Section 19

Energy and Utilities

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 23; on fuels, see Section 18; and on energy-related housing characteristics, see Section 20.

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 and 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 2000 for production and consumption, in that order, for various fuels: Petroleum, 5.800 and 5.341 mil. Btu per barrel; total coal, 21.072 and 20.753 mil. Btu per short ton; and natural gas (dry), 1,027 Btu per cubic foot for both. The factors for the production of nuclear power and geothermal power were 10,623 and 21,017 Btu per kilowatt-hour, respectively. The fossil fuel steam-electric power plant generation factor of 10,346 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. 889. Utilities—Establishments, Revenue, Payroll, and Employees by Kind of Business (NAICS Basis): 1997

Kind of business	NAICS code [1]	Establishments (number)	Revenue		Annual payroll		Paid employee for pay period including March 12 (number)
			Total (mil. dol.)	Per paid employee (dol.)	Total (mil. dol.)	Per paid employee (dol.)	
Utilities	**22**	**15,513**	**411,713**	**585,899**	**36,595**	**52,077**	**702,703**
Electric power generation, transmission, & distribution	2211	7,935	269,095	476,676	30,440	53,921	564,525
Electric power generation	22111	1,745	73,375	493,492	8,369	56,289	148,686
Fossil fuel electric power generation	221112	1,009	48,324	515,374	5,049	53,843	93,765
Nuclear electric power generation	221113	67	13,967	406,231	2,202	64,045	34,381
Other electric power generation	221119	316	8,011	608,723	725	55,069	13,160
Electric power transmission, control & distribution	22112	6,190	195,720	470,663	22,070	53,074	415,839
Electric bulk power transmission & control	221121	120	956	395,361	116	47,852	2,418
Electric power distribution	221122	6,070	194,764	471,103	21,955	53,105	413,421
Other combination utilities	2211223	30	428	630,811	52	76,771	678
Natural gas distribution	2212	2,747	136,995	1,331,629	5,110	49,666	102,878
Natural gas transmission & distribution	2212101	713	18,267	629,034	1,534	52,838	29,039
Natural gas distribution	2212102	1,682	87,105	1,387,135	2,955	47,059	62,795
Mixed, manu., or LP gas pro &/or dist.	2212103	86	(D)	(NA)	(D)	(NA)	(2)
Electric & other serv. combined (natural gas distribution)	2212104	145	28,110	4,193,063	413	61,565	6,704
Gas & other serv. combined (natural gas distribution)	2212105	119	2,853	915,151	149	47,705	3,117
Water, sewage, & other systems	2213	4,831	5,623	159,284	1,045	29,614	35,300
Water supply & irrigation systems	22131	4,052	4,454	159,447	825	29,550	27,933
Sewage treatment facilities	22132	696	596	106,399	139	24,816	5,600
Steam & air-conditioning supply	22133	83	573	324,314	81	45,838	1,767

D Withheld to avoid disclosing data of individual companies; data are included in higher level totals. NA Not available.
[1] North American Industry Classification System, 1997; see text, Section 15, Business Enterprise. [2] 1,000 to 2,499 employees.

Source: U.S. Census Bureau, *1997 Economic Census, Utilities,* Series EC97T22A-US, issued December 1999.

No. 890. Private Utilities—Employees, Annual Payroll, and Establishments by Industry: 1999

[Excludes government employees, railroad employees, self-employed persons, etc. See "General Explanation" in source for definitions and statement on reliability of data. An *establishment* is a single physical location where business is conducted or where services or industrial operations are performed]

Year and industry	NAICS code [1]	Number of employees [2]	Annual payroll (mil. dol.)	Average payroll per employee (dol.)	Establishment by employment size-class				
					Total	Under 20 employees	20 to 99 employees	100 to 499 employees	500 and over employees
Utilities, total	**22**	**667,062**	**39,355**	**58,997**	**16,578**	**11,510**	**3,712**	**1,157**	**199**
Electric power generation, transmission and distribution	2211	533,214	32,443	60,844	8,811	4,859	2,865	912	175
Electric power generation	22111	147,282	9,454	64,187	1,991	1,125	537	275	54
Hydroelectric power generation	221111	10,573	559	52,912	461	368	73	18	2
Fossil fuel electric power generation	221112	87,237	5,343	61,246	1,072	472	363	222	15
Nuclear electric power generation	221113	34,901	2,611	74,808	73	17	7	18	31
Other electric power generation	221119	14,571	940	64,536	385	268	94	17	6
Electric pwr transmsn, control & distribution	22112	385,932	22,989	59,567	6,820	3,734	2,328	637	121
Electric bulk power transmission & control	221121	5,107	323	63,152	153	101	39	12	1
Electric power distribution	221122	380,825	22,666	59,519	6,667	3,633	2,289	625	120
Natural gas distribution	2212	96,953	5,658	58,354	2,851	2,029	595	205	22
Water, sewage & other systems	2213	36,895	1,255	34,010	4,916	4,622	252	40	2
Water supply & irrigation systems	22131	29,996	1,016	33,875	4,129	3,918	175	34	2
Sewage treatment facilities	22132	5,270	161	30,583	715	664	46	5	-
Steam & air-conditioning supply	22133	1,629	78	47,593	72	40	31	1	-

- Represents zero. [1] North American Industry Classification System, 1977. [2] Covers full- and part-time employees who are on the payroll in the pay period including March 12.

Source: U.S. Census Bureau, *County Business Patterns,* annual. See also <http://www.census.gov/prod/2001pubs/cbp99/cbp99-1.pdf> (issued April 2001).

No. 891. Energy Supply and Disposition by Type of Fuel: 1960 to 1999

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

Year	Production									Net trade, total [1]	Consumption					
						Renewable energy										
	Total [2]	Crude oil [3]	Natural gas	Coal	Nuclear power	Total [2]	Hydro-electric power	Biofuel [4]	Solar energy		Total [2]	Petro-leum [5]	Natural gas [6]	Coal	Nuclear power	Renewable energy, total
1960	41.49	14.93	12.66	10.82	(Z)	2.93	1.61	1.32	-	-2.75	43.80	19.92	12.39	9.84	0.01	2.98
1965	49.34	16.52	15.78	13.06	(Z)	3.40	2.06	1.34	-	-4.07	52.68	23.25	15.77	11.58	0.04	3.40
1970	63.50	20.40	21.67	14.61	0.24	4.07	2.63	1.43	-	-5.73	67.86	29.52	21.80	12.27	0.24	4.09
1971	62.72	20.03	22.28	13.19	0.41	4.27	2.82	1.43	-	-7.40	69.31	30.56	22.47	11.60	0.41	4.30
1972	63.92	20.04	22.21	14.09	0.58	4.40	2.86	1.50	-	-9.32	72.76	32.95	22.70	12.08	0.58	4.48
1973	63.58	19.49	22.19	13.99	0.91	4.43	2.86	1.53	-	-12.68	75.81	34.84	22.51	12.97	0.91	4.58
1974	62.37	18.58	21.21	14.07	1.27	4.77	3.18	1.54	-	-12.19	74.08	33.46	21.73	12.66	1.27	4.90
1975	61.36	17.73	19.64	14.99	1.90	4.72	3.16	1.50	-	-11.75	72.04	32.73	19.95	12.66	1.90	4.79
1976	61.60	17.26	19.48	15.65	2.11	4.77	2.98	1.71	-	-14.65	76.07	35.18	20.35	13.58	2.11	4.86
1977	62.05	17.45	19.57	15.76	2.70	4.25	2.33	1.84	-	-18.02	78.12	37.12	19.93	13.92	2.70	4.43
1978	63.14	18.43	19.49	14.91	3.02	5.04	2.94	2.04	-	-17.32	80.12	37.97	20.00	13.77	3.02	5.24
1979	65.95	18.10	20.08	17.54	2.78	5.16	2.93	2.15	-	-16.75	81.04	37.12	20.67	15.04	2.78	5.38
1980	67.24	18.25	19.91	18.60	2.74	5.49	2.90	2.48	-	-12.25	78.43	34.20	20.39	15.42	2.74	5.71
1981	67.01	18.15	19.70	18.38	3.01	5.47	2.76	2.59	-	-9.64	76.57	31.93	19.93	15.91	3.01	5.82
1982	66.57	18.31	18.32	18.64	3.13	5.99	3.27	2.62	-	-7.46	73.44	30.23	18.51	15.32	3.13	6.29
1983	64.11	18.39	16.59	17.25	3.20	6.49	3.53	2.83	-	-8.31	73.32	30.05	17.36	15.89	3.20	6.86
1984	68.83	18.85	18.01	19.72	3.55	6.43	3.39	2.88	-	-8.96	76.97	31.05	18.51	17.07	3.55	6.85
1985	67.72	18.99	16.98	19.33	4.15	6.03	2.97	2.86	-	-7.87	76.78	30.92	17.83	17.48	4.15	6.46
1986	67.18	18.38	16.54	19.51	4.47	6.13	3.07	2.84	-	-10.38	77.07	32.20	16.71	17.26	4.47	6.51
1987	67.76	17.68	17.14	20.14	4.91	5.69	2.64	2.82	-	-11.91	79.63	32.87	17.74	18.01	4.91	6.17
1988	69.03	17.28	17.60	20.74	5.66	5.49	2.33	2.94	-	-13.15	83.07	34.22	18.55	18.85	5.66	5.82
1989 [7]	69.46	16.12	17.85	21.35	5.68	6.32	2.86	3.05	0.06	-14.19	84.59	34.21	19.38	18.93	5.68	6.47
1990	70.85	15.57	18.36	22.46	6.16	6.16	3.05	2.67	0.06	-14.08	84.19	33.55	19.30	19.10	6.16	6.26
1991	67.51	15.70	18.23	21.59	6.58	6.15	3.02	2.68	0.07	-13.34	84.06	32.85	19.61	18.77	6.58	6.37
1992	70.06	15.22	18.38	21.63	6.61	5.90	2.62	2.83	0.07	-14.62	85.51	33.53	20.13	19.16	6.61	6.17
1993	68.37	14.49	18.58	20.25	6.52	6.15	2.89	2.78	0.07	-17.22	87.31	33.84	20.83	19.78	6.52	6.42
1994	70.83	14.10	19.35	22.11	6.84	6.08	2.69	2.91	0.07	-18.66	89.23	34.67	21.29	19.96	6.84	6.39
1995	71.29	13.89	19.10	22.03	7.18	6.68	3.21	3.04	0.07	-18.00	90.94	34.55	22.16	20.02	7.18	6.96
1996	72.58	13.72	19.36	22.68	7.17	7.15	3.59	3.10	0.08	-19.33	93.91	35.76	22.56	20.94	7.17	7.48
1997	72.53	13.66	19.39	23.21	6.68	7.14	3.72	2.98	0.07	-20.94	94.32	36.27	22.53	21.44	6.68	7.36
1998	72.55	13.24	19.29	23.72	7.16	6.78	3.35	2.99	0.07	-22.51	94.57	36.93	21.92	21.59	7.16	6.98
1999	72.52	12.54	19.30	23.33	7.73	7.18	3.23	3.51	0.08	-23.10	96.60	37.71	22.10	21.70	7.73	7.37

- Represents or rounds to zero. Z Less than 50 trillion. [1] Exports minus imports. [2] Includes types not shown separately. [3] Includes lease condensate. [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] Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel. [6] Includes supplemental gaseous fuels. [7] 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.

Source: U.S. Energy Information Administration, *Annual Energy Review* and Internet site <http://www.eia.doe.gov/pub/pdf/multi.fuel/038499.pdf> (released July 2000).

No. 892. Energy Supply and Disposition by Type of Fuel—Estimates, 1998 and 1999, and Projections, 2005 to 2020

[**Quadrillion Btu (73.10 represents 73,100,000,000,000,000) per year.** Projections are "reference" or mid-level forecasts. See report for methodology and assumptions used in generating projections]

Type of fuel	1998	1999	Projections 2005	2010	2015	2020
Production, total	**73.10**	**73.35**	**77.16**	**79.85**	**83.10**	**86.30**
Crude oil and lease condensate	13.19	12.45	11.96	10.90	10.76	10.69
Natural gas plant liquids	2.49	2.62	3.03	3.33	3.73	4.10
Natural gas, dry	19.19	19.16	21.35	23.74	26.92	29.79
Coal	23.76	23.09	25.21	26.06	26.42	26.95
Nuclear power	7.19	7.79	7.90	7.69	6.82	6.13
Renewable energy	6.62	6.58	7.13	7.82	8.12	8.31
Other	0.65	1.65	0.57	0.3	0.32	0.34
Imports, total	**26.69**	**27.35**	**33.91**	**38.14**	**41.44**	**44.64**
Crude oil [1]	18.90	18.96	23.13	25.15	25.94	26.44
Petroleum products [2]	3.99	4.14	4.81	6.49	8.46	10.69
Natural gas [3]	3.22	3.63	4.91	5.61	6.17	6.58
Other imports [3]	0.58	0.62	1.06	0.89	0.88	0.94
Exports, total	**4.09**	**3.62**	**3.64**	**3.67**	**3.72**	**3.95**
Petroleum [4]	1.94	1.98	1.81	1.78	1.83	1.91
Natural gas	0.16	0.17	0.33	0.43	0.53	0.63
Coal	1.99	1.48	1.51	1.46	1.35	1.41
Consumption, total	**94.84**	**96.14**	**107.03**	**114.14**	**120.75**	**127.03**
Petroleum products [5]	37.16	38.03	41.41	44.41	47.50	50.59
Natural gas	21.96	21.95	25.88	28.75	32.39	35.57
Coal	21.61	21.43	24.15	25.15	25.68	26.20
Nuclear power	7.19	7.79	7.90	7.69	6.82	6.13
Renewable energy/other [6]	6.92	6.93	7.69	8.14	8.36	8.54
Net imports of petroleum	**20.95**	**21.12**	**26.13**	**29.86**	**32.57**	**35.22**
Prices (1999 dollars per unit):						
World oil price (dol. per brl)	12.02	17.35	20.83	21.37	21.89	22.41
Gas wellhead price (dol. per mcf)	2.02	2.08	2.49	2.69	2.83	3.13
Coal minemouth price (dol. per ton)	18.02	16.98	14.68	13.83	13.38	12.70
Average electric price (cents per kWh)	6.8	6.7	6.2	5.9	5.9	6.0

[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, 2001*. See also <http://www.eia.doe.gov/oiaf/aeo/pdf/0383(2001).pdf> (released December 2000).

No. 893. 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	Industrial and miscellaneous	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.* See also <http://www.eia.doe.gov/pub/pdf/multi.fuel/038499.pdf> (released July 2000).

No. 894. Energy Consumption—End-Use Sector and Selected Source by State: 1999

[In trillions of Btu (95,682 represents 95,682,000,000,000,000), except as indicated]

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	**95,682**	**351**	**18,382**	**15,059**	**[3]35,917**	**26,325**	**37,960**	**22,295**	**20,498**	**3,449**	**7,736**
Alabama	2,005	459	341	226	977	461	551	345	855	80	328
Alaska	695	1,122	48	63	386	198	253	420	11	9	-
Arizona	1,220	255	279	267	222	453	497	163	404	104	323
Arkansas	1,204	472	193	124	589	297	384	266	267	28	137
California	8,375	253	1,416	1,237	2,824	2,899	3,383	2,182	64	425	355
Colorado	1,156	285	261	255	273	366	426	318	355	17	-
Connecticut	839	256	245	197	162	235	440	135	-	14	135
Delaware	279	370	56	45	107	71	141	58	36	-	-
District of Columbia	170	327	34	106	4	27	34	33	-	-	-
Florida	3,853	255	1,018	810	680	1,346	1,912	542	672	2	335
Georgia	2,798	359	553	416	957	871	1,044	341	790	28	334
Hawaii	241	204	23	25	71	122	214	3	3	1	-
Idaho	518	414	96	87	210	126	170	72	8	140	-
Illinois	3,883	320	897	722	1,273	991	1,340	1,058	837	2	868
Indiana	2,736	460	484	301	1,306	645	899	577	1,451	4	-
Iowa	1,122	391	223	159	463	278	419	236	416	10	39
Kansas	1,050	396	201	169	392	288	437	302	329	-	97
Kentucky	1,830	462	316	219	851	444	726	220	885	27	-
Louisiana	3,615	827	325	237	2,249	805	1,452	1,558	228	8	139
Maine	529	422	98	58	260	113	250	6	3	81	-
Maryland	1,378	267	359	337	277	405	584	201	304	15	141
Massachusetts	1,569	254	412	325	391	441	639	356	13	15	48
Michigan	3,240	328	744	568	1,083	845	1,098	930	823	11	155
Minnesota	1,675	351	340	218	618	500	661	346	336	59	142
Mississippi	1,209	437	203	146	451	409	483	346	138	-	90
Missouri	1,768	323	432	334	380	623	781	270	686	18	91
Montana	412	467	62	48	196	107	174	64	174	143	-
Nebraska	602	361	130	111	166	194	246	121	196	18	107
Nevada	615	340	122	97	198	198	221	157	180	29	-
New Hampshire	335	279	82	56	97	101	188	21	35	25	92
New Jersey	2,589	318	540	541	645	863	1,236	641	68	[4]-1	308
New Mexico	635	365	93	106	202	234	257	225	298	3	-
New York	4,283	235	1,092	1,216	995	980	1,653	1,251	188	265	393
North Carolina	2,447	320	563	440	754	691	937	229	708	40	399
North Dakota	366	577	54	43	186	82	123	59	412	28	-
Ohio	4,323	384	867	632	1,855	969	1,340	878	1,379	4	175
Oklahoma	1,378	410	259	198	518	403	500	543	334	32	-
Oregon	1,109	335	238	191	352	328	392	219	39	475	-
Pennsylvania	3,716	310	859	583	1,290	984	1,385	696	1,143	16	756
Rhode Island	261	264	66	52	77	66	99	86	(Z)	10	-
South Carolina	1,493	384	288	210	618	376	467	163	403	7	540
South Dakota	239	326	53	39	62	84	115	36	46	71	-
Tennessee	2,071	378	442	328	711	590	713	286	626	74	289
Texas	11,501	574	1,323	1,147	6,482	2,549	5,565	3,982	1,535	13	391
Utah	694	326	128	120	235	211	262	169	382	13	-
Vermont	165	278	43	29	40	53	85	8	2	61	43
Virginia	2,227	324	494	463	614	656	864	275	402	-6	301
Washington	2,241	389	436	332	856	617	878	277	96	988	65
West Virginia	735	407	142	101	311	182	220	147	977	10	-
Wisconsin	1,811	345	376	285	717	432	668	379	472	23	122
Wyoming	422	879	36	42	224	120	156	102	495	12	-

- Represents zero. Z Less than 0.05 trillion Btu. [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 57.7 trillion Btu of net imports of coal coke not allocated [4] Minus sign (-) indicates when amount of energy expended exceeds amount of energy consumed.

Source: U.S. Energy Information Administration, *State Energy Data Report, 1999* annual. See also <http://eia.doe.gov/pub/state.data/pdf/sedr.pdf> (released May 2001).

No. 895. 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	1994	1995	1996	1997	1998	1999
Consumption, total	**6.26**	**6.39**	**6.96**	**7.45**	**7.37**	**6.99**	**7.37**
Conventional hydroelectric power	3.14	2.97	3.47	3.92	3.94	3.55	3.42
Geothermal energy	0.36	0.40	0.34	0.35	0.33	0.34	0.33
Biomass	2.67	2.91	3.04	3.10	2.98	2.99	3.51
Solar energy	0.06	0.07	0.07	0.08	0.07	0.07	0.08
Wind energy	0.03	0.04	0.03	0.04	0.03	0.03	0.04
Residential and commercial	0.68	0.66	0.72	0.72	0.56	0.50	0.54
Biomass [1]	0.62	0.58	0.64	0.64	0.48	0.42	0.46
Geothermal energy [2]	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Solar [3]	0.06	0.06	0.07	0.07	0.07	0.07	0.06
Industrial [4]	2.24	2.61	2.69	2.80	2.81	2.84	3.37
Biomass [5]	1.94	2.21	2.28	2.37	2.39	2.44	2.92
Geothermal energy [6]	0.16	0.21	0.21	0.22	0.20	0.21	0.28
Conventional hydroelectric power [7]	0.10	0.14	0.15	0.17	0.19	0.15	0.13
Solar energy	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Wind energy	0.03	0.04	0.03	0.04	0.03	0.03	0.04
Transportation:							
Biomass [8]	0.08	0.10	0.10	0.07	0.10	0.11	0.11
Electric utilities [9]	3.25	3.02	3.46	3.89	3.89	3.53	3.35
Biomass [5]	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Geothermal energy [10]	0.19	0.17	0.12	0.12	0.12	0.11	0.04
Conventional hydroelectric power [7, 11]	3.04	2.83	3.32	3.74	3.75	3.40	3.29
Solar and wind energy	(Z)	(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 insolation, 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. [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 2000,* Series DOE/EIA-0603 (2000).

No. 896. 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. See also <http://tonto.eia.doe.gov/FTPROOT/multifuel/037697.pdf> (released July 2000).

No. 897. Energy Expenditures—End-Use Sector and Selected Source by State: 1997

[**In millions of dollars ($567,318 represents $567,318,000,000).** 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	End-use sector					Source			
	Total [1]	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	1,521	252	26	485
AZ	8,574	2,125	1,712	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	23,854	25,651	8,879	87	21,568
CO	6,881	1,563	1,251	1,013	3,054	3,522	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	351	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	1,206	12,588
GA	15,642	3,906	2,702	3,006	6,028	7,018	1,995	1,234	6,484
HI	2,288	417	415	482	974	1,338	42	6	1,152
ID	2,550	466	338	608	1,139	1,471	226	13	821
IL	25,089	7,065	4,815	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	4,443
ME	3,158	915	487	654	1,103	1,923	44	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	392	3,090
MS	5,963	1,334	867	1,276	2,486	3,092	749	205	2,326
MO	11,533	2,996	1,940	1,670	4,927	5,884	1,616	635	4,002
MT	2,171	403	290	490	989	1,290	258	113	611
NE	3,814	831	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	818	512	324	872	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	3,428	658	653	493	1,623	1,824	512	385	1,173
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	875	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	10,158
RI	2,044	669	443	268	664	941	473	(Z)	716
SC	8,177	1,993	1,167	2,133	2,885	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	602	1,849	2,126	529	374	1,042
VT	1,368	429	239	187	514	794	40	(Z)	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	1,076	250	389	499

Z Less than $500,000. [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, 1997,* Series DOE/EIA-0376(97). See also <http://www.eia.doe.gov/pub/state.prices/pdf/seper.pdf> (released July 2000).

No. 898. 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. 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	1997
CONSUMPTION							
Total	**Quad. Btu**	**9.74**	**8.62**	**9.04**	**9.13**	**9.22**	**10.25**
Avg. per household	Mil. Btu	126	103	105	101	98	102
Natural gas	Quad. Btu	5.31	4.77	4.98	4.83	4.86	5.28
Electricity	Quad. Btu	2.42	2.42	2.48	2.76	3.03	3.54
Fuel oil, kerosene	Quad. Btu	1.71	1.14	1.26	1.22	1.04	1.07
Liquid petroleum gas	Quad. Btu	0.31	0.29	0.31	0.32	0.28	0.36
EXPENDITURES							
Total	**Bil. dol.**	**63.2**	**87.8**	**97.0**	**97.7**	**110.2**	**135.79**
Avg. per household	Dollars	(NA)	(NA)	(NA)	1,080	1,172	1,338
Natural gas	Bil. dol.	17.8	27.1	29.8	26.1	27.3	35.8
Electricity	Bil. dol.	32.6	48.4	54.5	61.6	71.5	88.3
Fuel oil, kerosene	Bil. dol.	10.7	9.6	9.6	7.2	8.3	7.6
Liquid petroleum gas	Bil. dol.	2.1	2.7	3.1	2.8	3.1	4.0
AVERAGE PRICE							
Total	**Dol./mil. Btu**	**6.49**	**10.18**	**10.73**	**10.71**	**12.00**	**13.25**
Natural gas	Dol./mil. Btu	3.36	5.67	5.97	5.41	5.60	6.78
Electricity	Dol./mil. Btu	13.46	19.98	21.94	22.34	23.60	24.97
Fuel oil, kerosene	Dol./mil. Btu	6.29	8.42	7.64	5.89	7.90	15.56
Liquid petroleum gas	Dol./mil. Btu	6.71	9.42	9.91	8.91	11.20	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 to 1997, *Household Energy Consumption and Expenditures,* 1997.

No. 899. Manufacturing Energy Consumption for All Purposes by Type of Fuel and Major Industry Group: 1998

[**In trillions of Btu (23,783 represents 23,783,000,000,000).** Estimates represented consumption of energy for all purposes (First Use) represents unduplicated demand for energy by manufacturers. "First Use" is all energy produced offsite, all energy produced onsite, either directly from captive minesand wells or as byproducts from nonenergy materials (such as sawdust from furniture production, hydrogen from electrolysis of brine, nut shells from peanut processing). Based on the Manufacturing Energy Consumption Survey and subject to sampling variability]

Industry	NAICS [1] code	Total	Net electricity [2]	Residual fuel oil	Distillate fuel oil [3]	Natural gas [4]	LPG and NGL [5]	Coal	Coke and breeze	Other [6]
All industries, total	**(X)**	**23,783**	**3,035**	**406**	**142**	**7,426**	**1,882**	**1,814**	**461**	**8,967**
Food and kindred products	311	1,044	213	14	16	568	5	129	2	97
Beverage and tobacco products	312	108	24	2	2	45	1	29	-	4
Textile mills	313	256	102	12	4	103	2	20	-	14
Textile product mills	314	50	18	3	(S)	25	(Z)	3	-	(Z)
Apparel	315	48	18	2	1	23	1	1	-	4
Leather and allied products	316	8	3	(Z)	(Z)	4	(Z)	-	-	(Z)
Wood products	321	509	72	1	13	73	4	2	-	343
Paper	322	2,733	240	151	9	586	5	277	-	1,465
Printing and related support	323	98	51	(Z)	(Z)	44	1	(Z)	-	2
Petroleum and coal products	324	7,320	126	72	28	1,007	39	12	-	6,082
Petroleum refineries	324110	7,130	118	70	4	948	33	(Z)	-	5,957
Chemicals	325	6,064	577	98	10	2,709	1,796	300	7	677
Petrochemicals	325110	723	8	-	(Z)	(D)	222	(D)	-	(D)
Other basic organic chemicals	325199	1,740	73	3	(D)	782	639	(D)	-	201
Plastics materials and resins	325211	1,067	66	2	1	259	675	17	(Z)	60
Nitrogenous fertilizers	325311	592	13	-	(Z)	572	(Z)	-	-	6
Plastics and rubber products	326	328	183	5	1	126	5	3	-	5
Nonmetallic mineral products	327	979	134	4	17	444	3	284	11	82
Primary metals	331	2,560	545	30	9	933	3	715	437	82
Iron and steel mills	331111	1,584	158	29	5	494	(Z)	680	388	22
Alumina and aluminum	3313	490	246	(Z)	1	189	1	2	2	49
Primary aluminum	331312	254	196	(Z)	(Z)	(D)	(Z)	(D)	-	41
Fabricated metal products	332	445	176	2	6	241	5	3	3	10
Machinery	333	217	96	1	3	99	3	6	-	7
Computer and electronic products	334	205	137	1	1	64	(Z)	(Z)	-	1
Electrical equipment, appliances, and component	335	143	55	1	1	53	2	1	(Z)	30
Transportation equipment	336	492	195	5	15	212	4	29	1	31
Furniture and related products	337	88	30	(Z)	1	27	1	2	-	28
Miscellaneous	339	89	40	1	2	40	1	(Z)	-	4

- 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] North American Industrial Classification System; see text, Section 15, Business Enterprise. [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] Liquid petroleum gas and natural gas liquids. [6] 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, <http://www.eia.doe.gov/emeu/mecs/mecs98/datatables/contents.html> (accessed 22 January 2001).

No. 900. 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 20, 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.* New data for 1999 are scheduled to be available in the fall of 2001.

No. 901. Fossil Fuel Prices in Current and Constant (1996) Dollars: 1980 to 1999

[**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	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998	1999
CURRENT DOLLARS											
Composite [1]	2.04	2.51	1.84	1.66	1.67	1.53	1.47	1.82	1.81	1.41	1.63
Crude oil	3.72	4.15	3.45	2.76	2.46	2.27	2.52	3.18	2.97	1.87	2.68
Natural gas	1.45	2.26	1.55	1.57	1.84	1.67	1.40	1.96	2.10	1.75	1.86
Bituminous coal [2]	1.10	1.15	1.00	0.97	0.93	0.91	0.88	0.87	0.85	0.83	0.83
CONSTANT (1996) DOLLARS											
Composite [1]	3.58	3.41	2.13	1.80	1.78	1.59	1.50	1.82	1.77	1.36	1.55
Crude oil	6.52	5.64	3.99	3.00	2.61	2.37	2.57	3.18	2.92	1.82	2.56
Natural gas	2.54	3.06	1.79	1.71	1.96	1.74	1.43	1.96	2.06	1.70	1.78
Bituminous coal [2]	1.93	1.56	1.15	1.06	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.* See also <http://www.eia.doe.gov/pub/pdf/multi.fuel/038499.pdf> (released July 2000).

No. 902. Energy Imports and Exports by Type of Fuel: 1980 to 2000

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

Type of fuel	1980	1985	1990	1993	1994	1995	1996	1997	1998	1999	2000
Net imports, total [1]	**12.25**	**7.87**	**14.09**	**17.22**	**18.65**	**18.03**	**19.35**	**20.94**	**22.47**	**23.74**	**24.42**
Coal	-2.39	-2.39	-2.70	-1.76	-1.66	-2.08	-2.17	-2.01	-1.87	-1.30	-1.21
Natural gas (dry)	0.96	0.90	1.46	2.25	2.52	2.74	2.85	2.90	3.06	3.50	3.57
Petroleum	13.50	8.95	15.29	16.40	17.26	16.89	18.23	19.64	20.94	21.18	21.63
Other [2]	0.18	0.41	0.03	0.32	0.53	0.47	0.45	0.40	0.34	0.36	0.43
Imports, total	**15.97**	**12.10**	**18.95**	**21.50**	**22.73**	**22.57**	**24.01**	**25.51**	**26.86**	**27.55**	**28.52**
Coal	0.03	0.05	0.07	0.20	0.22	0.24	0.20	0.19	0.22	0.23	0.31
Natural gas (dry)	1.01	0.95	1.55	2.40	2.68	2.90	3.00	3.06	3.22	3.66	3.81
Petroleum	14.66	10.61	17.12	18.51	19.24	18.88	20.29	21.74	22.91	23.13	23.78
Other [2]	0.28	0.49	0.22	0.39	0.58	0.55	0.52	0.52	0.50	0.52	0.61
Exports, total	**3.72**	**4.23**	**4.87**	**4.28**	**4.08**	**4.54**	**4.66**	**4.58**	**4.39**	**3.81**	**4.10**
Coal	2.42	2.44	2.77	1.96	1.88	2.32	2.37	2.19	2.09	1.53	1.53
Natural gas (dry)	0.05	0.06	0.09	0.14	0.16	0.16	0.16	0.16	0.16	0.16	0.24
Petroleum	1.16	1.66	1.82	2.12	1.99	1.99	2.06	2.10	1.97	1.95	2.15
Other [2]	0.09	0.08	0.18	0.06	0.05	0.07	0.07	0.12	0.16	0.17	0.18

[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.* See also <http://www.eia.doe.gov/pub/pdf/multi.fuel/038400.pdf>. (released August 2001).

No. 903. U.S. Foreign Trade in Selected Mineral Fuels: 1980 to 1998

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

Mineral fuel	Unit	1980	1985	1990	1993	1994	1995	1996	1997	1998
Natural gas:										
Imports	Bil. cu. ft.	985	950	1,532	2,350	2,624	2,841	2,937	2,994	3,152
Exports	Bil. cu. ft.	49	55	86	140	162	154	153	157	159
Net trade	Bil. cu. ft.	-936	-894	-1,446	-2,210	-2,462	-2,687	-2,784	-2,837	-2,993
Crude oil:										
Imports [1]	Mil. bbl.	1,926	1,168	2,151	2,477	2,578	2,639	2,740	3,002	3,178
Exports	Mil. bbl.	105	75	40	36	36	35	40	39	40
Net trade	Mil. bbl.	-1,821	-1,093	-2,112	-2,441	-2,542	-2,604	-2,700	-2,963	-3,138
Petroleum products:										
Imports	Mil. bbl.	603	681	775	669	706	586	719	707	731
Exports	Mil. bbl.	94	211	273	330	308	312	318	318	327
Net trade	Mil. bbl.	-509	-470	-502	-339	-398	-274	-402	-389	-404
Coal:										
Imports	1,000 sh. tons.	1,194	1,952	2,699	7,309	8,870	9,473	8,115	7,487	8,724
Exports	1,000 sh. tons.	91,742	92,680	105,804	74,519	71,359	88,547	90,473	83,545	78,048
Net trade	1,000 sh. tons.	90,548	90,728	103,105	67,210	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. 904. Crude Oil Imports Into the United States by Country of Origin: 1980 to 2000

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

Country of origin	1980	1985	1990	1993	1994	1995	1996	1997	1998	1999	2000
Total imports	**1,921**	**1,168**	**2,151**	**2,477**	**2,578**	**2,639**	**2,748**	**3,002**	**3,178**	**3,187**	**3,320**
OPEC, [1] total	**1,410**	**479**	**1,283**	**1,317**	**1,307**	**1,303**	**1,258**	**1,378**	**1,522**	**1,543**	**1,664**
Algeria	166	31	23	9	8	10	3	2	4	9	-
Iraq	10	17	188	-	-	-	-	33	123	265	227
Kuwait [2]	10	1	29	126	112	78	86	92	109	90	96
Qatar	8	-	1	-	-	-	-	-	1	-	-
Saudi Arabia [2]	456	48	436	468	473	460	457	472	512	506	558
United Arab Emirates	63	13	3	4	4	2	1	-	1	-	1
Indonesia	115	107	36	24	34	23	16	19	18	25	13
Nigeria	307	102	286	264	228	227	218	252	251	227	320
Venezuela	57	112	243	369	377	420	477	509	503	420	448
Non-OPEC, [3] total	**511**	**689**	**869**	**1,160**	**1,271**	**1,336**	**1,490**	**1,624**	**1,656**	**1,643**	**1,657**
Canada	73	171	235	329	359	380	394	437	462	430	493
Ecuador [4]	6	20	14	28	33	35	35	42	36	42	46
Gabon [5]	9	19	23	55	71	84	67	84	76	61	52
Malaysia	(NA)	(NA)	(NA)	4	2	2	2	3	9	8	11
Mexico	185	261	251	315	343	375	442	496	482	458	480
'Norway	53	11	35	50	69	94	107	105	81	96	111
Trinidad and Tobago	42	36	28	20	23	23	21	20	19	15	20
United Kingdom	63	101	57	114	145	124	79	62	59	104	106

- Represents zero. NA Not available. [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] Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in Saudi Arabia. [3] Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC. [4] Ecuador withdrew from OPEC on Dec. 31, 1992; therefore, it is included under OPEC for the period 1980 to 1992. [5] Gabon withdrew from OPEC on Dec. 31, 1994; therefore, it is included under OPEC for the period 1980 to 1994.

Source: U.S. Energy Information Administration, *Petroleum Supply Annual,* Vol. I.

No. 905. Crude Oil and Refined Products—Summary: 1973 to 2000

[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			Domestic demand	Imports	Exports		Total	Strategic reserve
			Total [1]	Strategic reserve	Exports						
1973	12,431	9,208	3,244	(X)	2	17,308	3,012	229	6,256	242	(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)
1980	13,481	8,597	5,263	44	287	17,056	1,646	258	6,909	466	108
1985	12,002	8,971	3,201	118	204	15,726	1,866	577	5,067	814	493
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	14,804	5,881	8,731	6	118	19,519	2,122	822	10,852	852	567
2000	15,077	5,839	8,914	8	58	19,484	2,146	974	11,061	829	541

- 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,* January 2001 issue.

No. 906. Petroleum and Coal Products Corporations—Sales, Net Profit, and Profit Per Dollar of Sales: 1990 to 2000

[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	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Sales	Bil. dol.	318.5	282.2	278.0	266.1	268.2	283.1	323.5	320.0	250.4	277.0	416.3
Net profit:												
Before income taxes	Bil. dol.	23.1	12.1	2.0	14.9	17.2	16.5	32.6	36.8	9.7	20.3	57.2
After income taxes	Bil. dol.	17.8	10.8	3.1	13.0	14.9	13.9	26.6	29.4	8.3	17.2	43.0
Depreciation[1]	Bil. dol.	18.7	18.0	18.3	17.4	17.1	16.7	15.9	15.6	14.7	13.5	14.5
Profits per dollar of sales:												
Before income taxes	Cents	7.3	4.3	0.4	5.6	6.3	5.8	10.1	11.5	3.5	7.1	13.7
After income taxes	Cents	5.6	3.8	0.9	4.9	5.5	4.9	8.2	9.2	3.1	6.0	10.3
Profits on stockholders' equity:												
Before income taxes	Percent	16.4	8.6	1.6	11.8	13.2	12.6	23.2	23.5	6.0	13.0	30.3
After income taxes	Percent	12.7	7.6	2.5	10.2	11.4	10.6	18.9	18.9	5.2	11.0	22.8

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

Source: U.S. Census Bureau, *Quarterly Financial Report for Manufacturing, Mining and Trade Corporations.*

No. 907. 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. 908. Electric Power Industry—Sales, Prices, Net Generation, Net Summer Capability, and Consumption of Fuels: 1990 to 1999

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

Item	Unit	1990	1995	1996	1997	1998	1999
ELECTRIC POWER INDUSTRY							
Consumption, total	**Bil. kWh**	**2,816.7**	**3,162.4**	**3,246.7**	**3,288.7**	**3,399.6**	**(NA)**
Net generation, total	Bil. kWh	3,024.9	3,357.8	3,447.0	3,494.2	3,617.9	3,677.7
Electric utilities	Bil. kWh	2,808.2	2,994.5	3,077.4	3,122.5	3,212.2	3,182.9
Nonutilities	Bil. kWh	216.7	363.3	369.6	371.7	405.7	494.8
Electricity imports	Bil. kWh	18.4	42.9	43.5	43.0	39.5	42.9
Electricity exports	Bil. kWh	16.1	3.6	3.3	9.0	13.2	14.0
Electricity losses and unaccounted for	Bil. kWh	210.4	234.6	240.5	239.5	244.5	(NA)
Electric utility retail sales of electricity	Bil. kWh	2,712.6	3,013.3	3,097.8	3,139.8	3,239.8	3,265.4
Direct use of electricity at nonutilities	Bil. kWh	84.4	133.6	134.6	130.8	134.0	(NA)
Nonutility sales of electricity to end users	Bil. kWh	19.8	15.5	14.3	18.1	25.8	(NA)
Electricity retail prices per kWh:							
All sectors, current dollars	Cents	6.57	6.89	6.86	6.85	6.74	6.63
All sectors, real (1996) dollars	Cents	7.59	7.02	6.86	6.72	6.54	6.34
Residential, current dollars	Cents	7.83	8.40	8.36	8.43	8.26	8.17
Residential, real (1996) dollars	Cents	9.05	8.56	8.36	8.27	8.01	7.81
Commercial, current dollars	Cents	7.34	7.69	7.64	7.59	7.41	7.20
Commercial, real (1996) dollars	Cents	8.48	7.84	7.64	7.45	7.19	6.88
Industrial, current dollars	Cents	4.74	4.66	4.60	4.53	4.48	4.42
Industrial, real (1996) dollars	Cents	5.48	4.75	4.60	4.45	4.34	4.23
Other users, current dollars	Cents	6.40	6.88	6.91	6.91	6.63	6.74
Other users, real (1996) dollars	Cents	7.40	7.01	6.91	6.78	6.43	6.44
Net generation, total [1]	**Bil. kWh**	**3,024.9**	**3,357.8**	**3,447.0**	**3,494.2**	**3,617.9**	**3,677.7**
Coal	Bil. kWh	1,590.3	1,710.2	1,795.7	1,844.1	1,873.9	1,890.7
Petroleum	Bil. kWh	124.0	75.3	81.7	93.0	126.9	115.6
Natural gas	Bil. kWh	378.3	498.5	455.8	485.4	540.6	545.8
Nuclear	Bil. kWh	577.0	673.4	674.7	628.6	673.7	727.9
Hydroelectric pumped storage plants	Bil. kWh	-3.5	-2.7	-3.1	-4.0	-4.4	-6.1
Conventional hydroelectric power plants	Bil. kWh	293.0	311.0	347.4	358.9	323.3	311.7
Geothermal	Bil. kWh	15.8	14.4	15.1	14.6	14.7	14.2
Wood	Bil. kWh	30.4	36.4	36.8	34.2	31.8	41.8
Waste	Bil. kWh	10.8	16.9	16.4	17.6	18.1	19.6
Other waste	Bil. kWh	2.3	3.4	4.3	3.0	3.2	3.4
Wind	Bil. kWh	3.0	3.2	3.4	3.2	3.0	3.6
Solar	Bil. kWh	0.6	0.8	0.9	0.9	0.9	0.3
Net summer capability, total [1]	**Mil. kW**	**734.9**	**769.5**	**775.9**	**778.5**	**775.9**	**781.6**
Coal-fired plants	Mil. kW	306.7	310.8	313.0	313.1	312.6	312.5
Petroleum-fired plants	Mil. kW	56.7	48.0	47.8	46.3	42.2	42.3
Natural gas-fired plants	Mil. kW	31.0	41.9	48.8	49.9	59.1	57.1
Dual-fired plants	Mil. kW	133.5	152.4	151.6	153.6	148.0	153.1
Nuclear electric power plants	Mil. kW	99.6	99.5	100.8	99.7	97.1	97.2
Hydroelectric pumped storage plants	Mil. kW	19.5	21.4	21.1	19.3	18.9	18.9
Conventional hydroelectric power plants	Mil. kW	74.0	78.6	76.4	79.8	79.6	79.7
Geothermal energy plants	Mil. kW	2.7	3.0	2.9	2.9	2.9	2.9
Wood energy plants	Mil. kW	6.2	6.8	7.1	7.1	6.8	6.8
Waste energy plants	Mil. kW	2.6	3.5	3.5	3.4	3.5	3.5
Wind energy plants	Mil. kW	1.9	1.7	1.7	1.6	1.7	1.7
Solar energy plants	Mil. kW	0.3	0.3	0.3	0.3	0.4	0.4
Fuel consumption:							
Coal	Mil. sh. tons	805.9	879.3	927.9	953.3	967.7	968.5
Residual fuel	Mil. bbl	181.2	86.6	96.4	110.0	156.6	126.1
Distillate fuel and kerosene	Mil. bbl	14.8	15.6	16.9	15.2	22.0	22.8
Petroleum	Mil. bbl	233.6	161.9	177.5	189.6	264.1	217.1
Natural gas	Bil. cu. ft.	4,174.1	5,500.5	5,179.8	5,199.8	5,924.5	5,387.9
ELECTRIC UTILITIES							
Net generation, total [1]	**Bil. kWh**	**2,808.2**	**2,994.5**	**3,077.4**	**3,122.5**	**3,212.2**	**3,182.9**
Coal	Bil. kWh	1,559.6	1,652.9	1,737.5	1,787.8	1,807.5	1,773.5
Petroleum	Bil. kWh	117.0	60.8	67.3	77.8	110.2	89.7
Natural gas	Bil. kWh	264.1	307.3	262.7	283.6	309.2	297.3
Nuclear	Bil. kWh	576.9	673.4	674.7	628.6	673.7	725.0
Hydroelectric pumped storage plants	Bil. kWh	-3.5	-2.7	-3.1	-4.0	-4.4	-6.0
Conventional hydroelectric power plants	Bil. kWh	283.4	296.4	331.1	341.3	308.8	299.7
Net summer capability, total [1]	**Mil. kW**	**690.5**	**706.1**	**709.9**	**711.9**	**686.7**	**641.5**
Coal-fired plants	Mil. kW	299.9	300.6	302.4	302.9	299.7	285.8
Petroleum-fired plants	Mil. kW	55.4	46.1	45.7	43.7	39.8	19.9
Natural gas-fired plants	Mil. kW	15.0	17.7	22.7	22.9	26.2	12.4
Dual-fired plants	Mil. kW	127.5	143.2	142.0	144.9	127.2	132.3
Nuclear electric power plants	Mil. kW	99.6	99.5	100.8	99.7	97.1	94.8
Hydroelectric pumped storage plants	Mil. kW	19.5	21.4	21.1	19.3	18.9	18.9
Conventional hydroelectric power plants	Mil. kW	71.4	75.3	73.1	76.2	75.5	74.1
NONUTILITY PLANTS							
Net generation, total [1]	**Bil. kWh**	**21.7**	**36.3**	**37.0**	**37.2**	**40.6**	**49.5**
Coal	Bil. kWh	3.1	5.7	5.8	5.6	6.6	11.7
Petroleum	Bil. kWh	0.7	1.4	1.4	1.5	1.7	2.6
Natural gas	Bil. kWh	11.4	19.1	19.3	20.2	23.1	24.8
Net summer capability, total [1]	**Mil. kW**	**44.5**	**63.4**	**65.9**	**66.6**	**89.2**	**140.1**
Coal-fired plants	Mil. kW	6.8	10.2	10.6	10.3	12.8	26.7
Petroleum-fired plants	Mil. kW	1.2	2.0	2.1	2.7	2.4	22.4
Natural gas-fired plants	Mil. kW	16.0	24.2	26.1	26.9	32.9	44.7
Dual-fired plants	Mil. kW	6.0	9.2	9.6	8.8	20.8	20.8

NA Not available. [1] Includes types not shown separately.
Source: U.S. Energy Information Administration, *Electric Power Annual* and *Annual Energy Review.*

No. 909. Electric Utility Industry—Capability, Peak Load, and Capacity Margin: 1980 to 1999

[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	824,569	95,490	835,301	91,527	725,745	652,408	98,824	12.0	182,893	21.9
1999	834,035	9,466	848,871	13,570	748,522	656,332	85,513	10.3	192,539	22.7

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

No. 910. Electric Energy Sales by Class of Service and State: 1999

[In billions of kilowatt-hours (3,235.9 represents 3,235,900,000,000)]

State	Total [1]	Residential	Commercial	Industrial	State	Total [1]	Residential	Commercial	Industrial
United States	**3,235.9**	**1,140.8**	**970.6**	**1,017.8**	Missouri	69.0	27.8	24.0	16.1
					Montana	12.1	3.7	3.0	5.1
Alabama	80.4	27.0	18.1	34.5	Nebraska	22.8	7.9	6.7	6.9
Alaska	5.3	1.9	2.4	0.8	Nevada	26.3	8.4	6.0	10.9
Arizona	57.7	22.5	19.8	12.5	New Hampshire	9.7	3.6	3.5	2.5
Arkansas	39.8	14.0	8.4	16.7					
California	212.0	74.5	78.2	49.6	New Jersey	70.6	24.6	32.4	13.1
					New Mexico	18.0	4.6	5.9	5.9
Colorado	40.6	13.1	17.0	9.5	New York	129.8	42.5	49.4	25.2
Connecticut	29.8	11.6	11.8	5.8	North Carolina	115.0	43.6	35.1	34.2
Delaware	10.5	3.5	3.3	3.6	North Dakota	9.1	3.3	2.4	3.0
District of Columbia	10.4	1.6	8.1	0.2					
Florida	187.3	93.8	69.1	18.6	Ohio	164.3	46.6	39.5	74.3
					Oklahoma	46.7	18.3	12.4	13.3
Georgia	112.7	41.8	34.1	35.3	Oregon	47.0	18.1	14.9	13.6
Hawaii	9.4	2.7	2.9	3.7	Pennsylvania	96.0	41.2	24.8	28.9
Idaho	21.8	6.8	6.5	8.3	Rhode Island	6.7	2.7	2.7	1.1
Illinois	132.2	39.6	41.9	41.6					
Indiana	96.7	28.8	20.2	47.2	South Carolina	73.3	23.7	16.6	32.1
					South Dakota	7.9	3.3	2.3	1.9
Iowa	38.0	11.9	8.3	16.5	Tennessee	93.2	35.4	25.2	31.5
Kansas	33.8	11.3	11.8	10.2	Texas	301.8	108.6	79.4	99.7
Kentucky	79.1	22.5	13.2	40.1	Utah	21.9	6.2	7.3	7.6
Louisiana	78.3	26.4	17.6	31.5					
Maine	11.9	3.7	3.5	4.7	Vermont	5.5	2.0	1.9	1.6
					Virginia	93.0	35.8	27.0	20.3
Maryland	59.1	23.3	25.0	9.9	Washington	94.2	32.8	23.0	34.6
Massachusetts	47.8	17.4	20.5	9.4	West Virginia	27.1	9.5	6.5	11.1
Michigan	103.5	30.7	35.1	36.8	Wisconsin	63.5	19.5	17.6	25.7
Minnesota	57.4	18.0	10.9	27.8	Wyoming	11.8	2.0	2.5	7.1
Mississippi	44.0	16.3	11.2	15.7					

[1] Includes "other service" not shown separately.

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

No. 911. Electric Utilities—Net Generation and Net Summer Capability by State: 1990 to 1999

[**Capability 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)			
				1999					
	1990	1995	1998	Total	Percent from coal	1990	1995	1998	1999
United States	**2,808.2**	**2,994.5**	**3,212.2**	**3,173.7**	**55.7**	**690.5**	**706.1**	**686.7**	**639.3**
Alabama	76.2	99.6	113.4	113.9	64.3	20.0	20.5	21.3	21.5
Alaska	4.5	4.8	4.6	4.6	3.4	1.5	1.7	1.7	1.7
Arizona	62.3	69.0	81.3	83.1	45.7	14.9	15.2	15.1	15.1
Arkansas	37.1	39.5	43.2	44.1	55.8	9.6	9.6	9.6	9.3
California	114.5	121.9	114.9	87.9	-	43.7	43.3	30.7	24.3
Colorado	31.3	32.7	35.5	36.2	90.2	6.6	6.6	6.9	7.3
Connecticut	32.2	26.9	15.1	20.5	-	7.1	6.7	5.6	2.9
Delaware	7.1	8.3	6.3	6.2	44.3	2.0	2.2	2.3	2.3
District of Columbia	0.4	0.2	0.2	-	-	0.8	0.8	0.8	0.8
Florida	123.6	147.2	169.4	166.9	37.6	32.7	35.9	36.5	36.5
Georgia	97.6	102.0	108.7	110.5	67.0	20.7	22.3	23.4	23.3
Hawaii	8.0	6.2	6.3	6.5	-	1.5	1.6	1.6	1.6
Idaho	8.6	10.1	12.0	12.5	-	2.3	2.6	2.6	2.6
Illinois	127.0	145.2	131.3	149.8	43.3	32.6	33.1	30.4	17.0
Indiana	97.7	105.2	112.8	114.2	98.4	20.6	20.7	20.3	20.4
Iowa	29.0	33.5	37.1	37.0	86.3	8.0	8.2	8.4	8.4
Kansas	33.9	38.2	41.5	42.0	70.6	9.6	9.7	9.9	10.0
Kentucky	73.8	86.2	86.2	81.7	96.2	15.5	15.4	14.0	14.7
Louisiana	58.2	65.6	66.1	64.8	32.6	16.8	17.0	17.0	16.3
Maine	9.1	2.7	3.5	1.2	-	2.4	2.4	1.5	0.1
Maryland	31.5	44.7	48.5	49.3	59.5	9.8	11.0	11.0	11.0
Massachusetts	36.5	27.0	26.0	4.4	24.6	9.9	9.3	3.4	2.2
Michigan	89.1	92.5	85.1	87.9	78.7	22.3	22.0	21.9	22.4
Minnesota	41.6	42.5	44.0	44.2	64.2	8.8	8.9	9.1	9.0
Mississippi	22.9	26.4	32.0	32.2	40.5	7.0	7.2	7.2	6.8
Missouri	59.0	65.4	74.9	73.5	83.3	15.2	15.7	16.3	16.8
Montana	25.7	25.4	27.6	27.6	57.9	4.9	4.9	4.9	3.0
Nebraska	21.6	25.3	28.7	30.0	59.4	5.5	5.5	5.8	5.8
Nevada	19.3	20.0	26.6	26.5	63.8	4.9	5.6	5.6	5.4
New Hampshire	10.8	13.9	14.2	13.9	24.0	2.6	2.5	2.3	2.3
New Jersey	36.5	27.1	35.9	38.9	16.4	13.7	13.8	13.4	12.1
New Mexico	28.5	29.4	31.4	31.7	88.7	5.0	5.1	5.3	5.3
New York	128.7	101.2	115.8	97.0	11.3	31.2	32.1	29.6	17.7
North Carolina	79.8	96.1	113.1	109.9	62.4	20.2	20.6	21.0	21.2
North Dakota	26.8	28.8	30.5	31.3	91.5	4.5	4.5	4.7	4.7
Ohio	126.5	137.9	146.4	140.9	87.2	27.0	27.4	26.8	27.1
Oklahoma	45.1	48.0	51.5	50.3	60.8	12.8	12.9	12.6	12.9
Oregon	49.2	44.0	46.4	51.7	7.2	11.2	10.4	10.4	10.3
Pennsylvania	165.7	168.9	173.9	161.6	53.0	33.4	33.7	33.8	25.3
Rhode Island	0.6	0.7	2.1	(Z)	-	0.3	0.4	-	-
South Carolina	69.3	78.4	84.4	87.3	40.4	14.9	16.7	17.6	17.7
South Dakota	6.4	8.8	9.1	10.6	34.8	2.7	3.0	2.9	2.9
Tennessee	73.9	82.3	94.1	89.7	61.6	17.0	16.1	17.5	17.3
Texas	234.0	261.7	293.1	292.5	47.2	62.0	64.4	65.2	65.3
Utah	32.3	32.1	35.2	36.1	94.6	4.8	4.8	5.1	5.1
Vermont	5.0	4.8	4.4	4.7	-	1.1	1.1	0.8	0.8
Virginia	47.2	52.7	63.8	65.1	48.8	13.7	14.3	15.3	15.3
Washington	100.5	95.7	97.1	112.1	7.7	24.2	24.3	25.2	25.2
West Virginia	77.4	77.3	89.6	91.7	99.4	14.4	14.5	14.5	14.5
Wisconsin	45.6	51.0	52.5	54.7	72.9	10.6	11.5	11.9	12.1
Wyoming	39.4	39.7	44.7	43.0	97.1	5.8	6.0	6.0	6.0

- Represents zero. Z Represents less than 50 million kWh.

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. 912. 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.* See also <http://www.eia.doe.gov/pub/pdf/multi.fuel/038499. pdf> (released July 2000).

No. 913. Nuclear Power Plants—Number of Units, Net Generation, and Net Summer Capability by State: 1999

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.	**104**	**725,036**	**22.8**	**97.07**	**15.2**	MS	1	8,428	25.9	1.20	17.7
AL	5	30,892	27.1	4.95	23.1	MO	1	8,587	11.7	1.14	6.8
AZ	3	30,416	36.6	3.73	24.7	NE	2	10,091	33.7	1.25	21.4
AR	2	12,920	29.3	1.69	18.3	NH	1	8,676	62.4	1.16	50.7
CA	4	33,372	37.2	4.31	17.7	NJ	4	28,971	74.5	3.86	32.0
CT	2	12,675	61.6	2.01	68.9	NY	6	37,019	38.2	4.97	28.1
FL	5	31,526	18.9	3.87	10.6	NC	5	37,524	34.2	4.69	22.1
GA	4	31,478	28.6	3.95	16.9	OH	2	16,422	11.6	2.04	7.5
IL	11	81,356	54.4	10.53	62.0	PA	9	70,885	44.0	9.04	35.8
IA	1	3,640	9.8	0.52	6.2	SC	7	50,814	58.2	6.43	36.4
KS	1	9,157	21.8	1.16	11.6	TN	3	27,227	30.4	3.36	19.5
LA	2	13,112	20.3	2.01	12.3	TX	4	36,760	12.7	4.80	7.4
MD	2	13,312	26.9	1.68	15.3	VT	1	4,059	85.3	0.50	63.9
MA	1	1,931	31.3	0.67	30.0	VA	4	28,301	43.5	3.39	22.2
MI	4	14,591	16.6	3.92	17.5	WA	1	6,086	5.4	1.12	4.5
MN	3	13,316	30.2	1.63	18.1	WI	3	11,495	21.0	1.49	12.4

[1] For total capability and generation, see Table 911.

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

No. 914. Uranium Concentrate—Supply, Inventories, and Average Prices: 1980 to 1999

[**Years ending Dec. 31.** For additional data on uranium, see Section 18, Natural Resources, on mining]

Item	Unit	1980	1990	1993	1994	1995	1996	1997	1998	1999
Production	Mil. lb.	43.70	8.89	3.06	3.35	6.04	6.32	5.64	4.71	4.61
Exports	Mil. lb.	5.8	2.0	3.0	17.7	9.8	11.5	17.0	15.1	8.5
Imports	Mil. lb.	3.6	23.7	21.0	36.6	41.3	45.4	43.0	43.7	47.6
Utility purchases from domestic suppliers	Mil. lb.	(NA)	20.5	15.5	22.7	22.3	22.9	18.7	20.3	19.2
Loaded into U.S. nuclear reactors [1]	Mil. lb.	(NA)	(NA)	45.1	40.4	51.1	46.2	48.2	38.2	58.8
Inventories, total	Mil. lb.	(NA)	129.1	105.7	86.9	72.5	80.0	106.2	137.6	127.0
At domestic suppliers	Mil. lb.	(NA)	26.4	24.5	21.5	13.7	13.9	40.4	70.7	68.8
At electric utilities	Mil. lb.	(NA)	102.7	81.2	65.4	58.7	66.1	65.9	65.8	58.2
Average prices:										
Purchased imports	Dol. per lb.	(NA)	12.55	10.53	8.95	10.20	13.15	11.81	11.19	10.55
Domestic purchases	Dol. per lb.	(NA)	15.70	13.14	10.30	11.11	13.81	12.87	12.31	11.88

NA Not available. [1] Does not include any fuel rods removed from reactors and later reloaded into the reactor.

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

No. 915. Nonutility Electric Power Producers—Summary by Type of Fuel: 1990 to 1999

[A nonutility power producer may be a corporation, person, agency, authority, or other legal entity or instrumentality that owns electric generating capacity and is not an electric utility. Nonutility power producers include qualifying cogenerators, qualifying small power producers, and other nonutility generators (including independent power producers) without a designated franchised service area, and which do not file forms listed in the Code of Federal Regulations, Title 18, Part 141]

Type of fuel	Unit	1990	1992	1993	1994	1995	1996	1997	1998	1999
Installed capacity	**1,000 kW.**	**45,271**	**56,814**	**60,778**	**68,461**	**70,254**	**73,189**	**74,004**	**98,085**	**167,357**
Coal [1]	1,000 kW.	6,937	8,503	9,772	10,372	10,877	11,370	11,027	13,712	48,501
Petroleum [2]	1,000 kW.	1,038	1,730	2,043	2,262	2,116	2,251	2,924	2,629	3,701
Natural gas	1,000 kW.	17,430	21,542	23,463	26,925	27,906	30,166	31,092	37,325	49,353
Other gas [3]	1,000 kW.	(4)	(4)	(4)	1,130	1,217	327	35	205	918
Petroleum/natural gas (combined)	1,000 kW.	6,468	8,478	8,505	9,820	10,479	10,912	10,029	23,105	40,508
Hydroelectric	1,000 kW.	1,968	2,684	2,741	3,364	3,399	3,419	3,770	4,136	5,996
Geothermal	1,000 kW.	1,086	1,254	1,318	1,335	1,295	1,346	1,303	1,449	2,698
Solar	1,000 kW.	360	360	360	354	354	354	354	385	382
Wind	1,000 kW.	1,405	1,822	1,813	1,737	1,723	1,670	1,566	1,689	2,222
Wood [5]	1,000 kW.	6,049	6,805	7,046	7,416	6,885	7,263	7,282	6,887	6,647
Waste [6]	1,000 kW.	2,323	3,006	3,131	3,150	3,430	3,463	3,394	3,488	4,316
Gross generation	**Mil. kWh**	**220,058**	**296,001**	**325,226**	**354,925**	**375,901**	**382,423**	**384,496**	**421,364**	**569,336**
Coal [1]	Mil. kWh	32,131	47,363	53,367	59,035	60,234	61,375	59,211	70,369	129,502
Petroleum [2]	Mil. kWh	7,330	10,963	13,364	15,069	15,049	14,959	15,930	17,533	21,947
Natural gas	Mil. kWh	116,969	158,798	174,282	179,735	196,633	198,555	207,527	238,747	295,725
Other gases [3]	Mil. kWh	(4)	(4)	(4)	12,480	13,984	14,750	11,687	8,866	8,707
Hydroelectric	Mil. kWh	8,153	9,446	11,511	13,227	14,774	16,555	17,902	14,633	21,748
Geothermal	Mil. kWh	7,235	8,578	9,749	10,122	9,912	10,198	9,382	9,882	15,581
Solar	Mil. kWh	663	746	897	824	824	903	893	887	870
Wind	Mil. kWh	2,251	2,916	3,052	3,482	3,185	3,400	3,248	3,015	4,510
Wood [5]	Mil. kWh	30,812	36,255	37,421	38,595	37,283	37,525	34,898	32,596	34,999
Waste [6]	Mil. kWh	11,688	17,352	18,325	18,797	20,231	20,412	20,246	21,086	22,312
Supply and disposition:										
Gross generation	Mil. kWh	220,058	296,001	325,226	354,925	375,901	382,423	384,496	421,364	569,336
Receipts	Mil. kWh	60,926	83,421	85,323	94,166	89,919	103,219	88,506	90,675	89,688
Sales to utilities	Mil. kWh	106,224	164,374	187,466	204,688	217,906	224,646	223,532	249,483	369,539
Sales to other end users	Mil. kWh	19,824	10,786	15,569	17,626	15,548	14,284	18,147	25,777	42,983
Facility use	Mil. kWh	154,936	204,261	207,514	226,777	232,367	246,713	231,138	236,770	250,227

[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, *Electric Power Annual,* Vol. II; and *Inventory of Nonutility Electric Power Plants in the United States,* annual.

No. 916. 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	3,025	3,197	3,254	3,358	3,447	3,494	3,618
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. 917. Major Investor-Owned Electric Utilities—Balance Sheet and Income Account of Privately Owned Companies: 1994 to 1999

[**In millions of dollars (196,282 represents $196,282,000,000). 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	1994	1995	1996	1997	1998	1999
COMPOSITE INCOME ACCOUNTS						
Operating revenue	196,282	199,967	207,459	215,083	218,175	214,160
Electric	179,307	183,655	188,901	195,898	201,970	197,578
Gas	16,222	15,580	17,869	18,663	15,735	16,033
Other utility	753	731	689	522	470	550
Operating expenses [1]	164,207	165,321	173,920	182,796	186,498	182,258
Electric [1]	148,663	150,599	156,938	165,443	171,689	167,266
Operation	93,108	91,881	97,207	104,337	110,759	108,461
Maintenance	12,022	11,767	12,050	12,368	12,486	12,276
Depreciation	18,679	19,885	21,194	23,072	24,122	23,968
Taxes other than income taxes	13,275	13,519	13,569	13,612	12,867	12,336
Income taxes	9,626	11,480	11,195	11,862	13,037	14,843
Deferred income tax	1,832	1,474	1,617	25	-476	-2,216
Investment tax credit (net)	-585	-550	-577	-448	-651	-1,695
Gas	14,878	14,073	16,258	16,925	14,396	14,493
Other utility	667	649	725	427	413	499
Operating income	32,074	34,646	33,539	32,286	31,677	31,902
Electric	30,645	33,057	31,963	30,454	30,281	30,311
Gas	1,344	1,507	1,612	1,737	1,339	1,540
Other utility	86	82	-36	95	57	51
Total income before interest charges	33,884	36,457	35,153	34,100	32,788	33,567
Less: Net interest charges	14,162	14,421	13,990	14,086	14,057	13,691
Interest expense	13,915	14,170	13,646	13,768	13,670	13,376
Less allow. for borrowed funds used during constuction	421	435	326	331	328	331
Other charges, net	667	687	671	649	715	646
Net income before extraordinary charges	19,722	22,036	21,162	20,014	18,732	19,876
Less extraordinary items after taxes	-165	-25	-66	3,151	1,344	2,793
Equals: Net income	**19,888**	**22,061**	**21,228**	**16,863**	**17,388**	**17,083**
Dividends declared - preferred stock	1,582	1,519	1,248	1,005	750	687
Earnings available for common stocks	18,306	20,542	19,980	15,857	16,638	16,396
Dividends declared - common stock	15,876	16,250	16,810	17,756	17,414	18,687
Additions total earnings	2,063	4,282	2,193	-1,960	-199	-2,785
COMPOSITE BALANCE SHEET						
Total assets and other debits	**574,512**	**578,934**	**581,991**	**586,241**	**598,856**	**585,827**
Utility plant, net	397,812	397,383	396,438	385,258	362,388	344,112
Electric utility plant, net	366,936	366,116	363,854	351,427	327,646	310,317
Electric utility plant	535,928	553,858	569,969	579,042	575,651	567,825
Construction work in progress	17,148	13,523	11,396	11,164	11,886	12,306
Less accumulated depreciation	186,140	201,265	217,510	238,779	259,892	269,813
Nuclear fuel, net	5,657	5,286	5,444	5,219	4,731	4,265
Other utility plant, net	25,219	25,981	27,140	28,613	30,011	29,529
Other property and investments	23,479	27,988	33,120	43,248	48,853	54,546
Current and accrued assets	41,263	44,140	43,515	47,639	54,901	57,324
Deferred debits	111,957	109,423	108,918	110,096	132,714	129,845
CAPITALIZATION AND LIABILITIES						
Liabilities and other credits	**574,512**	**578,934**	**581,991**	**586,241**	**598,856**	**585,827**
Capitalization	364,725	365,775	365,783	369,079	367,052	345,786
Common stock equity (end of year)	164,483	170,497	174,325	174,467	172,239	165,341
Preferred stock	24,860	21,569	18,830	16,080	14,447	12,061
Long-term debt	175,382	173,708	172,627	178,532	180,366	168,384
Current liabilities and deferred credits	209,787	213,159	216,208	217,162	231,803	240,041

[1] Includes items not shown separately.
Source: U.S. Energy Information Administration, *Electric Power Annual.*

No. 918. Water Power—Developed and Undeveloped Capacity by Division: 1980 to 1999

[**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	1995	1997	1998	1999	1980	1990	1995	1997	1998	1999
United States	**64.4**	**73.0**	**74.2**	**73.5**	**73.8**	**73.8**	**129.9**	**73.9**	**71.0**	**64.1**	**64.1**	**64.1**
New England	1.5	1.9	1.9	2.0	2.0	2.0	4.7	4.4	4.4	3.9	3.9	3.9
Middle Atlantic	4.3	4.9	4.9	5.6	5.6	5.6	5.1	5.1	4.9	3.6	3.6	3.6
East North Central	0.9	1.1	1.2	1.2	1.2	1.2	2.0	1.7	1.7	1.5	1.5	1.5
West North Central	2.8	3.1	3.1	3.0	3.0	3.0	3.4	3.1	3.1	2.8	2.8	2.8
South Atlantic	5.9	6.7	6.7	6.8	6.8	6.8	9.6	7.0	7.2	6.8	6.8	6.8
East South Central	5.6	5.9	5.9	5.9	5.9	5.9	3.3	2.4	2.3	2.0	2.0	2.0
West South Central	2.3	2.7	2.7	2.8	2.8	2.8	4.7	4.6	4.6	4.0	4.0	4.0
Mountain	7.4	9.2	9.5	10.0	10.0	10.0	34.2	19.4	18.8	18.0	18.0	18.0
Pacific	33.7	37.5	38.3	36.2	36.5	36.5	62.9	26.2	24.0	21.5	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 from the Hydroelectric Power Resources Assessment Database Developed and Undeveloped, March 30, 2001.

No. 919. Solar Collector Shipments by Type, End Use, and Market Sector: 1980 to 1999

[**Shipments in thousands of square feet (19,398 represents 19,398,000).** 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: Low temperature	Collector type: Medium temperature, special, other	End use: Pool heating	End use: Hot water	End use: Space heating	Market sector: Residential	Market sector: Commercial	Market sector: Industrial
1980	233	19,398	12,233	7,165	12,029	4,790	1,688	16,077	2,417	488
1981	203	20,133	8,677	11,456	9,781	7,204	2,017	15,773	2,561	1,518
1982	265	18,621	7,476	11,145	7,035	7,444	2,367	13,729	3,789	560
1983	203	16,828	4,853	11,975	4,839	9,323	2,082	11,780	3,039	1,665
1984	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
1998	28	7,756	7,292	443	7,201	463	67	7,165	517	62
1999	29	8,583	8,152	427	8,141	373	42	7,774	785	18

[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, 1974-1993, *Solar Collector Manufacturing Activity,* annual reports; thereafter, *Renewable Energy Annual.*

No. 920. Privately Owned Gas Utility Industry—Balance Sheet and Income Account: 1980 to 1999

[**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	1990	1993	1994	1995	1996	1997	1998	1999
COMPOSITE BALANCE SHEET									
Assets, total	**75,851**	**121,686**	**135,813**	**137,911**	**141,965**	**121,328**	**134,715**	**119,715**	**174,272**
Total utility plant	67,071	112,863	135,859	139,372	143,636	135,179	140,268	135,092	186,294
Depreciation and amortization	*26,162*	*49,483*	*60,152*	*61,140*	*62,723*	*58,815*	*62,554*	*61,226*	*82,781*
Utility plant (net)	40,909	63,380	75,707	78,232	80,912	76,364	77,714	73,866	103,513
Investment and fund accounts	15,530	23,872	23,342	22,658	26,489	13,207	22,812	12,337	19,449
Current and accrued assets	17,243	23,268	21,451	20,728	18,564	17,393	19,084	17,348	25,166
Deferred debits [1]	2,169	9,576	13,369	14,234	13,923	11,983	12,844	13,721	23,461
Liabilities, total	**75,851**	**121,686**	**135,813**	**137,911**	**141,965**	**121,328**	**134,775**	**119,715**	**174,272**
Capitalization, total	51,382	74,958	82,755	85,728	90,581	77,440	78,887	71,718	106,802
Capital stock	29,315	43,810	49,051	50,394	54,402	43,555	42,530	37,977	53,241
Long-term debts	22,067	31,148	33,693	35,296	35,548	33,644	35,971	33,386	52,598
Current and accrued liabilities	18,119	29,550	27,321	25,438	28,272	22,098	33,507	26,953	36,949
Deferred income taxes [2]	4,149	11,360	13,070	13,787	14,393	13,326	13,636	13,239	19,198
Other liabilities and credits	2,201	5,818	12,667	12,955	8,715	8,464	8,745	7,806	11,323
COMPOSITE INCOME ACCOUNT									
Operating revenues, total	**85,918**	**66,027**	**69,966**	**63,446**	**58,390**	**63,600**	**62,617**	**57,117**	**66,317**
Minus: Operating expenses [3]	*81,789*	*60,137*	*62,977*	*56,789*	*50,760*	*56,695*	*59,375*	*50,896*	*57,054*
Operation and maintenance	74,508	51,627	50,468	43,879	37,966	43,742	46,070	41,026	45,366
Federal, state, and local taxes	4,847	4,957	6,185	6,613	6,182	6,362	7,182	5,429	6,682
Equals: Operating income	4,129	5,890	6,988	6,657	7,630	6,905	3,242	6,220	9,263
Utility operating income	4,471	6,077	7,177	6,851	7,848	7,013	3,337	6,361	9,380
Income before interest charges	6,929	8,081	8,754	8,200	9,484	8,030	4,193	7,779	10,882
Net income	4,194	4,410	5,589	5,011	5,139	4,797	48	4,379	6,104
Dividends	2,564	3,191	3,149	3,928	4,037	4,138	6,258	2,263	3,701

[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. 921. Gas Utility Industry—Summary: 1980 to 1999

[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	1995	1996	1997	1998	1999
End users [1]	**1,000**	**47,223**	**49,971**	**54,261**	**58,728**	**59,820**	**59,802**	**60,437**	**61,850**
Residential	1,000	43,489	45,929	49,802	53,955	54,968	54,998	55,642	56,883
Commercial	1,000	3,498	3,816	4,246	4,530	4,616	4,593	4,595	4,756
Industrial and other	1,000	187	179	166	181	183	173	162	162
Sales [2]	**Tril. Btu [3]**	**15,413**	**12,616**	**9,842**	**9,094**	**9,532**	**8,913**	**8,341**	**8,747**
Residential	Tril. Btu	4,826	4,513	4,468	4,736	5,198	5,021	4,693	4,709
Percent of total	Percent	31.3	35.8	45.4	52.0	54.5	56.3	56.3	53.8
Commercial	Tril. Btu	2,453	2,338	2,192	2,204	2,395	2,244	2,043	2,030
Industrial	Tril. Btu	7,957	5,635	3,010	1,930	1,791	1,524	1,489	1,916
Other	Tril. Btu	177	130	171	224	148	124	116	93
Revenues [2]	**Mil. dol**	**48,303**	**63,293**	**45,153**	**46,381**	**51,115**	**51,517**	**46,924**	**46,345**
Residential	Mil. dol	17,432	26,864	25,000	28,741	32,022	33,068	30,671	30,082
Percent of total	Percent	36.1	42.4	55.4	61.9	62.6	64.2	65.4	64.9
Commercial	Mil. dol	8,183	12,722	10,604	11,410	12,726	12,666	11,189	10,581
Industrial	Mil. dol	22,215	23,086	8,996	5,652	5,821	5,284	4,678	5,319
Other	Mil. dol	473	621	553	579	546	498	387	363
Prices per mil. Btu [3]	**Dollars**	**3.13**	**5.02**	**4.59**	**5.10**	**5.37**	**5.78**	**5.63**	**5.30**
Residential	Dollars	3.61	5.95	5.60	6.06	6.17	6.59	6.54	6.39
Commercial	Dollars	3.34	5.44	4.84	5.18	5.31	5.64	5.48	5.21
Industrial	Dollars	2.79	4.10	2.99	3.00	3.32	3.53	3.28	2.92
Gas mains mileage	**1,000**	**1,052**	**1,119**	**1,207**	**1,262**	**1,269**	**1,258**	**1,280**	**1,367**
Field and gathering	1,000	84	94	90	62	58	46	45	36
Transmission	1,000	266	271	280	265	260	257	254	263
Distribution	1,000	702	754	837	935	952	955	981	1,067
Construction expenditures [4]	**Mil. dol**	**5,350**	**5,671**	**7,899**	**10,829**	**7,722**	**7,189**	**11,941**	**9,293**
Transmission	Mil. dol	1,583	1,562	2,886	3,384	1,316	1,334	2,892	1,994
Distribution	Mil. dol	1,869	2,577	3,714	5,448	4,234	4,404	6,852	4,669
Production and storage	Mil. dol	1,150	790	309	366	651	347	572	180

[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. 922. Gas Utility Industry—Customers, Sales, and Revenues by State: 1999

[See headnote, Table 921. 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.	**61,869**	**56,883**	**8,747**	**4,709**	**46,345**	**29,813**	MO	1,455	1,316	181	116	1,055	730
AL	832	765	103	43	612	350	MT	250	219	32	21	155	103
AK	121	90	43	18	97	64	NE	515	456	74	41	350	218
AZ	852	799	81	33	513	300	NV	510	481	46	29	291	198
AR	626	554	73	37	427	255	NH	90	76	19	7	116	46
CA	9,491	9,055	708	507	4,353	3,336	NJ	2,415	2,180	569	201	2,435	1,415
CO	1,345	1,220	224	108	806	553	NM	520	475	58	35	266	181
CT	483	438	97	38	661	385	NY	4,357	4,028	653	375	4,648	3,290
DE	121	111	25	9	141	72	NC	920	805	152	54	863	431
DC	139	125	22	10	177	89	ND	117	102	23	11	100	55
FL	633	580	67	15	433	169	OH	3,133	2,898	406	302	2,389	1,829
GA	1,057	923	202	108	525	287	OK	984	890	123	68	593	382
HI	34	31	3	1	38	10	OR	640	565	92	45	533	300
ID	306	271	66	22	190	111	PA	2,321	2,137	313	207	2,301	1,660
IL	3,809	3,552	527	407	2,628	2,095	RI	229	208	27	17	227	162
IN	1,713	1,564	245	155	1,327	917	SC	511	453	94	26	489	208
IA	888	795	121	73	649	168	SD	156	137	22	12	100	69
KS	1,621	1,471	192	125	1,168	733	TN	1,028	915	170	63	878	403
KY	725	652	96	54	479	287	TX	3,916	3,598	631	183	2,488	1,062
LA	737	686	304	50	763	266	UT	1,255	1,169	177	117	793	576
ME	23	16	5	1	30	6	VT	39	29	8	3	40	19
MD	834	780	86	62	669	512	VA	956	866	128	65	883	546
MA	1,325	1,222	169	102	1,344	912	WA	900	807	155	74	689	392
MI	3,275	3,038	477	348	2,469	1,836	WV	368	336	60	31	331	212
MN	1,297	1,182	245	116	1,097	625	WI	1,411	1,281	256	129	1,298	779
MS	435	396	72	24	319	142	WY	156	139	25	14	107	66

[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).

No. 923. Public Drinking Water Systems by Size of Community Served and Source of Water: 2000

[**As of September.** Covers systems that provide water for human consumption through pipes and other constructed conveyances to a least 15 service connection or serve an average of at least 25 persons for at least 60 days a year. Based on reported data in the Safe Drinking Water Information System maintained by the Environmental Protection Agency]

Type of system	Total	Size of community served					Water source	
		500 or fewer persons	501 to 3,300 persons	3,301 to 10,000 persons	10,001 to 100,000	100,000 persons or more	Ground water	Surface water
Total systems	**167,833**	**139,677**	**19,620**	**4,684**	**3,493**	**359**	**153,697**	**14,136**
COMMUNITY WATER SYSTEMS [1]								
Number of systems	54,064	31,688	14,149	4,458	3,416	353	42,661	11,403
Percent of systems	100	59	26	8	6	1	79	21
Population served	263,926	5,149	19,931	25,854	96,709	116,283	85,868	178,058
Percent of population	100	2	8	10	37	44	33	67
NONTRANSIENT NONCOMMUNITY WATER SYSTEM [2]								
Number of systems	20,559	17,598	2,839	96	23	3	19,738	821
Percent of systems	100	86	14	-	-	-	96	4
Population served	6,917	2,440	2,796	480	621	580	5,984	932
Percent of population	100	35	40	7	9	8	87	13
TRANSIENT NONCOMMUNITY WATER SYSTEM [3]								
Number of systems	93,210	90,391	2,632	130	54	3	91,298	1,912
Percent of systems	100	97	3	-	-	-	98	2
Population served	12,935	7,521	2,618	732	1,329	735	12,017	917
Percent of population	100	58	20	6	10	6	93	7

- Represents zero. [1] A public water system that supplies water to the same population year-round. [2] A public water system that regularly supplies water to at least 25 of the same people at least 6 months per year, but not year-round. Some examples are schools, factories, and office buildings which have their own water systems. [3] A public water system that provides water in a place such as a gas station or campground where people do not remain for long periods of time.

Source: U.S. Environmental Protection Agency, Internet site <http://www.epa.gov/safewater/data/getdata.html> (accessed 01 February 2001).

No. 924. Wastewater Treatment Facilities: 1988 to 1996

[Covers treatment facilities, which are structures designed to treat wastewater, storm water, or combined sewer overflows prior to discharging to the environment. Treatment is accomplished by subjecting the wastewater to a combination of physical, chemical, and/or biological processes that reduce the concentration of contaminants]

Level of treatment	Number of facilities			1996		
				Present design capacity (mgd [1])	Number of persons served	
	1988	1992	1996		Total	Percent of United States
Total	**15,591**	**15,613**	**16,024**	**42,225**	**189,710,899**	**71.8**
Nondischarge [2]	1,854	1,981	2,032	1,421	7,660,876	2.9
Less than secondary	1,789	868	176	3,054	17,177,492	6.5
Secondary	8,536	9,086	9,388	17,734	81,944,349	31.0
Greater than secondary	3,412	3,678	4,428	20,016	82,928,182	31.4

[1] Millions of gallons per day. [2] Facilities that do not discharge effluent to surface waters.

Source: U.S. Environmental Protection Agency, Office of Wastewater Management, *1996 Clean Water Needs Survey Report to Congress*.