12	0.11	0.04
Conventional hydroelectric power [7 11]	3.04	3.32	3.74	3.75	3.40	3.29
Solar and wind energy	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)

Z Less than 0.005 quadrillion Btu. [1] Wood. [2] Geothermal heat pump and direct use energy. [3] The solar thermal component of 0.06 quadrillion Btu for residential and commercial use is calculated by presuming an overall efficiency of 50 percent for all three categories of solar thermal collectors, a 1,500-Btu per square foot average daily insulation, and the potential thermal energy production from the 219 million square feet of thermal collectors produced between 1980 and 1999. [4] Generation of electricity by nonutility power producers is included in the industrial sector, not the electric utility sector. Covers facilities of 1 megawatt or greater capacity. [5] Wood, wood waste, wood liquors, peat, railroad ties, wood sludge, spent sulfite liquors, agricultural waste, straw, tires, fish oils, tall oil, sludge waste, waste alcohol, municipal solid waste, landfill gases, and other waste. [6] Geothermal electricity generation, heat pump, and direct use energy. [7] Hydroelectricity generated by pumped storage is not included in renewable energy. [8] Ethanol blended into motor gasoline. [9] For Btu conversion rates, see source Appendix Table 6. [10] Includes electricity from Mexico that are derived from geothermal energy. [11] Includes electricity net imports from Canada that are derived from hydroelectric power.

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

No. 975. Privately Owned Gas Utility Industry—Balance Sheet and Income Account: 1980 to 1998

[In millions of dollars (75,851 represents $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	1993	1994	1995	1996	1997	1998
COMPOSITE BALANCE SHEET									
Assets, total	**75,851**	**104,478**	**121,686**	**135,813**	**137,911**	**141,965**	**121,328**	**134,715**	**119,715**
Total utility plant	67,071	88,121	112,863	135,859	139,372	143,636	135,179	140,268	135,092
Depreciation and amortization	*26,162*	*36,377*	*49,483*	*60,152*	*61,140*	*62,723*	*58,815*	*62,554*	*61,226*
Utility plant (net)	40,909	51,744	63,380	75,707	78,232	80,912	76,364	77,714	73,866
Investment and fund accounts	15,530	23,871	23,872	23,342	22,658	26,489	13,207	22,812	12,337
Current and accrued assets	17,243	24,771	23,268	21,451	20,728	18,564	17,393	19,084	17,348
Deferred debits [1]	2,169	4,092	9,576	13,369	14,234	13,923	11,983	12,844	13,721
Liabilities, total	**75,851**	**104,478**	**121,686**	**135,813**	**137,911**	**141,965**	**121,328**	**134,775**	**119,715**
Capitalization, total	51,382	65,799	74,958	82,755	85,728	90,581	77,440	78,887	71,718
Capital stock	29,315	39,517	43,810	49,051	50,394	54,402	43,555	42,530	37,977
Long-term debts	22,067	26,282	31,148	33,693	35,296	35,548	33,644	35,971	33,386
Current and accrued liabilities	18,119	26,125	29,550	27,321	25,438	28,272	22,098	33,507	26,953
Deferred income taxes [2]	4,149	7,769	11,360	13,070	13,787	14,393	13,326	13,636	13,239
Other liabilities and credits	2,201	4,785	5,818	12,667	12,955	8,715	8,464	8,745	7,806
COMPOSITE INCOME ACCOUNT									
Operating revenues, total	**85,918**	**103,945**	**66,027**	**69,966**	**63,446**	**58,390**	**63,600**	**62,617**	**57,117**
Operating expenses [3]	*81,789*	*98,320*	*60,137*	*62,977*	*56,789*	*50,760*	*56,695*	*59,375*	*50,896*
Operation and maintenance	74,508	88,572	51,627	50,468	43,879	37,966	43,742	46,070	41,026
Federal, state, and local taxes	4,847	6,590	4,957	6,185	6,613	6,182	6,362	7,182	5,429
Operating income	4,129	5,625	5,890	6,988	6,657	7,630	6,905	3,242	6,220
Utility operating income	4,471	6,030	6,077	7,177	6,851	7,848	7,013	3,337	6,361
Income before interest charges	6,929	7,636	8,081	8,754	8,200	9,484	8,030	4,193	7,779
Net income	4,194	3,785	4,410	5,589	5,011	5,139	4,797	48	4,379
Dividends	2,564	4,060	3,191	3,149	3,928	4,037	4,138	6,258	2,263

[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. 976. Gas Utility Industry—Summary: 1980 to 1998

[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	1994	1995	1996	1997	1998
End users [1]	**1,000**	**47,223**	**49,971**	**54,261**	**57,960**	**58,728**	**59,820**	**59,802**	**60,437**
Residential	1,000	43,489	45,929	49,802	53,243	53,955	54,968	54,998	55,642
Commercial	1,000	3,498	3,816	4,246	4,474	4,530	4,616	4,593	4,595
Industrial and other	1,000	187	179	166	181	181	183	173	162
Sales [2]	**Tril. Btu [3]**	**15,413**	**12,616**	**9,842**	**9,480**	**9,094**	**9,532**	**8,913**	**8,341**
Residential	Tril. Btu	4,826	4,513	4,468	4,972	4,736	5,198	5,021	4,693
Percent of total	Percent	31.3	35.8	45.4	52.4	52.0	54.5	56.3	56.3
Commercial	Tril. Btu	2,453	2,338	2,192	2,351	2,204	2,395	2,244	2,043
Industrial	Tril. Btu	7,957	5,635	3,010	2,009	1,930	1,791	1,524	1,489
Other	Tril. Btu	177	130	171	148	224	148	124	116
Revenues [2]	**Mil. dol**	**48,303**	**63,293**	**45,153**	**49,864**	**46,381**	**51,115**	**51,517**	**46,924**
Residential	Mil. dol	17,432	26,864	25,000	30,563	28,741	32,022	33,068	30,671
Percent of total	Percent	36.1	42.4	55.4	61.3	61.9	62.6	64.2	65.4
Commercial	Mil. dol	8,183	12,722	10,604	12,254	11,410	12,726	12,666	11,189
Industrial	Mil. dol	22,215	23,086	8,996	6,475	5,652	5,821	5,284	4,678
Other	Mil. dol	473	621	553	572	579	546	498	387
Prices per mil. Btu [3]	**Dollars**	**3.13**	**5.02**	**4.59**	**5.23**	**5.10**	**5.37**	**5.78**	**5.63**
Residential	Dollars	3.61	5.95	5.60	6.14	6.06	6.17	6.59	6.54
Commercial	Dollars	3.34	5.44	4.84	5.21	5.18	5.31	5.64	5.48
Industrial	Dollars	2.79	4.10	2.99	3.17	3.00	3.32	3.53	3.28
Gas mains mileage	**1,000**	**1,052**	**1,119**	**1,207**	**1,267**	**1,262**	**1,269**	**1,258**	**1,280**
Field and gathering	1,000	84	94	90	72	62	58	46	45
Transmission	1,000	266	271	280	276	265	260	257	254
Distribution	1,000	702	754	837	919	935	952	955	981
Construction expenditures [4]	**Mil. dol**	**5,350**	**5,671**	**7,899**	**9,282**	**10,829**	**7,722**	**7,189**	**11,941**
Transmission	Mil. dol	1,583	1,562	2,886	3,065	3,384	1,316	1,334	2,892
Distribution	Mil. dol	1,869	2,577	3,714	4,550	5,448	4,234	4,404	6,852
Production and storage	Mil. dol	1,150	790	309	230	366	651	347	572

[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. 977. Gas Utility Industry—Customers, Sales, and Revenues by State: 1998

[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.	**60,437**	**55,642**	**8,341**	**4,693**	**46,924**	**30,671**	MO	1,425	1,289	186	119	1,122	772
							MT	245	217	31	20	157	102
AL	823	759	117	52	678	392	NE	504	444	80	44	392	240
AK	99	86	24	16	82	58	NV	483	454	51	29	311	203
AZ	716	674	70	31	454	268	NH	89	76	16	7	105	49
AR	618	547	80	38	430	255	NJ	2,434	2,218	489	207	2,332	1,457
CA	9,536	9,099	756	513	4,615	3,474							
							NM	496	453	57	35	270	187
CO	1,338	1,213	182	111	844	577	NY	4,379	4,050	600	358	4,615	3,214
CT	486	439	89	39	689	398	NC	876	766	140	54	860	447
DE	120	110	23	9	145	75	ND	117	102	23	11	97	52
DC	145	131	24	11	203	101	OH	3,169	2,930	408	304	2,458	1,879
FL	594	544	67	16	451	166							
							OK	956	865	118	68	597	388
GA	1,707	1,581	291	157	1,158	723	OR	538	475	77	36	421	232
HI	37	34	3	1	49	16	PA	2,467	2,274	326	216	2,387	1,725
ID	239	211	28	17	133	85	RI	228	207	28	17	233	160
IL	3,803	3,521	523	397	2,660	2,078	SC	498	443	97	27	531	216
IN	1,686	1,539	251	150	1,448	955							
							SD	150	132	24	13	126	74
IA	866	774	136	81	722	471	TN	894	797	144	57	790	369
KS	909	824	114	73	623	442	TX	3,878	3,545	509	226	2,551	1,364
KY	703	632	107	58	597	354	UT	632	589	91	59	438	315
LA	740	693	268	39	717	242	VT	32	27	8	3	42	18
ME	23	16	5	1	35	7							
							VA	915	829	123	62	876	534
MD	882	822	90	63	686	516	WA	763	685	133	63	613	346
MA	1,303	1,201	174	101	1,435	946	WV	392	357	47	33	321	237
MI	3,247	3,009	514	370	2,547	1,876	WI	1,406	1,278	256	128	1,321	777
MN	1,268	1,156	244	114	1,107	618	WY	135	120	23	13	96	57
MS	454	407	77	28	354	162							

[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).