

**Table 3.23. Electricity Consumption and Conditional Energy Intensity
for Buildings Cooled with Electricity, 1992**

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		
		Heated with Elec- tricity	Not Heated with Elec- tricity		Heated with Elec- tricity	Not Heated with Elec- tricity		Heated with Elec- tricity	Not Heated with Elec- tricity	
	RSE Column Factor:	1.0	1.3	1.2	0.9	1.3	1.0	0.7	1.0	
All Buildings	682	340	342	54,628	23,798	30,830	12.5	14.3	11.1	4.59
Building Floorspace (square feet)										
1,001 to 5,000	85	43	42	4,853	1,881	2,972	17.5	22.9	14.1	7.18
5,001 to 10,000	65	30	35	5,452	2,137	3,315	11.9	14.3	10.5	8.73
10,001 to 25,000	90	42	47	8,132	3,414	4,718	11.0	12.4	10.0	7.94
25,001 to 50,000	91	48	44	8,043	3,429	4,614	11.4	13.9	9.5	10.58
50,001 to 100,000	84	35	49	6,970	2,621	4,350	12.0	13.3	11.2	10.15
100,001 to 200,000	88	43	44	7,898	3,019	4,880	11.1	14.4	9.1	12.09
200,001 to 500,000	90	41	49	6,535	2,912	3,623	13.7	14.1	13.4	12.94
Over 500,000	90	57	32	6,744	4,386	2,358	13.3	13.0	13.7	20.01
Principal Building Activity										
Education	59	22	36	6,912	1,954	4,958	8.5	11.5	7.3	9.08
Food Sales	32	14	18	725	277	448	44.3	50.0	40.7	16.43
Food Service	38	15	23	1,365	395	970	28.2	38.2	24.1	13.18
Health Care	38	15	23	1,605	625	981	23.5	23.3	23.6	11.67
Lodging	47	31	15	2,310	1,431	879	20.2	22.0	17.4	17.11
Mercantile and Service	120	65	55	10,669	4,869	5,800	11.3	13.3	9.5	8.39
Office	195	103	92	11,576	5,320	6,256	16.8	19.4	14.7	8.39
Parking Garage	6	4	Q	800	514	Q	7.5	Q	Q	39.18
Public Assembly	47	28	19	3,966	2,167	1,799	11.8	12.8	10.6	13.40
Public Order and Safety	8	Q	6	726	Q	550	10.6	Q	10.3	28.15
Religious Worship	8	4	5	3,090	1,178	1,912	2.7	3.2	2.4	14.40
Warehouse and Storage	54	27	27	7,783	3,905	3,878	6.9	6.8	6.9	12.79
Other	20	7	12	915	254	661	21.3	28.7	18.5	19.49
Vacant	11	4	7	2,187	733	1,454	4.9	5.4	4.7	24.15
Year Constructed										
1899 or Before	10	4	7	1,289	348	941	8.0	10.1	7.2	24.71
1900 to 1919	17	6	11	2,691	756	1,936	6.2	7.5	5.7	20.22
1920 to 1945	57	22	35	6,308	2,003	4,305	9.0	10.9	8.0	15.06
1946 to 1959	80	31	49	7,934	2,626	5,308	10.1	11.8	9.3	10.29
1960 to 1969	135	50	84	10,231	3,619	6,612	13.2	13.9	12.8	9.55
1970 to 1979	166	91	75	11,375	5,726	5,648	14.6	15.8	13.3	8.17
1980 to 1989	188	122	65	12,692	7,773	4,919	14.8	15.8	13.3	8.17
1990 to 1992	29	15	15	2,108	947	1,161	14.0	15.6	12.7	16.56
Census Region and Division										
Northeast	110	52	58	10,729	3,874	6,855	10.3	13.5	8.4	9.96
New England	26	12	14	2,572	909	1,663	10.0	13.3	8.2	18.71
Middle Atlantic	84	40	44	8,157	2,965	5,192	10.4	13.6	8.5	13.39
Midwest	157	53	104	13,544	4,274	9,270	11.6	12.3	11.2	9.46
East North Central	98	34	64	8,461	2,729	5,732	11.6	12.5	11.1	13.45
West North Central	59	18	41	5,083	1,545	3,538	11.6	11.9	11.5	13.91
South	269	161	108	20,609	10,857	9,751	13.1	14.8	11.1	7.27
South Atlantic	126	79	47	9,162	5,498	3,664	13.8	14.4	12.9	10.57
East South Central	60	36	24	4,318	2,003	2,315	13.9	17.9	10.4	13.03
West South Central	83	46	37	7,128	3,356	3,773	11.6	13.7	9.8	11.49
West	145	74	71	9,747	4,793	4,954	14.9	15.5	14.4	8.40
Mountain	47	21	26	2,905	1,256	1,649	16.2	16.9	15.7	17.27
Pacific	98	53	45	6,842	3,537	3,305	14.3	14.9	13.7	10.45

See footnotes at end of table.

**Table 3.23. Electricity Consumption and Conditional Energy Intensity
for Buildings Cooled with Electricity, 1992 (Continued)**

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	All Buildings Cooled with Electricity	Buildings Cooled with Electricity		All Buildings Cooled with Electricity	Buildings Cooled with Electricity		All Buildings Cooled with Electricity	Buildings Cooled with Electricity		
		Heated with Electricity	Not Heated with Electricity		Heated with Electricity	Not Heated with Electricity		Heated with Electricity	Not Heated with Electricity	
RSE Column Factor:	1.0	1.3	1.2	0.9	1.3	1.0	0.7	1.0	0.8	
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and --										
More than 7,000 HDD	44	13	30	3,969	1,067	2,902	11.0	12.6	10.4	16.15
5,500-7,000 HDD	162	60	102	14,369	4,918	9,451	11.3	12.2	10.8	10.99
4,000-5,499 HDD	152	78	74	12,854	5,458	7,396	11.8	14.3	10.0	9.07
Fewer than 4,000 HDD	178	91	86	12,441	5,590	6,852	14.3	16.4	12.6	11.62
More than 2,000 CDD and --										
Fewer than 4,000 HDD	146	97	49	10,994	6,764	4,230	13.3	14.3	11.6	11.25
Energy Sources (more than one may apply)										
Electricity	682	340	342	54,628	23,798	30,830	12.5	14.3	11.1	4.59
Natural Gas	478	183	294	39,546	13,081	26,466	12.1	14.0	11.1	5.60
Fuel Oil	179	84	95	11,474	4,558	6,916	15.6	18.4	13.7	9.96
District Heat	55	17	38	3,405	875	2,529	16.3	19.9	15.0	22.22
District Chilled Water	13	7	6	842	343	499	15.6	21.4	11.7	23.09
Propane	35	23	12	2,789	1,463	1,326	12.6	15.8	9.0	16.63
Any Other	9	5	4	1,107	642	466	8.2	7.8	8.9	28.54
Energy End Uses (more than one may apply)										
Heated Buildings	670	340	330	53,663	23,798	29,865	12.5	14.3	11.1	4.60
Buildings with A/C	682	340	342	54,628	23,798	30,830	12.5	14.3	11.1	4.59
Buildings with Water Heating	661	330	331	51,534	22,533	29,001	12.8	14.6	11.4	4.70
Buildings with Cooking	321	173	148	20,974	9,818	11,155	15.3	17.6	13.3	6.42
Buildings with Manufacturing	31	12	19	2,808	1,094	1,714	11.2	11.4	11.1	18.55
Workers (main shift)										
Less than 5	90	54	36	10,315	4,538	5,777	8.7	11.8	6.2	9.04
5 to 9	61	27	34	6,065	2,665	3,400	10.1	10.2	10.1	7.90
10 to 19	73	34	39	6,760	2,800	3,961	10.8	12.3	9.8	10.00
20 to 49	115	54	61	9,758	3,735	6,024	11.8	14.4	10.1	8.80
50 to 99	83	41	41	6,855	2,896	3,959	12.0	14.2	10.5	12.17
100 or More	260	130	130	14,874	7,164	7,710	17.5	18.1	16.8	8.85
Weekly Operating Hours										
39 or Fewer	19	7	12	4,401	1,238	3,163	4.4	5.9	3.8	12.13
40 to 48	121	63	59	12,148	5,124	7,024	10.0	12.2	8.4	8.46
49 to 60	113	55	59	11,675	4,779	6,896	9.7	11.4	8.5	8.56
61 to 84	132	54	78	10,906	4,872	6,034	12.1	11.1	12.9	10.34
85 to 167	119	62	57	7,292	3,347	3,944	16.4	18.5	14.5	9.33
Open Continuously	177	100	77	8,207	4,438	3,770	21.6	22.5	20.5	9.54
Ownership and Occupancy										
Nongovernment Owned	545	286	259	42,528	19,833	22,695	12.8	14.4	11.4	5.22
Owner Occupied	419	212	207	31,133	13,611	17,522	13.5	15.6	11.8	5.71
Single Establishment	329	162	167	23,385	9,806	13,579	14.1	16.5	12.3	6.49
Multiple Establishment	90	50	40	7,749	3,806	3,943	11.6	13.1	10.2	12.13
Nonowner Occupied	123	73	49	10,720	5,991	4,729	11.4	12.2	10.4	9.58
Single Establishment	61	37	24	4,658	2,884	1,773	13.1	12.8	13.6	17.79
Multiple Establishment	62	36	25	6,063	3,107	2,956	10.2	11.7	8.5	11.26
Vacant	Q	Q	Q	674	Q	Q	4.4	Q	Q	43.25
Government Owned	137	54	83	12,100	3,965	8,135	11.3	13.6	10.2	8.83

See footnotes at end of table.

**Table 3.23. Electricity Consumption and Conditional Energy Intensity
for Buildings Cooled with Electricity, 1992 (Continued)**

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		
		Heated with Elec- tricity	Not Heated with Elec- tricity		Heated with Elec- tricity	Not Heated with Elec- tricity		Heated with Elec- tricity	Not Heated with Elec- tricity	
RSE Column Factor:	1.0	1.3	1.2	0.9	1.3	1.0	0.7	1.0	0.8	
Predominant Exterior Wall Material										
Masonry	484	234	250	40,311	16,780	23,530	12.0	14.0	10.6	4.95
Siding or Shingles	33	16	16	2,552	1,145	1,407	12.8	14.1	11.7	10.41
Metal Panels	51	31	20	4,727	2,449	2,279	10.8	12.7	8.8	14.08
Concrete Panels	59	32	27	4,237	2,122	2,114	14.0	15.1	12.8	14.07
Window Glass	39	21	18	1,893	974	919	20.8	21.5	20.0	21.37
Other	16	6	10	908	328	580	17.1	17.0	17.2	24.58
Predominant Roof Material										
Built-Up	340	171	169	25,503	11,644	13,858	13.3	14.7	12.2	6.13
Shingles (Not Wood)	83	36	47	8,420	2,925	5,494	9.9	12.2	8.6	11.31
Metal Surfacing	58	29	29	5,886	2,756	3,130	9.9	10.7	9.2	11.86
Synthetic or Rubber	147	74	73	10,130	4,215	5,915	14.5	17.5	12.4	7.18
Other	53	31	23	4,690	2,257	2,433	11.4	13.6	9.3	15.86
Space-Heating Energy Source										
Electricity	340	340	Q	23,798	23,798	Q	14.3	14.3	Q	5.68
Electricity Main	227	227	Q	14,385	14,385	Q	15.8	15.8	Q	6.24
Electricity Secondary	114	114	Q	9,413	9,413	Q	12.1	12.1	Q	9.57
Other Excluding Electricity	330	Q	330	29,865	Q	29,865	11.1	Q	11.1	5.00
Building Not Heated	11	Q	11	965	Q	965	11.7	Q	11.7	29.37
Main Space-Heating Energy Source										
Electricity	227	227	Q	14,385	14,385	Q	15.8	15.8	Q	6.24
Natural Gas	353	88	265	31,146	7,221	23,924	11.3	12.2	11.1	6.82
Fuel Oil	27	6	21	3,454	727	2,728	7.9	8.5	7.8	13.43
District Heat	51	16	36	3,184	796	2,387	16.1	19.7	14.9	16.86
Propane	7	2	6	786	249	537	9.2	6.6	10.4	22.98
Wood	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Any Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Replacement Energy Source for Main Heating										
Electricity Only	20	5	15	2,249	471	1,779	8.9	9.9	8.6	14.31
Natural Gas Only	21	14	7	1,953	1,308	646	11.0	10.8	11.2	19.62
Fuel Oil Only	72	24	48	4,866	1,368	3,498	14.8	17.6	13.7	14.37
Propane Only	19	6	13	1,799	520	1,279	10.8	12.3	10.2	18.66
Any Other Single Energy Source	3	Q	Q	350	Q	286	9.3	Q	9.2	29.25
More than One Energy Source	8	Q	6	667	Q	549	12.4	Q	10.9	25.10
No Replacement Energy Source	526	288	238	41,778	19,949	21,830	12.6	14.4	10.9	5.21
Building Not Heated	11	Q	11	965	Q	965	11.7	Q	11.7	29.37
Water-Heating Energy Source										
Electricity	303	209	94	23,274	14,620	8,654	13.0	14.3	10.9	6.96
Other Excluding Electricity	357	121	237	28,260	7,913	20,347	12.6	15.2	11.6	6.00
Water Heating Not Performed	21	10	11	3,094	1,265	1,829	6.8	8.1	6.0	11.74
Cooking Energy Source										
Electricity	188	117	71	11,353	6,542	4,811	16.5	17.9	14.7	7.88
Other Excluding Electricity	133	55	78	9,621	3,276	6,344	13.9	16.9	12.3	9.20
Cooking Not Performed	361	168	193	33,654	13,979	19,675	10.7	12.0	9.8	5.66

See footnotes at end of table.

**Table 3.23. Electricity Consumption and Conditional Energy Intensity
for Buildings Cooled with Electricity, 1992 (Continued)**

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		
		Heated with Elec- tricity	Not Heated with Elec- tricity		Heated with Elec- tricity	Not Heated with Elec- tricity		Heated with Elec- tricity	Not Heated with Elec- tricity	
	RSE Column Factor:	1.0	1.3	1.2	0.9	1.3	1.0	0.7	1.0	
Percent of Floorspace Heated										
Not Heated	11	Q	11	965	Q	965	11.7	Q	11.7	29.37
1 to 50	66	43	24	9,697	5,408	4,290	6.8	7.9	5.5	13.12
51 to 99	119	69	50	9,165	4,411	4,753	12.9	15.6	10.5	9.07
100	486	229	257	34,800	13,978	20,822	14.0	16.4	12.3	5.19
Percent of Floorspace Cooled										
Not Cooled	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
1 to 50	134	53	81	21,068	8,224	12,843	6.4	6.4	6.3	6.82
51 to 99	213	105	108	13,370	5,804	7,566	15.9	18.1	14.3	7.09
100	334	182	152	20,191	9,769	10,421	16.6	18.7	14.6	6.24
Percent Lit when Open										
Not Lit	Q	Q	Q	609	Q	Q	4.6	Q	Q	43.77
1 to 50	35	14	21	7,053	2,230	4,823	4.9	6.4	4.3	11.89
51 to 99	150	85	65	12,684	6,805	5,879	11.8	12.4	11.1	7.42
100	494	240	254	34,283	14,594	19,689	14.4	16.5	12.9	5.34
Percent Lit when Closed										
Not Lit	311	162	149	24,694	10,968	13,725	12.6	14.8	10.8	6.14
1 to 50	345	167	177	28,308	12,141	16,167	12.2	13.8	11.0	6.01
51 to 99	16	6	10	980	439	541	16.6	14.6	18.3	21.25
100	10	4	6	646	250	397	14.9	16.3	13.9	24.21
Heating Equipment (more than one may apply)										
Heat Pumps	126	126	Q	8,143	8,135	Q	15.5	15.5	Q	8.12
Furnaces	143	58	85	14,814	5,542	9,271	9.7	10.5	9.2	8.14
Individual Space Heaters	228	151	78	19,131	11,458	7,673	11.9	13.1	10.1	7.08
District Heat	56	17	38	3,406	861	2,545	16.3	20.2	15.0	16.28
Boilers	232	90	143	18,680	6,314	12,366	12.4	14.2	11.5	6.88
Packaged Heating Units	208	118	91	15,480	8,268	7,212	13.5	14.2	12.6	8.06
Other	23	12	11	771	454	317	30.4	26.9	35.4	21.29
Cooling Equipment (more than one may apply)										
Residential-Type Central A/C	92	40	52	8,761	3,142	5,619	10.5	12.7	9.2	9.46
Heat Pumps	128	121	6	8,388	7,854	534	15.2	15.4	12.2	11.10
Individual A/C	167	91	75	17,734	7,932	9,802	9.4	11.5	7.7	8.71
District Chilled Water	13	7	6	842	343	500	15.6	21.4	11.7	23.09
Central Chillers	217	97	120	12,500	5,338	7,162	17.4	18.3	16.7	8.51
Packaged A/C Units	365	174	192	26,928	10,837	16,090	13.6	16.0	11.9	6.03
Swamp Coolers	32	14	17	2,063	892	1,170	15.3	16.1	14.7	20.22
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	NF
Lighting Equipment (more than one may apply)										
Incandescent	427	218	208	32,539	14,346	18,193	13.1	15.2	11.5	5.25
Standard Fluorescent	668	334	334	53,195	23,320	29,876	12.6	14.3	11.2	4.61
Compact Fluorescent	128	78	49	7,545	4,000	3,545	16.9	19.6	13.9	10.39
High-Intensity Discharge	193	100	93	15,194	7,339	7,855	12.7	13.6	11.9	8.16
Other	17	10	7	1,419	790	628	12.0	12.9	10.8	24.74

See footnotes at end of table.

Table 3.23. Electricity Consumption and Conditional Energy Intensity for Buildings Cooled with Electricity, 1992 (Continued)

Building Characteristics	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/sq. ft.)			RSE Row Factor
	All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		All Buildings Cooled with Elec- tricity	Buildings Cooled with Electricity		
		Heated with Elec- tricity	Not Heated with Elec- tricity		Heated with Elec- tricity	Not Heated with Elec- tricity		Heated with Elec- tricity	Not Heated with Elec- tricity	
	RSE Column Factor:	1.0	1.3	1.2	0.9	1.3	1.0	0.7	1.0	
Annual Consumption (kilowatthours)										
10,000 or Less	3	1	2	1,888	546	1,342	1.5	1.7	1.4	9.61
10,001 to 50,000	34	13	21	8,608	2,968	5,639	4.0	4.4	3.8	7.02
50,001 to 100,000	42	18	25	6,098	2,580	3,518	7.0	6.8	7.1	8.51
100,001 to 500,000	160	77	83	13,961	5,709	8,253	11.5	13.5	10.1	5.51
500,001 to 1,000,000	71	36	35	5,511	2,278	3,233	12.9	15.6	10.9	9.83
1,000,001 to 5,000,000	204	96	109	11,284	5,261	6,023	18.1	18.2	18.1	8.47
Over 5,000,000	166	100	66	7,277	4,455	2,821	22.9	22.5	23.4	11.94
Peak Electricity Demand (kilowatts)										
10 or Less	4	1	2	1,071	333	738	3.3	3.9	3.1	15.09
11 to 25	18	7	11	3,425	1,143	2,282	5.3	5.8	5.0	12.90
26 to 50	41	19	22	4,291	1,727	2,563	9.6	11.1	8.6	10.12
51 to 100	68	30	38	5,981	2,501	3,480	11.5	12.0	11.0	8.73
101 to 250	93	46	47	7,197	2,907	4,290	12.9	15.7	11.0	9.03
251 to 1,000	178	85	94	10,936	4,974	5,962	16.3	17.0	15.7	10.40
Over 1,000	160	90	70	7,412	4,272	3,141	21.5	21.0	22.2	12.83
Season of Peak Electricity Demand										
Summer	377	164	213	25,933	10,167	15,766	14.5	16.2	13.5	7.14
Winter	161	105	56	12,437	6,997	5,439	12.9	15.0	10.3	9.67
Summer and Winter	24	8	16	1,943	692	1,251	12.4	11.6	12.9	20.31
Building Generates Electricity										
Yes	176	93	83	9,374	4,768	4,605	18.8	19.6	18.0	9.22
No	506	247	259	45,254	19,029	26,225	11.2	13.0	9.9	4.96

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. • A/C = Air Conditioning. • 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 1992 Commercial Buildings Energy Consumption Survey.