

# Energy Consumption & Expenditures

## Electricity Peak Demand by: Peak Demand Intensity and Load (percentile) (3 pages, 20 kb)

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**Table 19. Distribution of Peak Watts per Square Foot and Load Factors, 1995**

Building Characteristics	All Demand-Metered Buildings			Peak Watts per Square Foot			Load Factor			RSE Row Factor
	Number of Buildings (thousand)	Total Floorspace (million square feet)	Total Electricity Consumed (billion kWh)	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	
RSE Column Factor:	1.1	0.9	1.0							
All Buildings .....	2,223	38,705	579	2.72	5.40	9.71	.164	.253	.357	5.54
Building Floorspace (square feet)										
1,001 to 5,000 .....	957	2,619	74	4.67	8.00	15.11	.156	.239	.357	8.89
5,001 to 10,000 .....	504	3,654	48	2.57	5.20	8.15	.155	.248	.325	10.48
10,001 to 25,000 .....	468	7,488	83	1.92	3.26	5.31	.180	.246	.350	10.51
25,001 to 50,000 .....	151	5,455	73	2.02	3.63	6.40	.220	.295	.404	8.84
50,001 to 100,000 .....	88	6,114	87	1.85	3.20	5.37	.239	.337	.447	7.64
100,001 to 200,000 .....	36	5,182	74	1.62	3.52	5.47	.291	.393	.515	9.00
200,001 to 500,000 .....	14	4,222	74	1.63	3.10	5.57	.321	.458	.574	13.21
Over 500,000 .....	4	3,971	65	1.81	3.16	4.48	.443	.521	.630	11.00
Principal Building Activity										
Education .....	198	5,448	48	2.33	4.29	9.33	.156	.210	.281	9.86
Food Sales .....	99	486	27	9.71	14.67	22.00	.373	.463	.590	17.06
Food Service .....	189	926	39	7.50	12.67	23.20	.241	.333	.406	18.37
Health Care .....	72	1,818	49	4.00	5.89	10.22	.187	.253	.408	13.21
Lodging .....	89	2,626	43	2.55	4.89	8.33	.270	.364	.440	13.40
Mercantile and Service .....	644	8,286	111	2.36	4.91	8.80	.159	.249	.327	9.94
Office .....	349	7,728	152	3.40	6.00	7.99	.187	.285	.357	11.52
Public Assembly .....	145	2,487	37	3.33	5.52	8.29	.129	.197	.274	14.59
Public Order and Safety .....	40	832	11	2.24	5.00	5.14	.198	.280	.404	28.88
Religious Worship .....	102	1,468	6	2.40	4.20	8.40	.079	.092	.179	18.90
Warehouse and Storage .....	187	5,209	37	1.23	2.22	3.40	.171	.265	.401	15.64
Other .....	49	705	16	7.00	7.33	17.47	.041	.227	.272	29.70
Vacant .....	59	685	3	.80	2.40	3.20	.135	.189	.312	25.21
Year Constructed										
1919 or Before .....	163	2,024	23	1.92	4.00	8.57	.152	.231	.331	19.45
1920 to 1945 .....	234	4,099	38	2.00	4.67	7.57	.154	.240	.341	13.84
1946 to 1959 .....	411	6,017	70	2.25	4.24	7.37	.184	.231	.316	11.97
1960 to 1969 .....	337	7,459	109	2.64	5.85	10.29	.162	.266	.389	10.67
1970 to 1979 .....	466	7,746	136	3.20	6.20	10.40	.179	.259	.374	8.96
1980 to 1989 .....	464	8,381	143	3.12	6.00	12.67	.160	.269	.377	9.33
1990 to 1992 .....	83	1,711	34	5.88	8.00	15.00	.178	.292	.409	14.37
1993 to 1995 .....	64	1,268	24	2.22	4.91	10.50	.197	.295	.405	20.49
Census Region and Division										
Northeast .....	455	8,599	109	2.25	3.67	7.43	.195	.260	.384	10.47
New England .....	82	1,575	19	3.00	5.25	10.40	.189	.295	.406	15.92
Middle Atlantic .....	373	7,025	90	2.22	3.29	7.33	.195	.246	.356	12.57
Midwest .....	486	8,751	125	2.17	5.10	8.67	.164	.238	.331	11.04
East North Central .....	313	5,868	77	1.89	4.50	7.58	.159	.238	.336	13.69
West North Central .....	173	2,883	48	3.10	6.80	12.80	.175	.228	.319	18.19
South .....	855	14,365	228	3.20	5.80	10.00	.171	.261	.357	8.30
South Atlantic .....	316	6,977	119	3.28	6.67	8.65	.181	.294	.377	10.00
East South Central .....	159	2,438	38	4.25	6.56	11.56	.180	.253	.393	26.60
West South Central .....	380	4,950	71	3.00	5.20	10.00	.160	.249	.335	10.95
West .....	426	6,989	117	2.80	6.67	12.00	.136	.244	.373	14.73
Mountain .....	149	2,425	37	3.00	6.82	12.80	.102	.244	.373	30.10
Pacific .....	277	4,564	80	2.55	6.65	11.33	.145	.244	.374	17.59
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD .....	183	2,983	40	3.10	5.78	9.67	.211	.263	.374	18.35
5,500-7,000 HDD .....	522	9,403	123	2.22	5.00	8.80	.171	.238	.336	10.93
4,000-5,499 HDD .....	455	10,174	161	2.13	4.00	8.60	.164	.251	.364	11.57
Fewer than 4,000 HDD .....	514	7,833	120	3.33	6.67	10.50	.132	.257	.373	16.18
More than 2,000 CDD and --										
Fewer than 4,000 HDD .....	548	8,312	135	3.20	5.41	10.47	.188	.253	.354	11.04

See footnotes at end of table.

**Table 19. Distribution of Peak Watts per Square Foot and Load Factors, 1995 (Continued)**

Building Characteristics	All Demand-Metered Buildings			Peak Watts per Square Foot			Load Factor			RSE Row Factor
	Number of Buildings (thousand)	Total Floorspace (million square feet)	Total Electricity Consumed (billion kWh)	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	
RSE Column Factor:	1.1	0.9	1.0							
Workers (main shift)										
Fewer than 5 .....	984	6,320	64	2.55	5.33	10.40	.142	.218	.316	10.04
5 to 9 .....	453	4,148	48	2.72	5.27	9.33	.179	.268	.349	11.72
10 to 19 .....	325	4,168	56	3.00	6.11	10.00	.197	.253	.364	11.60
20 to 49 .....	276	6,657	96	2.98	5.50	10.29	.227	.314	.409	9.31
50 to 99 .....	101	5,412	71	2.60	4.20	6.63	.215	.330	.449	9.17
100 to 249 .....	55	4,511	75	2.59	4.94	7.84	.277	.366	.475	10.04
250 or More .....	30	7,488	167	3.30	5.07	7.16	.334	.454	.568	10.89
Weekly Operating Hours										
39 or Fewer .....	235	2,137	12	1.67	4.86	8.29	.084	.142	.222	16.50
40 to 48 .....	582	8,547	83	2.72	4.47	8.80	.158	.217	.292	9.32
49 to 60 .....	511	8,239	109	2.36	4.62	7.38	.160	.240	.315	11.51
61 to 84 .....	341	7,022	92	2.40	5.10	9.33	.218	.276	.357	8.40
85 to 167 .....	291	4,427	94	5.52	10.20	16.50	.270	.362	.461	9.69
Open Continuously .....	262	8,332	189	3.33	5.80	18.15	.253	.374	.526	9.17
Ownership and Occupancy										
Nongovernment Owned .....	1,913	29,885	440	2.74	5.60	9.71	.160	.255	.357	5.82
Owner Occupied .....	1,504	23,153	351	2.80	5.60	9.60	.158	.253	.355	6.09
Nonowner Occupied .....	374	6,457	88	2.80	5.80	10.47	.171	.267	.389	11.45
Unoccupied .....	Q	Q	Q	.67	1.56	2.86	.152	.184	.312	99.99
Government Owned .....	310	8,819	139	2.47	4.33	9.45	.197	.246	.354	10.58
Space in Building Vacant for at Least Three Consecutive Months										
Yes .....	288	9,712	124	1.60	3.20	5.45	.144	.246	.319	8.95
No .....	1,935	28,993	455	3.00	5.80	10.40	.171	.255	.362	5.85
Energy Sources (more than one may apply)										
Electricity .....	2,223	38,705	579	2.72	5.40	9.71	.164	.253	.357	5.54
Natural Gas .....	1,401	26,670	381	2.50	5.10	8.83	.166	.255	.350	6.81
Fuel Oil .....	264	10,188	177	2.46	4.33	7.43	.178	.268	.390	10.78
District Heat .....	84	4,329	82	3.17	5.00	7.74	.223	.314	.462	23.83
District Chilled Water .....	43	1,935	43	3.33	4.04	12.96	.228	.342	.418	24.53
Propane .....	270	3,386	52	3.26	5.78	12.40	.177	.247	.377	14.84
Other .....	90	1,522	18	1.82	4.33	6.70	.145	.223	.308	20.32
Energy End Uses (more than one may apply)										
Buildings with Space Heating .....	2,091	36,945	563	2.87	5.56	10.00	.169	.253	.356	5.42
Buildings with Cooling .....	1,887	35,079	554	3.17	5.78	10.25	.180	.256	.360	5.41
Buildings with Water Heating .....	1,879	35,726	557	3.00	5.85	10.40	.176	.257	.361	5.60
Buildings with Cooking .....	523	14,876	283	4.00	8.14	13.20	.200	.312	.429	6.90
Buildings with Manufacturing .....	121	2,772	37	3.08	3.84	8.80	.155	.228	.314	17.61
Buildings with Electricity Generation .....	162	10,470	205	3.26	5.00	8.50	.223	.368	.478	8.86
Space-Heating Energy Source										
Electricity .....	783	15,383	272	3.67	6.89	12.40	.179	.266	.388	7.97
Electricity Main .....	546	9,447	184	4.44	8.00	12.92	.162	.264	.374	9.67
Electricity Secondary .....	237	5,937	88	2.72	5.10	8.86	.205	.268	.407	10.16
Other Excluding Electricity .....	1,308	21,562	291	2.47	4.80	8.60	.162	.248	.340	6.08
Buildings without Space Heating .....	132	1,759	16	.72	2.22	6.40	.155	.230	.418	21.31
Primary Space-Heating Energy Source										
Electricity .....	546	9,447	184	4.44	8.00	12.92	.162	.264	.374	9.67
Natural Gas .....	1,168	19,752	258	2.42	4.90	8.74	.160	.251	.340	6.77
Fuel Oil .....	158	2,413	20	2.40	3.93	7.09	.173	.221	.324	18.82
District Heat .....	82	3,992	77	3.24	5.00	7.96	.223	.313	.460	16.81
Propane .....	100	765	15	3.33	6.67	15.11	.197	.357	.458	22.47
Other .....	Q	Q	Q	3.08	3.09	6.70	.248	.248	.390	99.99

See footnotes at end of table.

**Table 19. Distribution of Peak Watts per Square Foot and Load Factors, 1995 (Continued)**

Building Characteristics	All Demand-Metered Buildings			Peak Watts per Square Foot			Load Factor			RSE Row Factor
	Number of Buildings (thousand)	Total Floorspace (million square feet)	Total Electricity Consumed (billion kWh)	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	
RSE Column Factor:	1.1	0.9	1.0	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	
Cooling Energy Source										
Electricity .....	1,824	33,533	525	3.20	5.78	10.00	.179	.256	.358	5.47
Other Excluding Electricity .....	63	1,546	29	2.72	4.91	20.00	.208	.289	.418	25.63
Buildings without Cooling .....	336	3,626	24	1.27	2.53	6.20	.145	.218	.303	16.03
Water-Heating Energy Source										
Electricity .....	846	15,982	256	3.08	5.85	10.50	.178	.267	.371	8.24
Other Excluding Electricity .....	1,033	19,743	301	2.93	5.80	9.71	.175	.253	.357	5.77
Buildings without Water Heating .....	344	2,979	22	1.47	3.29	5.55	.145	.218	.317	12.91
Cooking Energy Source										
Electricity .....	299	8,899	184	4.75	9.60	15.42	.211	.336	.461	8.57
Other Excluding Electricity .....	224	5,977	99	3.43	6.82	11.06	.178	.289	.365	11.60
Buildings without Cooking .....	1,700	23,828	295	2.43	4.91	8.31	.158	.240	.341	6.59
Percent of Floorspace Heated										
Not Heated .....	132	1,759	16	.72	2.22	6.40	.155	.230	.418	21.31
1 to 50 .....	242	3,971	30	1.50	2.80	5.60	.142	.205	.297	15.29
51 to 99 .....	326	5,761	98	2.71	5.33	8.91	.197	.269	.349	11.34
100 .....	1,523	27,214	434	3.32	6.10	10.50	.171	.260	.358	5.09
Percent of Floorspace Cooled										
Not Cooled .....	336	3,626	24	1.27	2.53	6.20	.145	.218	.303	16.03
1 to 50 .....	458	9,790	74	2.00	3.26	6.00	.162	.225	.294	10.00
51 to 99 .....	382	9,322	169	3.64	5.98	9.33	.188	.272	.352	8.64
100 .....	1,047	15,967	311	4.00	7.00	11.06	.187	.272	.382	6.89
Percent Lit when Open										
Zero .....	Q	Q	Q	1.33	1.33	2.40	.092	.158	.158	99.99
1 to 50 .....	272	3,298	25	2.00	3.64	7.33	.132	.213	.276	16.72
51 to 99 .....	439	6,801	93	2.95	5.78	9.39	.160	.263	.349	9.46
100 .....	1,463	28,242	459	3.00	5.75	10.47	.187	.261	.374	6.00
Building Not in Use/ Electricity Not Used .....	Q	Q	Q	.40	.67	1.56	.142	.152	.249	99.99
Percent Lit when Closed										
Zero .....	699	7,669	66	2.00	4.20	8.50	.137	.217	.281	10.26
1 to 50 .....	1,180	20,940	290	3.08	6.00	10.40	.187	.263	.358	6.58
51 to 100 .....	47	1,480	33	3.17	4.00	7.75	.235	.260	.348	27.93
Never Closed .....	262	8,321	189	3.33	5.80	18.15	.253	.374	.526	9.20
Building Not in Use/ Electricity Not Used .....	Q	Q	Q	.40	.67	1.56	.142	.152	.249	99.99
Annual Consumption (kilowatthours)										
10,000 or Less .....	160	579	1	.91	1.60	4.67	.081	.128	.163	22.78
10,001 to 50,000 .....	705	4,362	20	2.36	4.31	7.50	.132	.197	.248	11.82
50,001 to 100,000 .....	484	4,653	35	2.64	4.67	10.00	.195	.266	.331	12.91
100,001 to 500,000 .....	682	11,229	146	4.25	7.80	13.80	.247	.336	.432	7.16
500,001 to 1,000,000 .....	100	4,466	70	4.09	6.68	11.82	.318	.386	.525	9.95
1,000,001 to 5,000,000 .....	79	8,205	160	4.43	6.35	9.87	.365	.450	.568	8.31
Over 5,000,000 .....	13	5,211	147	4.48	6.35	10.36	.468	.563	.651	14.02
Peak Electricity Demand (kilowatts)										
10 or Less .....	284	1,311	4	1.07	1.82	3.33	.142	.214	.281	15.37
11 to 25 .....	589	3,621	23	2.36	4.36	7.43	.169	.235	.317	13.37
26 to 50 .....	561	5,062	53	3.05	6.20	10.80	.179	.268	.374	10.74
51 to 100 .....	387	5,699	63	4.16	7.25	13.75	.162	.255	.350	12.06
101 to 250 .....	262	7,670	109	4.16	7.49	13.80	.188	.319	.438	7.86
251 to 1,000 .....	116	8,883	164	4.87	7.34	14.00	.202	.352	.471	8.73
Over 1,000 .....	23	6,458	162	5.39	10.00	46.53	.045	.389	.549	10.90

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.