

# Energy Consumption & Expenditures

## Energy Sources: District Heat Tables

(6 pages, 31 kb)

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<p>These data are from the 1995 Commercial Buildings Energy Consumption Survey (CBECS), a national probability sample survey of commercial buildings sponsored by the Energy Information Administration, that provides information on the use of energy in commercial buildings in the United States. The 1995 CBECS was the sixth survey in a series begun in 1979. The data were collected from a sample of 6,639 buildings representing 4.6 million commercial buildings and 58.8 billion square feet of commercial floorspace in the U.S. The 1995 data are available for the four Census regions and nine Census division.</p> <p>Data provided here are in the public domain and may be reproduced without permission. appropriate credit would be appreciated. A suggested citation is "U.S. Department of Energy, Energy Information Administration, "A Look at Commercial Buildings in 1995: Characteristics, Energy Consumption, and Energy Expenditures."</p> <p><b>Electronic Products and Services</b></p> <p>Users can view and download selected pages, sections, or entire reports, search for information, download data and analysis applications, and find out about new information products and services.</p> <p><b>Contact:</b> Martha Johnson, Survey Manager (<a href="mailto:martha.johnson@eia.doe.gov">martha.johnson@eia.doe.gov</a>)</p> <p><b>World Wide Web:</b> <a href="http://www.eia.doe.gov/emeu/consumption">http://www.eia.doe.gov/emeu/consumption</a></p>	

**Table 30. Total District Heat Consumption and Expenditures, 1995**

Building Characteristics	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)	
	1.2	0.9	0.9	1.1	1.0	
RSE Column Factor:						
<b>All Buildings</b> .....	110	5,658	52	533	3,103	18.99
<b>Building Floorspace (square feet)</b>						
1,001 to 5,000 .....	Q	Q	Q	Q	Q	99.99
5,001 to 10,000 .....	Q	Q	Q	Q	Q	99.99
10,001 to 25,000 .....	25	370	15	38	174	27.49
25,001 to 50,000 .....	18	651	37	55	383	15.39
50,001 to 100,000 .....	11	744	71	60	400	18.66
100,001 to 200,000 .....	8	1,119	140	84	530	14.63
200,001 to 500,000 .....	4	1,211	305	94	557	17.58
Over 500,000 .....	1	1,351	918	93	521	20.25
<b>Principal Building Activity</b>						
Education .....	36	1,077	30	91	595	25.43
Food Sales .....	Q	Q	Q	Q	Q	99.99
Food Service .....	Q	Q	Q	Q	Q	99.99
Health Care .....	4	640	143	70	428	25.26
Lodging .....	11	616	Q	57	291	32.88
Mercantile and Service .....	Q	Q	Q	Q	Q	99.99
Office .....	Q	1,532	77	75	524	25.22
Public Assembly .....	Q	636	Q	Q	Q	22.61
Public Order and Safety .....	Q	Q	Q	Q	Q	99.99
Religious Worship .....	Q	Q	Q	Q	Q	99.99
Warehouse and Storage .....	Q	Q	Q	Q	Q	99.99
Other .....	Q	Q	Q	Q	Q	99.99
Vacant .....	Q	Q	Q	Q	Q	99.99
<b>Year Constructed</b>						
1919 or Before .....	Q	556	26	31	238	38.36
1920 to 1945 .....	Q	864	43	85	495	31.51
1946 to 1959 .....	13	939	70	57	328	27.10
1960 to 1969 .....	23	1,408	60	124	721	24.90
1970 to 1979 .....	15	965	64	89	532	23.12
1980 to 1989 .....	Q	508	Q	Q	Q	22.76
1990 to 1992 .....	Q	Q	Q	Q	Q	99.99
1993 to 1995 .....	Q	Q	Q	Q	Q	99.99
<b>Census Region and Division</b>						
Northeast .....	Q	1,768	73	135	863	29.44
New England .....	2	226	104	23	131	35.59
Middle Atlantic .....	Q	1,542	70	112	732	35.38
Midwest .....	35	1,902	54	173	1,100	22.09
East North Central .....	19	1,214	66	114	677	30.64
West North Central .....	16	688	42	60	423	32.98
South .....	Q	1,038	32	83	402	34.14
South Atlantic .....	Q	364	39	Q	215	44.67
East South Central .....	Q	Q	Q	Q	Q	99.99
West South Central .....	Q	Q	Q	Q	Q	99.99
West .....	18	949	Q	Q	Q	30.31
Mountain .....	6	Q	Q	Q	Q	28.05
Pacific .....	12	631	52	Q	Q	39.83
<b>Climate Zone: 45-Year Average</b>						
Fewer than 2,000 CDD and --						
More than 7,000 HDD .....	3	267	90	29	183	28.30
5,500-7,000 HDD .....	30	1,919	65	259	1,443	28.75
4,000-5,499 HDD .....	44	2,292	52	154	1,001	27.94
Fewer than 4,000 HDD .....	10	537	56	Q	Q	27.03
More than 2,000 CDD and --						
Fewer than 4,000 HDD .....	24	643	27	Q	192	38.83

See footnotes at end of table.

**Table 30. Total District Heat Consumption and Expenditures, 1995  
(Continued)**

Building Characteristics	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)	
	1.2	0.9	0.9	1.1	1.0	
RSE Column Factor:						
<b>Workers (main shift)</b>						
Fewer than 5 .....	Q	Q	Q	Q	Q	99.99
5 to 9 .....	Q	Q	Q	Q	Q	99.99
10 to 19 .....	Q	Q	Q	Q	Q	99.99
20 to 49 .....	16	617	38	66	391	23.44
50 to 99 .....	17	713	43	74	445	25.55
100 to 249 .....	8	886	109	66	391	21.01
250 or More .....	9	2,458	271	183	1,098	18.94
<b>Weekly Operating Hours</b>						
39 or Fewer .....	Q	Q	Q	Q	Q	99.99
40 to 48 .....	23	762	33	69	380	35.63
49 to 60 .....	Q	970	43	81	489	27.46
61 to 84 .....	12	628	52	44	296	31.42
85 to 167 .....	Q	840	Q	Q	Q	27.33
Open Continuously .....	32	2,320	72	203	1,215	25.82
<b>Ownership and Occupancy</b>						
Nongovernment Owned .....	50	2,789	56	295	1,730	30.57
Owner Occupied .....	44	2,482	57	283	1,638	31.41
Nonowner Occupied .....	Q	Q	Q	Q	Q	99.99
Unoccupied .....	Q	Q	Q	Q	Q	99.99
Government Owned .....	60	2,869	48	238	1,374	22.62
<b>Space in Building Vacant for at Least Three Consecutive Months</b>						
Yes .....	Q	1,572	86	84	554	23.71
No .....	92	4,086	45	449	2,550	21.19
<b>Energy Sources (more than one may apply)</b>						
Electricity .....	110	5,646	51	532	3,100	20.37
Natural Gas .....	30	2,343	79	194	1,277	22.77
Fuel Oil .....	20	2,174	110	163	1,069	19.94
District Heat .....	110	5,658	52	533	3,103	18.99
District Chilled Water .....	47	2,140	46	250	1,393	34.42
Propane .....	Q	Q	Q	Q	Q	99.99
Other .....	Q	Q	Q	Q	Q	99.99
<b>Energy End Uses (more than one may apply)</b>						
Buildings with Space Heating .....	109	5,642	52	532	3,102	18.99
Buildings with Cooling .....	95	5,128	54	488	2,835	20.95
Buildings with Water Heating .....	96	5,424	57	496	2,874	19.10
Buildings with Cooking .....	17	2,031	117	181	1,088	17.87
Buildings with Manufacturing .....	Q	Q	Q	Q	Q	99.99
Buildings with Electricity Generation .....	Q	2,434	115	188	1,302	21.86
<b>Space-Heating Energy Source</b>						
District Heat .....	109	5,606	51	530	3,084	19.04
District Heat Main .....	107	5,289	49	508	2,984	19.23
District Heat Secondary .....	Q	Q	Q	Q	Q	99.99
Other Excluding District Heat .....	Q	Q	Q	Q	Q	99.99
Buildings without Space Heating .....	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

**Table 30. Total District Heat Consumption and Expenditures, 1995  
(Continued)**

Building Characteristics	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures	RSE Row Factor
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)	
	1.2	0.9	0.9	1.1	1.0	
RSE Column Factor:						
<b>Primary Space-Heating Energy Source</b>						
Electricity .....	Q	Q	Q	Q	Q	99.99
Natural Gas .....	Q	Q	Q	Q	Q	99.99
Fuel Oil .....	Q	Q	Q	Q	Q	99.99
District Heat .....	107	5,289	49	508	2,984	19.23
Propane .....	Q	Q	Q	Q	Q	99.99
Other .....	Q	Q	Q	Q	Q	99.99
<b>Cooling Energy Source</b>						
District Heat .....	Q	Q	Q	Q	Q	99.99
Other Excluding District Heat .....	93	4,549	49	447	2,561	21.45
Buildings without Cooling .....	14	530	37	45	269	32.01
<b>Water-Heating Energy Source</b>						
District Heat .....	54	3,949	74	406	2,279	19.75
Other Excluding District Heat .....	42	1,475	35	89	595	31.28
Buildings without Water Heating .....	Q	Q	Q	Q	Q	99.99
<b>Cooking Energy Source</b>						
District Heat .....	5	591	110	76	483	20.56
Other Excluding District Heat .....	12	1,439	120	105	605	23.76
Buildings without Cooking .....	92	3,627	39	351	2,015	23.35
<b>Percent of Floorspace Heated</b>						
Not Heated .....	Q	Q	Q	Q	Q	99.99
1 to 50 .....	Q	Q	Q	Q	Q	99.99
51 to 99 .....	7	748	105	41	285	29.70
100 .....	101	4,828	48	488	2,798	20.29

(\*) = Value rounds to zero in the units displayed.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.

**Table 31. District Heat Consumption and Expenditure Intensities, 1995**

Building Characteristics	District Heat Consumption			District Heat Expenditures			RSE Row Factor
	per Building (thousand pounds)	per Square Foot (pounds)	per Worker (thousand pounds)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pound (dollars)	
	1.2	0.9	1.2	1.2	0.8	0.7	
RSE Column Factor:							
<b>All Buildings</b> .....	4,849	94.14	51.2	28.3	0.55	5.83	18.62
<b>Building Floorspace (square feet)</b>							
1,001 to 5,000 .....	Q	Q	Q	Q	Q	Q	99.99
5,001 to 10,000 .....	Q	Q	Q	Q	Q	Q	99.99
10,001 to 25,000 .....	1,559	103.56	68.1	7.1	0.47	4.55	34.66
25,001 to 50,000 .....	3,145	84.62	58.9	21.8	0.59	6.94	24.05
50,001 to 100,000 .....	5,731	81.02	41.0	38.0	0.54	6.63	26.37
100,001 to 200,000 .....	10,585	75.38	43.3	66.5	0.47	6.29	16.49
200,001 to 500,000 .....	23,667	77.72	53.4	140.1	0.46	5.92	16.48
Over 500,000 .....	63,104	68.71	29.2	354.1	0.39	5.61	19.45
<b>Principal Building Activity</b>							
Education .....	2,545	84.51	42.6	16.6	0.55	6.54	29.35
Food Sales .....	Q	Q	Q	Q	Q	Q	99.99
Food Service .....	Q	Q	Q	Q	Q	Q	99.99
Health Care .....	15,690	109.51	65.0	95.8	0.67	6.11	23.15
Lodging .....	Q	92.63	82.0	Q	0.47	5.10	25.06
Mercantile and Service .....	Q	Q	Q	Q	Q	Q	99.99
Office .....	3,770	49.28	15.8	26.2	0.34	6.94	20.60
Public Assembly .....	13,121	Q	Q	67.6	Q	5.15	18.93
Public Order and Safety .....	Q	Q	Q	Q	Q	Q	99.99
Religious Worship .....	Q	Q	Q	Q	Q	Q	99.99
Warehouse and Storage .....	Q	Q	Q	Q	Q	Q	99.99
Other .....	Q	Q	Q	Q	Q	Q	99.99
Vacant .....	Q	Q	Q	Q	Q	Q	99.99
<b>Year Constructed</b>							
1919 or Before .....	1,432	55.73	32.3	11.0	0.43	7.69	32.30
1920 to 1945 .....	4,191	98.36	39.5	24.4	0.57	5.82	31.58
1946 to 1959 .....	4,231	60.24	40.0	24.5	0.35	5.79	18.83
1960 to 1969 .....	5,308	88.27	45.2	30.8	0.51	5.81	27.04
1970 to 1979 .....	5,917	92.42	53.4	35.3	0.55	5.96	15.50
1980 to 1989 .....	Q	Q	Q	74.1	Q	Q	20.75
1990 to 1992 .....	Q	Q	Q	Q	Q	Q	99.99
1993 to 1995 .....	Q	Q	Q	Q	Q	Q	99.99
<b>Census Region and Division</b>							
Northeast .....	5,558	76.31	34.1	35.5	0.49	6.39	22.19
New England .....	10,507	100.91	40.7	60.4	0.58	5.74	22.12
Middle Atlantic .....	5,073	72.71	33.0	33.1	0.47	6.53	26.25
Midwest .....	4,960	91.17	64.9	31.4	0.58	6.34	18.04
East North Central .....	6,149	93.69	89.3	36.6	0.56	5.95	22.78
West North Central .....	3,624	86.73	42.6	25.7	0.61	7.09	22.03
South .....	2,588	80.25	48.0	12.5	0.39	4.83	21.73
South Atlantic .....	5,471	139.92	74.3	23.1	0.59	4.23	26.13
East South Central .....	Q	Q	Q	Q	Q	Q	99.99
West South Central .....	Q	Q	Q	Q	Q	Q	99.99
West .....	7,651	Q	Q	40.1	Q	5.24	35.14
Mountain .....	15,565	Q	Q	Q	Q	4.49	33.82
Pacific .....	3,646	70.65	29.2	Q	Q	6.86	99.99
<b>Climate Zone: 45-Year Average</b>							
Fewer than 2,000 CDD and --							
More than 7,000 HDD .....	9,925	110.09	47.6	61.6	0.68	6.21	23.34
5,500-7,000 HDD .....	8,724	134.98	112.6	48.6	0.75	5.57	26.64
4,000-5,499 HDD .....	3,511	67.32	30.4	22.8	0.44	6.48	24.63
Fewer than 4,000 HDD .....	5,241	93.65	36.4	29.7	0.53	5.67	31.23
More than 2,000 CDD and --							
Fewer than 4,000 HDD .....	1,676	Q	Q	8.1	0.30	Q	30.10

See footnotes at end of table.

**Table 31. District Heat Consumption and Expenditure Intensities, 1995 (Continued)**

Building Characteristics	District Heat Consumption			District Heat Expenditures			RSE Row Factor
	per Building (thousand pounds)	per Square Foot (pounds)	per Worker (thousand pounds)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pound (dollars)	
	1.2	0.9	1.2	1.2	0.8	0.7	
RSE Column Factor:							
<b>Workers (main shift)</b>							
Fewer than 5 .....	Q	Q	Q	Q	Q	Q	99.99
5 to 9 .....	Q	Q	Q	Q	Q	Q	99.99
10 to 19 .....	Q	Q	Q	Q	Q	Q	99.99
20 to 49 .....	4,015	106.84	143.0	23.8	0.63	5.93	24.36
50 to 99 .....	4,429	103.56	69.2	26.7	0.62	6.02	23.62
100 to 249 .....	8,144	74.51	53.1	48.2	0.44	5.92	13.58
250 or More .....	20,234	74.62	25.1	121.1	0.45	5.98	16.61
<b>Weekly Operating Hours</b>							
39 or Fewer .....	Q	Q	Q	Q	Q	Q	99.99
40 to 48 .....	2,942	Q	63.4	16.2	0.50	Q	35.94
49 to 60 .....	3,565	83.27	32.5	21.6	0.50	6.05	22.63
61 to 84 .....	3,692	70.74	38.4	24.7	0.47	6.68	23.49
85 to 167 .....	12,091	Q	Q	61.9	Q	5.12	12.98
Open Continuously .....	6,357	87.69	47.8	38.0	0.52	5.97	17.48
<b>Ownership and Occupancy</b>							
Nongovernment Owned .....	5,936	105.65	55.0	34.9	0.62	5.87	26.66
Owner Occupied .....	6,475	114.17	65.0	37.4	0.66	5.78	27.59
Nonowner Occupied .....	Q	Q	Q	Q	Q	Q	99.99
Unoccupied .....	Q	Q	Q	Q	Q	Q	99.99
Government Owned .....	3,952	82.95	47.1	22.8	0.48	5.77	18.74
<b>Space in Building Vacant for at Least Three Consecutive Months</b>							
Yes .....	4,582	53.43	21.0	30.2	0.35	6.59	18.43
No .....	4,902	109.80	70.0	27.9	0.62	5.68	21.56
<b>Energy Sources (more than one may apply)</b>							
Electricity .....	4,844	94.22	51.2	28.2	0.55	5.83	15.81
Natural Gas .....	6,543	83.01	39.6	43.0	0.54	6.56	19.32
Fuel Oil .....	8,229	74.76	41.0	54.1	0.49	6.58	14.12
District Heat .....	4,849	94.14	51.2	28.3	0.55	5.83	19.73
District Chilled Water .....	5,366	116.82	68.0	29.9	0.65	5.57	26.74
Propane .....	Q	Q	Q	Q	Q	Q	99.99
Other .....	Q	Q	Q	Q	Q	Q	99.99
<b>Energy End Uses (more than one may apply)</b>							
Buildings with Space Heating .....	4,865	94.38	51.1	28.3	0.55	5.83	18.62
Buildings with Cooling .....	5,111	95.11	49.9	29.7	0.55	5.81	19.88
Buildings with Water Heating .....	5,176	91.35	49.4	30.0	0.53	5.80	19.00
Buildings with Cooking .....	10,446	89.33	40.3	62.7	0.54	6.00	16.19
Buildings with Manufacturing .....	Q	Q	Q	Q	Q	Q	99.99
Buildings with Electricity Generation .....	8,902	77.10	43.8	61.8	0.54	6.94	16.33
<b>Space-Heating Energy Source</b>							
District Heat .....	4,855	94.55	51.1	28.2	0.55	5.82	18.76
District Heat Main .....	4,731	95.98	51.4	27.8	0.56	5.88	19.05
District Heat Secondary .....	Q	Q	Q	Q	Q	Q	99.99
Other Excluding District Heat .....	Q	Q	Q	Q	Q	Q	99.99
Buildings without Space Heating .....	Q	Q	Q	Q	Q	Q	99.99

See footnotes at end of table.

**Table 31. District Heat Consumption and Expenditure Intensities, 1995 (Continued)**

Building Characteristics	District Heat Consumption			District Heat Expenditures			RSE Row Factor
	per Building (thousand pounds)	per Square Foot (pounds)	per Worker (thousand pounds)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pound (dollars)	
	1.2	0.9	1.2	1.2	0.8	0.7	
RSE Column Factor:							
<b>Primary Space-Heating</b>							
<b>Energy Source</b>							
Electricity .....	Q	Q	Q	Q	Q	Q	99.99
Natural Gas .....	Q	Q	Q	Q	Q	Q	99.99
Fuel Oil .....	Q	Q	Q	Q	Q	Q	99.99
District Heat .....	4,731	95.98	51.4	27.8	0.56	5.88	19.05
Propane .....	Q	Q	Q	Q	Q	Q	99.99
Other .....	Q	Q	Q	Q	Q	Q	99.99
<b>Cooling Energy Source</b>							
District Heat .....	Q	Q	Q	Q	Q	Q	99.99
Other Excluding District Heat .....	4,790	98.34	52.3	27.4	0.56	5.72	21.84
Buildings without Cooling .....	3,115	84.74	Q	18.6	0.51	5.99	29.64
<b>Water-Heating Energy Source</b>							
District Heat .....	7,586	102.89	56.9	42.6	0.58	5.61	20.14
Other Excluding District Heat .....	2,115	60.46	30.9	14.1	0.40	6.67	20.69
Buildings without Water Heating .....	Q	Q	Q	Q	Q	Q	99.99
<b>Cooking Energy Source</b>							
District Heat .....	14,172	128.80	66.3	90.0	0.82	6.35	23.34
Other Excluding District Heat .....	8,776	73.11	31.4	50.4	0.42	5.75	22.19
Buildings without Cooking .....	3,798	96.84	59.4	21.8	0.56	5.74	24.28
<b>Percent of Floorspace Heated</b>							
Not Heated .....	Q	Q	Q	Q	Q	Q	99.99
1 to 50 .....	Q	Q	Q	Q	Q	Q	99.99
51 to 99 .....	5,766	54.84	34.3	40.0	0.38	6.94	22.73
100 .....	4,813	101.13	53.2	27.6	0.58	5.73	20.39

NF = No applicable RSE row factor.

Q = Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or data were reported for fewer than 20 buildings.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption Survey.