

Table B38. Heating Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)								
	All Buildings*	Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
All Buildings*	4,645	3,982	476	1,864	819	65	579	953	205
Building Floorspace (Square Feet)									
1,001 to 5,000	2,552	2,100	258	1,039	415	Q	162	423	121
5,001 to 10,000	889	782	63	391	170	Q	105	214	Q
10,001 to 25,000	738	659	86	307	142	18	138	170	28
25,001 to 50,000	241	225	33	76	49	9	78	69	13
50,001 to 100,000	129	123	21	30	25	8	49	47	6
100,001 to 200,000	65	62	9	15	12	9	31	20	Q
200,001 to 500,000	25	24	5	5	5	4	13	7	2
Over 500,000	7	6	1	1	1	2	3	2	Q
Principal Building Activity									
Education	386	382	66	111	67	25	84	99	Q
Food Sales	226	188	Q	77	Q	N	Q	46	Q
Food Service	297	282	26	125	28	Q	36	103	Q
Health Care	129	124	22	61	21	1	22	28	Q
Inpatient	8	8	Q	Q	1	1	6	3	Q
Outpatient	121	116	19	58	19	Q	16	25	Q
Lodging	142	142	25	31	57	Q	42	31	Q
Retail (Other Than Mall).....	443	408	42	227	75	Q	30	97	Q
Office	824	802	113	362	157	16	123	214	33
Public Assembly	277	258	24	120	46	6	48	56	Q
Public Order and Safety	71	70	Q	41	Q	Q	13	16	Q
Religious Worship	370	359	54	193	71	Q	73	63	Q
Service	622	515	29	288	131	Q	49	96	60
Warehouse and Storage	597	316	32	156	98	Q	25	68	Q
Other	79	67	Q	35	17	Q	16	20	Q
Vacant	182	69	Q	36	Q	Q	Q	Q	Q
Year Constructed									
Before 1920	330	302	Q	151	65	Q	105	25	Q
1920 to 1945	527	442	31	235	72	12	103	63	Q
1946 to 1959	562	493	44	259	120	13	98	79	Q
1960 to 1969	579	524	50	242	114	13	82	106	24
1970 to 1979	731	648	82	330	130	6	65	176	40
1980 to 1989	707	618	102	252	119	4	43	209	40
1990 to 1999	876	719	120	299	152	8	56	226	35
2000 to 2003	334	236	39	96	47	Q	27	70	15
Census Region									
Northeast	726	672	47	310	122	17	227	95	22
Midwest	1,266	1,112	45	736	242	13	175	151	80
South	1,775	1,462	304	467	271	20	88	532	56
West	878	735	80	352	185	15	89	175	47
Climate Zone: 30-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	855	752	28	474	172	6	178	90	60
5,500-7,000 HDD	1,173	1,055	68	615	215	27	198	147	54
4,000-5,499 HDD	673	626	81	297	149	13	112	122	Q
Fewer than 4,000 HDD	1,276	1,051	213	368	220	12	64	356	45
2,000 CDD or More and --									
Fewer than 4,000 HDD	669	498	86	110	64	7	27	238	22

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Table B38. Heating Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)								
	All Buildings*	Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
All Buildings*	4,645	3,982	476	1,864	819	65	579	953	205
Number of Floors									
One	3,136	2,566	334	1,193	550	14	190	682	140
Two	1,031	960	97	487	174	19	194	207	50
Three	339	319	31	155	68	10	119	41	Q
Four to Nine	128	125	11	28	25	19	69	20	4
Ten or More	12	12	3	Q	2	3	6	3	1
Number of Workers (main shift)									
Fewer than 5	2,653	2,080	236	1,013	470	Q	216	366	125
5 to 9	778	733	89	399	120	Q	88	186	Q
10 to 19	563	536	64	244	102	Q	81	165	28
20 to 49	398	387	42	152	86	16	94	137	19
50 to 99	147	141	23	40	22	7	51	58	5
100 to 249	77	76	16	12	14	9	34	33	Q
250 or More	30	29	5	4	5	5	15	9	3
Weekly Operating Hours									
Fewer than 40	1,002	751	89	375	161	Q	72	132	40
40 to 48	1,117	1,037	131	506	236	12	145	227	55
49 to 60	1,062	965	102	481	197	18	141	226	48
61 to 84	591	535	67	255	84	11	93	132	25
85 to 167	400	331	31	122	48	9	49	129	Q
Open Continuously	475	364	55	125	93	10	79	107	24
Multibuilding Facility									
Not Part of a Multibuilding									
Facility	3,169	2,835	281	1,434	563	Q	405	696	153
College or University	83	80	10	Q	6	29	26	6	Q
Primary or Secondary School	254	243	47	68	59	Q	31	67	Q
Office Complex	111	101	21	31	17	Q	16	31	Q
Retail Complex	151	110	Q	51	34	N	Q	19	Q
Religious Campus or Complex	195	186	33	73	28	Q	42	42	Q
Health Care Complex	39	36	7	14	4	Q	10	10	Q
Lodging or Resort Complex	61	58	9	Q	23	Q	7	16	Q
Government Complex	87	70	Q	28	15	4	14	21	Q
Other	496	262	45	137	69	Q	23	44	18
Renovations in Buildings Constructed Before 1980 (more than one may apply)									
Any Type of Renovation									
Since 1980	1,018	953	95	471	217	18	221	206	37
Addition or Annex	256	246	29	135	61	2	62	59	Q
Reduction In Floorspace	22	22	Q	Q	Q	Q	8	Q	Q
Cosmetic Improvements	741	699	79	344	156	10	171	159	23
Wall or Roof Replacement	370	348	33	161	70	9	96	82	Q
Interior Wall									
Re-Configuration	411	395	29	204	106	7	106	84	Q
HVAC Equipment Upgrade	442	427	48	214	97	9	126	100	10
Lighting Upgrade	455	425	44	198	97	15	124	101	12
Window Replacement	310	295	26	145	89	6	91	55	Q
Plumbing System Upgrade	315	300	26	151	72	8	85	69	Q
Insulation Upgrade	227	217	15	128	45	3	48	40	Q
Other Renovation	19	19	Q	Q	Q	Q	9	Q	N
No Renovations Since 1980	1,710	1,455	119	746	284	33	232	242	78
Building Newer than 1980	1,917	1,573	261	647	318	14	126	504	89

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Table B38. Heating Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)								
	All Buildings*	Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
All Buildings*	4,645	3,982	476	1,864	819	65	579	953	205
Energy Sources (more than one may apply)									
Electricity	4,404	3,971	476	1,860	819	65	579	953	198
Natural Gas	2,391	2,344	152	1,314	429	24	432	586	85
Fuel Oil	451	443	21	211	94	4	178	54	40
District Heat	67	67	2	Q	5	65	Q	3	Q
District Chilled Water	33	32	Q	Q	Q	24	5	5	Q
Propane	502	489	44	259	162	Q	55	101	44
Other	132	132	Q	73	46	Q	24	17	48
Space-Heating Energy Sources (more than one may apply)									
Electricity	1,766	1,766	466	554	604	6	161	572	116
Natural Gas	2,165	2,165	124	1,273	399	4	397	529	80
Fuel Oil	360	360	6	188	79	Q	144	17	36
District Heat	65	65	2	Q	4	65	Q	3	Q
Propane	372	372	28	212	122	Q	30	79	40
Other	113	113	Q	65	40	N	18	Q	47
Primary Space-Heating Energy Source									
Electricity	1,258	1,258	371	296	305	Q	58	427	60
Natural Gas	1,999	1,999	85	1,212	361	Q	373	456	69
Fuel Oil	282	282	Q	145	39	N	121	Q	Q
District Heat	63	63	1	Q	4	63	Q	2	Q
Propane	308	308	Q	176	89	Q	Q	63	Q
Other	72	72	Q	Q	Q	N	Q	Q	Q
Energy End Uses (more than one may apply)									
Buildings with Space Heating	3,982	3,982	476	1,864	819	65	579	953	205
Buildings with Cooling	3,625	3,469	469	1,581	685	53	485	932	154
Buildings with Water Heating	3,472	3,337	397	1,585	657	59	546	828	172
Buildings with Cooking	801	764	92	314	131	9	184	241	30
Buildings with Manufacturing	119	111	9	57	39	Q	26	29	Q
Buildings with Electricity Generation	149	148	26	55	38	6	62	50	8
Percent of Floorspace Heated									
Not Heated	663	N	N	N	N	N	N	N	N
1 to 50	523	523	37	240	178	Q	30	109	29
51 to 99	498	498	61	241	114	5	77	138	22
100	2,962	2,962	378	1,383	527	58	472	706	153
Heating Equipment (more than one may apply)									
Heat Pumps	476	476	476	71	56	2	33	52	16
Packaged Heat Pumps	278	278	278	38	26	Q	18	36	Q
Split-System Heat Pumps	166	166	166	30	28	Q	9	17	Q
Individual Room Heat Pumps	58	58	58	9	9	Q	13	14	Q
Furnaces	1,864	1,864	71	1,864	334	Q	87	100	47
Individual Space Heaters	819	819	56	334	819	4	87	127	32
District Heat	65	65	2	Q	4	65	Q	3	Q
Boilers	579	579	33	87	87	Q	579	61	Q
Packaged Heating Units	953	953	52	100	127	3	61	953	19
Other	205	205	16	47	32	Q	Q	19	205

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Table B38. Heating Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)								
	All Buildings*	Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
All Buildings*	4,645	3,982	476	1,864	819	65	579	953	205
Cooling Equipment (more than one may apply)									
Residential-Type Central									
Air Conditioners	1,006	963	36	675	171	Q	127	184	29
Heat Pumps	492	481	448	85	57	2	39	51	16
Packaged Heat Pumps	288	287	263	48	27	Q	22	37	Q
Split-System Heat Pumps	174	163	154	34	28	Q	10	14	Q
Individual Room Heat Pumps	58	58	57	9	9	Q	14	14	Q
Individual Air Conditioners	742	718	41	302	321	12	169	102	47
District Chilled Water	33	32	Q	Q	Q	24	5	5	Q
Central Chillers	111	106	11	9	12	14	73	20	10
Packaged Air Conditioning									
Units	1,613	1,539	68	689	255	7	207	738	55
Swamp Coolers	122	103	Q	65	36	Q	22	16	Q
Other	40	39	Q	Q	Q	Q	9	Q	Q
Main Equipment Replaced Since 1990 (more than one may apply)									
Heating	1,197	1,197	145	602	268	Q	179	288	49
Cooling	1,356	1,315	156	642	288	13	249	299	50
HVAC Conservation Features (more than one may apply)									
Variable Air-Volume System	466	441	51	167	78	25	110	142	20
Economizer Cycle	508	497	68	155	83	21	133	186	25
HVAC Maintenance	2,581	2,491	334	1,167	375	59	468	650	104
Energy Management and Control System (EMCS)	252	245	52	43	39	17	72	85	17
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a									
Heating	2,878	2,878	336	1,385	648	30	396	695	143
Cooling	2,761	2,650	343	1,221	571	28	369	719	111
Lighting	3,685	3,397	402	1,649	685	49	481	800	156
Office Equipment	1,504	1,445	184	707	284	22	211	361	70

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample.

Notes: • HVAC = Heating, Ventilation, and Air Conditioning. • Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 2003 Commercial Buildings Energy Consumption Survey.

Table B39. Heating Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)								
	All Buildings*	Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
All Buildings*	64,783	60,028	8,814	19,615	12,545	5,166	20,423	18,021	3,262
Building Floorspace (Square Feet)									
1,001 to 5,000	6,789	5,668	685	2,902	1,047	Q	461	1,159	330
5,001 to 10,000	6,585	5,786	462	2,891	1,282	Q	773	1,599	Q
10,001 to 25,000	11,535	10,387	1,400	4,653	2,129	289	2,164	2,765	456
25,001 to 50,000	8,668	8,060	1,150	2,761	1,748	325	2,829	2,449	419
50,001 to 100,000	9,057	8,718	1,524	2,086	1,819	549	3,497	3,328	450
100,001 to 200,000	9,064	8,710	1,245	1,974	1,625	1,365	4,283	2,797	Q
200,001 to 500,000	7,176	6,907	1,295	1,456	1,313	1,010	3,844	2,156	514
Over 500,000	5,908	5,792	1,053	891	1,582	1,528	2,573	1,769	Q
Principal Building Activity									
Education	9,874	9,755	1,787	1,855	1,500	1,106	5,171	2,596	Q
Food Sales	1,255	1,131	Q	567	Q	N	Q	422	Q
Food Service	1,654	1,608	168	675	186	Q	328	591	Q
Health Care	3,163	3,100	641	786	600	410	1,857	942	Q
Inpatient	1,905	1,905	424	386	409	353	1,477	672	Q
Outpatient	1,258	1,195	217	400	191	Q	380	270	Q
Lodging	5,096	4,994	1,183	1,065	1,462	Q	2,773	1,356	Q
Retail (Other Than Mall).....	4,317	4,075	444	2,049	667	Q	383	1,397	Q
Office	12,208	11,929	1,795	2,405	2,186	1,526	4,117	3,754	970
Public Assembly	3,939	3,777	409	1,028	677	530	1,421	879	Q
Public Order and Safety	1,090	1,083	Q	260	Q	Q	437	328	Q
Religious Worship	3,754	3,581	577	1,945	875	Q	1,148	733	Q
Service	4,050	3,687	457	1,974	1,010	Q	791	957	393
Warehouse and Storage	10,078	8,126	913	3,757	2,457	Q	1,031	3,118	Q
Other	1,738	1,691	Q	700	311	Q	546	498	Q
Vacant	2,567	1,491	Q	550	Q	Q	Q	Q	Q
Year Constructed									
Before 1920	3,769	3,667	Q	1,350	782	Q	1,926	390	Q
1920 to 1945	6,871	6,236	622	2,085	1,427	1,203	2,744	979	Q
1946 to 1959	7,045	6,534	848	2,475	1,442	661	3,081	1,422	Q
1960 to 1969	8,101	7,510	827	2,346	1,469	786	2,957	1,993	242
1970 to 1979	10,772	10,223	1,378	3,612	2,393	573	3,339	3,443	779
1980 to 1989	10,332	9,808	2,018	2,418	1,799	780	2,803	3,816	641
1990 to 1999	12,360	11,254	1,974	3,971	2,433	691	2,257	4,067	814
2000 to 2003	5,533	4,796	999	1,359	800	Q	1,316	1,911	401
Census Region									
Northeast	12,905	12,596	1,213	3,596	2,786	1,245	6,228	2,912	579
Midwest	17,080	16,331	1,058	7,229	4,169	1,623	6,141	3,666	820
South	23,489	20,998	4,942	5,715	3,608	1,683	4,393	8,130	1,381
West	11,310	10,102	1,600	3,075	1,981	615	3,662	3,312	481
Climate Zone: 30-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	10,622	10,109	727	4,587	3,014	801	4,060	2,126	816
5,500-7,000 HDD	17,335	16,720	1,471	6,411	3,582	1,749	6,835	3,708	674
4,000-5,499 HDD	11,504	11,239	1,971	2,648	2,524	1,266	4,693	3,204	497
Fewer than 4,000 HDD	15,739	13,965	3,283	4,313	2,569	918	3,334	5,619	525
2,000 CDD or More and --									
Fewer than 4,000 HDD	9,584	7,995	1,361	1,658	856	432	1,500	3,365	750

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Table B39. Heating Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)									
	All Buildings*	Heated Buildings	Heating Equipment (more than one may apply)						Packaged Heating Units	Other
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers			
All Buildings*	64,783	60,028	8,814	19,615	12,545	5,166	20,423	18,021	3,262	
Number of Floors										
One	25,981	22,744	3,440	9,476	4,914	Q	3,267	8,267	1,236	
Two	16,270	15,408	2,146	6,368	2,908	501	5,116	4,671	874	
Three	7,501	7,198	1,139	2,231	1,709	385	3,856	1,822	Q	
Four to Nine	10,085	9,744	1,146	1,054	2,087	2,350	5,793	1,987	426	
Ten or More	4,947	4,933	943	Q	927	1,298	2,391	1,273	502	
Number of Workers (main shift)										
Fewer than 5	15,492	12,182	1,196	5,347	2,782	Q	1,986	2,269	544	
5 to 9	6,166	5,822	647	3,043	938	Q	1,140	1,571	Q	
10 to 19	7,803	7,410	932	3,057	1,542	Q	1,884	2,209	394	
20 to 49	10,989	10,822	1,460	3,814	2,364	653	3,588	3,526	799	
50 to 99	7,934	7,650	1,398	1,899	1,628	460	3,556	2,835	372	
100 to 249	6,871	6,766	1,513	1,290	1,300	972	3,401	2,736	Q	
250 or More	9,528	9,376	1,668	1,165	1,991	2,063	4,869	2,874	808	
Weekly Operating Hours										
Fewer than 40	6,863	5,246	550	2,374	1,106	Q	1,023	1,058	239	
40 to 48	11,622	10,928	1,623	3,978	2,013	493	3,381	3,119	479	
49 to 60	15,723	14,763	1,910	4,950	3,172	1,576	4,113	4,185	949	
61 to 84	10,334	10,012	1,545	3,426	1,810	760	3,491	2,806	804	
85 to 167	7,092	6,680	818	1,989	1,476	773	1,974	2,690	Q	
Open Continuously	13,149	12,399	2,367	2,899	2,969	1,384	6,441	4,163	449	
Multibuilding Facility										
Not Part of a Multibuilding										
Facility	40,048	37,438	4,995	14,226	7,979	1,144	11,924	12,056	1,874	
College or University	3,480	3,456	324	Q	279	1,977	1,175	440	Q	
Primary or Secondary School	3,947	3,910	911	818	637	Q	1,691	1,168	Q	
Office Complex	2,712	2,665	455	212	626	Q	1,055	992	Q	
Retail Complex	1,238	941	Q	422	271	N	Q	280	Q	
Religious Campus or Complex	2,347	2,245	320	731	302	Q	988	406	Q	
Health Care Complex	2,303	2,231	543	489	413	409	1,551	655	Q	
Lodging or Resort Complex	912	830	251	Q	380	Q	356	302	Q	
Government Complex	2,014	1,987	Q	319	273	Q	610	463	Q	
Other	5,783	4,325	696	2,019	1,384	Q	1,024	1,259	568	
Renovations in Buildings Constructed Before 1980 (more than one may apply)										
Any Type of Renovation										
Since 1980	17,844	17,204	2,367	5,768	4,345	1,644	8,140	5,138	548	
Addition or Annex	6,551	6,439	1,187	2,481	1,627	435	3,417	1,982	Q	
Reduction In Floorspace	1,012	1,012	Q	Q	Q	Q	698	Q	Q	
Cosmetic Improvements	13,119	12,739	1,687	4,128	3,186	1,169	6,277	3,773	346	
Wall or Roof Replacement	8,070	7,919	1,141	2,258	2,080	833	4,224	2,478	Q	
Interior Wall										
Re-Configuration	8,518	8,385	1,144	2,539	2,330	1,007	4,470	2,668	Q	
HVAC Equipment Upgrade	10,768	10,634	1,765	3,438	2,925	1,262	5,534	3,539	361	
Lighting Upgrade	10,275	10,049	1,441	2,892	2,563	1,283	5,421	3,036	288	
Window Replacement	6,354	6,157	788	1,973	1,680	686	3,361	1,763	Q	
Plumbing System Upgrade	7,144	6,988	1,042	2,063	1,891	924	3,891	2,293	Q	
Insulation Upgrade	4,015	3,974	516	1,664	1,192	351	1,735	1,526	Q	
Other Renovation	523	497	Q	Q	Q	Q	302	Q	N	
No Renovations Since 1980	18,714	16,967	1,456	6,100	3,167	1,862	5,907	3,089	859	
Building Newer than 1980	28,225	25,857	4,991	7,747	5,032	1,660	6,376	9,794	1,856	

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Table B39. Heating Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)								
	All Buildings*	Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
All Buildings*	64,783	60,028	8,814	19,615	12,545	5,166	20,423	18,021	3,262
Energy Sources (more than one may apply)									
Electricity	63,307	59,991	8,814	19,604	12,540	5,166	20,423	18,021	3,242
Natural Gas	43,468	42,974	5,552	15,304	8,969	2,291	18,174	13,618	1,801
Fuel Oil	15,157	14,942	2,417	3,330	3,236	1,592	8,930	3,862	1,095
District Heat	5,443	5,378	413	Q	605	5,166	Q	589	Q
District Chilled Water	2,853	2,734	Q	Q	Q	2,231	391	370	Q
Propane	7,076	6,790	944	2,831	1,968	Q	1,949	1,983	599
Other	1,401	1,399	Q	617	448	Q	613	296	405
Space-Heating Energy Sources (more than one may apply)									
Electricity	28,600	28,600	8,688	8,653	9,838	1,088	7,766	11,947	2,139
Natural Gas	36,959	36,959	4,643	14,562	7,947	486	16,417	12,283	1,524
Fuel Oil	5,988	5,988	295	1,827	1,438	Q	4,355	593	265
District Heat	5,198	5,198	413	Q	560	5,166	Q	528	Q
Propane	3,204	3,204	516	1,946	1,178	Q	761	833	443
Other	842	842	Q	435	317	N	286	Q	384
Primary Space-Heating Energy Source									
Electricity	15,996	15,996	4,812	3,655	3,736	Q	2,115	6,767	1,286
Natural Gas	32,970	32,970	3,430	13,476	6,907	Q	15,138	10,115	1,275
Fuel Oil	3,818	3,818	Q	1,153	739	N	2,714	Q	Q
District Heat	4,907	4,907	388	Q	533	4,875	Q	466	Q
Propane	1,955	1,955	Q	1,140	522	Q	Q	469	Q
Other	382	382	Q	Q	Q	N	Q	Q	Q
Energy End Uses (more than one may apply)									
Buildings with Space Heating	60,028	60,028	8,814	19,615	12,545	5,166	20,423	18,021	3,262
Buildings with Cooling	56,940	55,188	8,780	17,494	11,526	4,376	19,051	17,745	2,961
Buildings with Water Heating	56,478	55,154	8,390	17,920	11,659	4,354	19,904	16,821	3,031
Buildings with Cooking	22,237	21,725	4,202	5,351	4,804	1,747	11,586	7,112	868
Buildings with Manufacturing	3,138	3,072	293	1,486	1,087	Q	1,145	1,087	Q
Buildings with Electricity Generation	12,821	12,635	2,580	2,377	2,750	1,953	6,863	4,166	915
Percent of Floorspace Heated									
Not Heated	4,756	N	N	N	N	N	N	N	N
1 to 50	6,850	6,850	670	2,852	2,055	Q	792	2,390	279
51 to 99	8,107	8,107	1,497	2,597	1,943	631	3,110	2,546	476
100	45,071	45,071	6,647	14,165	8,547	4,509	16,521	13,085	2,507
Heating Equipment (more than one may apply)									
Heat Pumps	8,814	8,814	8,814	2,117	1,861	413	2,787	3,069	358
Packaged Heat Pumps	5,442	5,442	5,442	1,125	1,114	Q	1,699	2,236	Q
Split-System Heat Pumps	2,581	2,581	2,581	774	872	Q	622	717	Q
Individual Room Heat Pumps	2,691	2,691	2,691	592	594	Q	1,227	1,376	Q
Furnaces	19,615	19,615	2,117	19,615	4,858	Q	2,986	3,483	883
Individual Space Heaters	12,545	12,545	1,861	4,858	12,545	543	3,830	3,900	373
District Heat	5,166	5,166	413	Q	543	5,166	Q	512	Q
Boilers	20,423	20,423	2,787	2,986	3,830	Q	20,423	3,910	Q
Packaged Heating Units	18,021	18,021	3,069	3,483	3,900	512	3,910	18,021	482
Other	3,262	3,262	358	883	373	Q	Q	482	3,262

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Table B39. Heating Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)								
	All Buildings*	Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
All Buildings*	64,783	60,028	8,814	19,615	12,545	5,166	20,423	18,021	3,262
Cooling Equipment (more than one may apply)									
Residential-Type Central									
Air Conditioners	11,035	10,617	1,356	6,251	2,933	Q	3,352	2,812	495
Heat Pumps	9,041	8,921	8,366	2,111	1,774	404	2,919	3,065	381
Packaged Heat Pumps	5,426	5,407	5,174	1,128	1,054	Q	1,694	2,147	Q
Split-System Heat Pumps	2,606	2,559	2,452	761	840	Q	650	711	Q
Individual Room Heat Pumps	2,940	2,887	2,610	596	568	Q	1,336	1,453	Q
Individual Air Conditioners	12,558	12,167	2,049	4,077	4,558	758	5,926	3,722	579
District Chilled Water	2,853	2,734	Q	Q	Q	2,231	391	370	Q
Central Chillers	11,636	11,440	1,992	1,352	2,175	1,737	7,857	2,703	979
Packaged Air Conditioning									
Units	29,969	29,007	3,446	9,995	6,288	1,023	9,946	14,747	1,255
Swamp Coolers	1,561	1,451	Q	718	611	Q	620	347	Q
Other	1,232	1,203	Q	Q	Q	Q	596	Q	Q
Main Equipment Replaced Since 1990 (more than one may apply)									
Heating	16,403	16,403	2,455	6,420	4,563	Q	5,746	5,315	730
Cooling	20,995	20,633	3,375	6,935	4,979	917	9,022	6,277	912
HVAC Conservation Features (more than one may apply)									
Variable Air-Volume System	19,597	19,108	2,747	3,619	3,962	2,886	9,385	5,938	1,192
Economizer Cycle	21,108	20,828	3,558	3,846	4,517	2,873	10,246	7,804	1,274
HVAC Maintenance	51,163	49,812	7,769	15,148	9,459	4,956	18,923	15,677	2,579
Energy Management and Control System (EMCS)	15,630	15,457	2,897	2,092	2,973	2,662	7,451	5,128	1,124
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a									
Heating	42,722	42,722	6,388	14,172	9,211	3,047	14,636	12,799	2,411
Cooling	43,205	41,977	6,693	13,252	8,795	3,273	14,480	13,342	2,336
Lighting	46,987	44,799	6,227	15,787	8,942	3,568	13,430	12,979	2,563
Office Equipment	19,397	18,638	2,508	7,119	3,604	1,313	5,788	4,887	990

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample.

Notes: • HVAC = Heating, Ventilation, and Air Conditioning. • Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 2003 Commercial Buildings Energy Consumption Survey.

Table B40. Cooling Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)									
	All Buildings*	Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings*	4,645	3,625	1,006	492	742	33	111	1,613	122	40
Building Floorspace (Square Feet)										
1,001 to 5,000	2,552	1,841	581	260	383	Q	Q	678	58	Q
5,001 to 10,000	889	732	207	78	134	Q	Q	367	26	Q
10,001 to 25,000	738	629	140	87	114	Q	26	332	26	Q
25,001 to 50,000	241	216	47	33	62	6	19	119	Q	Q
50,001 to 100,000	129	118	19	20	27	5	24	67	Q	Q
100,001 to 200,000	65	60	8	8	16	6	17	32	Q	Q
200,001 to 500,000	25	23	4	4	4	2	10	13	Q	Q
Over 500,000	7	6	1	1	1	1	3	3	Q	Q
Principal Building Activity										
Education	386	352	59	63	87	14	36	139	Q	Q
Food Sales	226	210	36	Q	Q	N	N	107	Q	Q
Food Service	297	283	69	30	33	Q	Q	176	Q	Q
Health Care	129	129	47	22	8	1	8	57	Q	Q
Inpatient	8	8	1	Q	3	1	4	5	Q	Q
Outpatient	121	121	46	19	Q	Q	4	52	N	N
Lodging	142	130	23	25	71	Q	11	39	Q	Q
Retail (Other Than Mall).....	443	406	95	50	82	Q	Q	200	Q	Q
Office	824	790	273	107	107	9	29	339	Q	15
Public Assembly	277	213	63	27	40	3	6	96	Q	Q
Public Order and Safety	71	61	Q	Q	20	Q	Q	27	Q	N
Religious Worship	370	308	102	57	74	Q	Q	138	Q	Q
Service	622	370	97	33	116	N	Q	136	Q	N
Warehouse and Storage	597	266	91	28	48	Q	Q	113	Q	Q
Other	79	57	Q	Q	Q	Q	4	27	Q	Q
Vacant	182	52	Q	Q	Q	Q	Q	18	Q	N
Year Constructed										
Before 1920	330	232	83	Q	82	Q	4	81	Q	Q
1920 to 1945	527	382	135	36	109	Q	8	147	Q	Q
1946 to 1959	562	430	115	48	124	4	11	180	Q	Q
1960 to 1969	579	467	112	50	130	4	22	201	Q	Q
1970 to 1979	731	609	157	77	121	5	24	294	35	Q
1980 to 1989	707	577	165	105	90	5	19	251	18	Q
1990 to 1999	876	695	184	122	72	8	16	334	19	Q
2000 to 2003	334	234	55	46	14	Q	8	125	Q	Q
Census Region										
Northeast	726	519	144	59	179	6	10	202	Q	Q
Midwest	1,266	957	363	49	209	4	29	425	Q	10
South	1,775	1,479	360	303	229	14	50	681	Q	12
West	878	671	138	81	125	9	22	304	113	Q
Climate Zone: 30-Year Average										
Under 2,000 CDD and --										
More than 7,000 HDD	855	578	192	30	139	3	16	261	30	Q
5,500-7,000 HDD	1,173	882	241	81	226	4	27	374	Q	13
4,000-5,499 HDD	673	582	191	88	142	7	21	224	Q	Q
Fewer than 4,000 HDD	1,276	1,003	225	205	156	10	22	488	40	Q
2,000 CDD or More and --										
Fewer than 4,000 HDD	669	580	158	89	79	9	25	266	Q	Q

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Table B40. Cooling Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)									
	All Buildings*	Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings*	4,645	3,625	1,006	492	742	33	111	1,613	122	40
Number of Floors										
One	3,136	2,340	623	344	418	10	24	1,061	73	Q
Two	1,031	864	264	103	185	6	30	384	38	16
Three	339	290	96	32	88	4	24	119	Q	Q
Four to Nine	128	120	22	10	48	11	25	44	Q	Q
Ten or More	12	12	1	3	3	1	7	5	Q	Q
Number of Workers (main shift)										
Fewer than 5	2,653	1,746	508	257	428	Q	Q	619	64	Q
5 to 9	778	725	240	89	110	Q	Q	345	Q	Q
10 to 19	563	523	146	57	93	Q	10	274	Q	Q
20 to 49	398	386	81	47	68	6	29	223	21	Q
50 to 99	147	139	19	22	25	7	20	92	Q	Q
100 to 249	77	76	9	15	14	6	22	44	Q	Q
250 or More	30	30	2	5	4	4	14	16	Q	1
Weekly Operating Hours										
Fewer than 40	1,002	595	198	104	125	Q	7	206	Q	Q
40 to 48	1,117	951	283	128	209	Q	21	384	24	Q
49 to 60	1,062	883	262	107	169	6	33	395	29	Q
61 to 84	591	521	136	68	90	6	18	248	Q	Q
85 to 167	400	338	56	28	46	7	9	222	Q	Q
Open Continuously	475	338	70	58	103	4	23	158	15	Q
Multibuilding Facility										
Not Part of a Multibuilding										
Facility	3,169	2,595	773	299	511	Q	50	1,207	85	18
College or University	83	73	Q	11	11	15	20	12	Q	Q
Primary or Secondary School	254	218	22	46	53	Q	18	87	Q	Q
Office Complex	111	104	32	21	Q	Q	3	43	Q	Q
Retail Complex	151	92	Q	Q	Q	N	Q	42	Q	Q
Religious Campus or Complex	195	171	50	35	39	Q	Q	78	Q	Q
Health Care Complex	39	39	12	7	6	1	6	20	Q	Q
Lodging or Resort Complex	61	58	Q	9	26	Q	Q	14	Q	Q
Government Complex	87	62	Q	Q	17	Q	5	27	Q	Q
Other	496	214	58	39	45	Q	2	84	Q	Q

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Table B40. Cooling Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)									
	All Buildings*	Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings*	4,645	3,625	1,006	492	742	33	111	1,613	122	40
Renovations in Buildings Constructed Before 1980 (more than one may apply)										
Any Type of Renovation										
Since 1980	1,018	872	243	107	236	7	40	399	35	8
Addition or Annex	256	242	79	34	75	2	12	117	Q	Q
Reduction In Floorspace	22	22	Q	Q	Q	Q	2	12	Q	Q
Cosmetic Improvements	741	644	172	81	170	5	29	321	22	6
Wall or Roof Replacement	370	309	84	37	84	2	14	145	Q	Q
Interior Wall										
Re-Configuration	411	362	96	36	97	4	20	176	Q	Q
HVAC Equipment Upgrade	442	405	116	56	98	4	28	206	16	Q
Lighting Upgrade	455	396	109	49	103	6	24	196	17	Q
Window Replacement	310	259	78	30	85	Q	11	123	Q	Q
Plumbing System Upgrade	315	271	74	31	81	2	12	124	Q	Q
Insulation Upgrade	227	187	68	19	50	Q	7	67	Q	Q
Other Renovation	19	17	Q	Q	Q	N	Q	Q	Q	N
No Renovations Since 1980	1,710	1,248	359	113	331	11	29	504	46	Q
Building Newer than 1980	1,917	1,506	404	273	175	14	42	710	41	16
Energy Sources (more than one may apply)										
Electricity	4,404	3,623	1,006	492	742	33	111	1,613	122	37
Natural Gas	2,391	2,153	652	176	392	17	78	1,116	78	16
Fuel Oil	451	298	82	21	132	3	27	116	10	6
District Heat	67	55	Q	2	13	25	15	8	Q	Q
District Chilled Water	33	33	Q	1	2	33	Q	4	Q	Q
Propane	502	399	118	39	139	Q	7	149	28	Q
Other	132	78	16	Q	24	Q	Q	32	Q	Q
Cooling Energy Sources (more than one may apply)										
Electricity	3,589	3,589	1,005	492	742	9	106	1,612	122	30
Natural Gas	17	17	Q	8	Q	Q	5	4	Q	Q
District Chilled Water	33	33	Q	1	2	33	Q	4	Q	Q
Energy End Uses (more than one may apply)										
Buildings with Space Heating	3,982	3,469	963	481	718	32	106	1,539	103	39
Buildings with Cooling	3,625	3,625	1,006	492	742	33	111	1,613	122	40
Buildings with Water Heating	3,472	3,112	868	406	631	31	109	1,430	115	33
Buildings with Cooking	801	743	172	103	166	6	41	417	41	8
Buildings with Manufacturing	119	92	26	12	19	Q	Q	45	Q	Q
Buildings with Electricity										
Generation	149	144	41	24	33	5	30	76	5	4
Percent of Floorspace Cooled										
Not Cooled	1,020	N	N	N	N	N	N	N	N	N
1 to 50	985	985	284	76	349	Q	9	348	36	Q
51 to 99	629	629	182	82	119	5	31	313	43	Q
100	2,011	2,011	540	335	274	27	72	952	43	22

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Table B40. Cooling Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)									
	All Buildings*	Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings*	4,645	3,625	1,006	492	742	33	111	1,613	122	40
Heating Equipment (more than one may apply)										
Heat Pumps	476	469	36	448	41	Q	11	68	Q	Q
Packaged Heat Pumps	278	275	15	263	23	Q	6	50	Q	Q
Split-System Heat Pumps	166	163	25	154	18	Q	3	16	Q	Q
Individual Room Heat Pumps	58	58	6	57	10	Q	5	14	Q	Q
Furnaces	1,864	1,581	675	85	302	Q	9	689	65	Q
Individual Space Heaters	819	685	171	57	321	Q	12	255	36	Q
District Heat	65	53	Q	2	12	24	14	7	Q	Q
Boilers	579	485	127	39	169	5	73	207	22	9
Packaged Heating Units	953	932	184	51	102	5	20	738	16	Q
Other	205	154	29	16	47	Q	10	55	Q	Q
Cooling Equipment (more than one may apply)										
Residential-Type Central										
Air Conditioners	1,006	1,006	1,006	31	99	Q	9	64	12	Q
Heat Pumps	492	492	31	492	39	1	13	61	Q	Q
Packaged Heat Pumps	288	288	11	288	21	Q	7	43	Q	Q
Split-System Heat Pumps	174	174	24	174	18	Q	4	15	Q	Q
Individual Room Heat Pumps	58	58	6	58	9	Q	5	14	Q	Q
Individual Air Conditioners	742	742	99	39	742	2	16	153	21	Q
District Chilled Water	33	33	Q	1	2	33	Q	4	Q	Q
Central Chillers	111	111	9	13	16	Q	111	22	Q	Q
Packaged Air Conditioning										
Units	1,613	1,613	64	61	153	4	22	1,613	34	8
Swamp Coolers	122	122	12	Q	21	Q	Q	34	122	Q
Other	40	40	Q	Q	Q	Q	Q	8	Q	40
Main Equipment Replaced Since 1990 (more than one may apply)										
Heating	1,197	1,054	314	145	241	Q	28	475	25	Q
Cooling	1,356	1,356	386	158	373	Q	36	573	54	Q
Lighting Equipment Types (more than one may apply)										
Incandescent	2,184	1,875	580	239	455	17	73	827	61	20
Standard Fluorescent	3,943	3,408	942	460	694	29	107	1,540	120	37
Compact Fluorescent	941	864	227	127	188	17	66	423	29	10
High Intensity Discharge	455	400	105	68	85	10	33	202	17	5
Halogen	565	504	139	85	112	4	34	263	22	10
Other	8	8	Q	Q	Q	Q	Q	Q	N	N
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	466	450	101	56	47	20	56	245	18	10
Economizer Cycle	508	508	82	72	50	18	62	326	33	5
HVAC Maintenance	2,581	2,328	625	338	368	32	104	1,157	91	26
Energy Management and Control System (EMCS)	252	248	31	51	29	17	51	117	Q	5

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Table B40. Cooling Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)									
	All Build-ings*	Cooled Build-ings	Cooling Equipment (more than one may apply)							
			Resid-entia-Type Central Air Condi-tioners	Heat Pumps	Indiv-idual Air Condi-tioners	District Chilled Water	Central Chillers	Pack-aged Air Condi-tioning Units	Swamp Coolers	Other
All Buildings*	4,645	3,625	1,006	492	742	33	111	1,613	122	40
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a										
Heating	2,878	2,512	692	346	515	18	70	1,135	79	22
Cooling	2,761	2,761	760	359	596	20	73	1,241	98	18
Lighting	3,685	3,122	891	412	606	25	81	1,390	103	27
Office Equipment	1,504	1,367	432	181	272	11	35	582	27	Q

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample.

Notes: • HVAC = Heating, Ventilation, and Air Conditioning. • Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 2003 Commercial Buildings Energy Consumption Survey.

Table B41. Cooling Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)									
	All Buildings*	Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings*	64,783	56,940	11,035	9,041	12,558	2,853	11,636	29,969	1,561	1,232
Building Floorspace (Square Feet)										
1,001 to 5,000	6,789	5,007	1,568	675	972	Q	Q	1,957	179	Q
5,001 to 10,000	6,585	5,408	1,523	563	1,012	Q	Q	2,741	207	Q
10,001 to 25,000	11,535	9,922	2,173	1,441	1,740	Q	456	5,260	378	Q
25,001 to 50,000	8,668	7,776	1,683	1,155	2,301	240	729	4,264	Q	Q
50,001 to 100,000	9,057	8,331	1,388	1,440	1,958	332	1,722	4,732	Q	Q
100,001 to 200,000	9,064	8,339	993	1,158	2,259	793	2,366	4,504	Q	Q
200,001 to 500,000	7,176	6,565	1,136	1,273	1,223	495	3,023	3,834	Q	Q
Over 500,000	5,908	5,591	569	1,334	1,095	822	3,278	2,678	Q	Q
Principal Building Activity										
Education	9,874	9,200	1,263	1,674	2,607	768	2,714	4,318	Q	Q
Food Sales	1,255	1,198	173	Q	Q	N	N	784	Q	Q
Food Service	1,654	1,583	468	217	234	Q	Q	988	Q	Q
Health Care	3,163	3,157	704	625	694	297	1,524	1,694	Q	Q
Inpatient	1,905	1,899	321	412	607	279	1,348	1,108	Q	Q
Outpatient	1,258	1,258	384	213	Q	Q	176	585	N	N
Lodging	5,096	4,841	1,102	1,172	2,306	Q	1,401	2,003	Q	Q
Retail (Other Than Mall).....	4,317	4,079	624	471	564	Q	Q	2,723	Q	Q
Office	12,208	12,032	1,669	1,854	1,201	730	3,839	6,171	Q	439
Public Assembly	3,939	3,477	532	473	951	458	423	1,684	Q	Q
Public Order and Safety	1,090	1,043	Q	Q	372	Q	Q	438	Q	N
Religious Worship	3,754	3,301	946	612	847	Q	Q	1,849	Q	Q
Service	4,050	3,261	1,071	496	802	N	Q	1,466	Q	N
Warehouse and Storage	10,078	7,295	1,861	981	1,440	Q	Q	4,453	Q	Q
Other	1,738	1,636	Q	Q	Q	Q	505	881	Q	Q
Vacant	2,567	836	Q	Q	Q	Q	Q	517	Q	N
Year Constructed										
Before 1920	3,769	2,891	722	Q	1,278	Q	392	1,198	Q	Q
1920 to 1945	6,871	4,919	1,573	653	1,534	Q	1,063	2,847	Q	Q
1946 to 1959	7,045	6,045	1,175	888	2,594	359	891	3,023	Q	Q
1960 to 1969	8,101	7,125	1,421	794	1,888	446	1,776	3,596	Q	Q
1970 to 1979	10,772	9,973	1,961	1,392	2,065	456	2,323	5,400	483	Q
1980 to 1989	10,332	9,836	1,397	2,055	1,342	531	2,801	4,855	324	Q
1990 to 1999	12,360	11,304	2,066	2,038	1,366	804	1,426	6,264	252	Q
2000 to 2003	5,533	4,848	720	1,064	492	Q	963	2,787	Q	Q
Census Region										
Northeast	12,905	10,954	2,391	1,270	3,687	620	1,852	6,000	Q	Q
Midwest	17,080	14,484	3,609	1,063	3,488	596	2,842	8,086	Q	330
South	23,489	21,553	3,854	4,923	3,635	1,150	4,854	10,401	Q	430
West	11,310	9,950	1,181	1,785	1,749	487	2,088	5,482	1,342	Q
Climate Zone: 30-Year Average										
Under 2,000 CDD and --										
More than 7,000 HDD	10,622	8,550	1,971	739	2,321	350	1,604	4,565	515	Q
5,500-7,000 HDD	17,335	14,524	3,078	1,542	3,633	698	2,658	7,740	468	336
4,000-5,499 HDD	11,504	10,946	2,207	1,998	2,786	514	2,473	6,076	Q	Q
Fewer than 4,000 HDD	15,739	13,977	2,056	3,398	2,565	659	2,695	7,703	346	Q
2,000 CDD or More and --										
Fewer than 4,000 HDD	9,584	8,943	1,723	1,365	1,253	633	2,205	3,884	Q	Q

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Table B41. Cooling Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)									
	All Buildings*	Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings*	64,783	56,940	11,035	9,041	12,558	2,853	11,636	29,969	1,561	1,232
Number of Floors										
One	25,981	21,419	4,674	3,598	3,899	259	864	12,208	733	Q
Two	16,270	14,544	3,178	2,160	3,035	302	2,017	8,436	474	330
Three	7,501	6,437	1,190	1,118	2,004	262	1,433	3,189	Q	Q
Four to Nine	10,085	9,673	1,656	1,122	2,735	1,458	3,874	4,208	Q	Q
Ten or More	4,947	4,867	338	1,043	885	571	3,447	1,927	Q	Q
Number of Workers (main shift)										
Fewer than 5	15,492	9,591	2,630	1,303	2,342	Q	Q	3,964	349	Q
5 to 9	6,166	5,726	1,461	696	1,144	Q	Q	3,025	Q	Q
10 to 19	7,803	7,304	2,035	862	1,608	Q	294	4,059	Q	Q
20 to 49	10,989	10,566	2,129	1,485	2,680	327	1,243	5,941	410	Q
50 to 99	7,934	7,428	1,097	1,339	1,710	505	1,736	4,517	Q	Q
100 to 249	6,871	6,806	776	1,427	1,328	583	2,436	3,939	Q	Q
250 or More	9,528	9,519	906	1,929	1,746	1,219	5,590	4,524	Q	250
Weekly Operating Hours										
Fewer than 40	6,863	3,998	1,046	639	854	Q	267	1,758	Q	Q
40 to 48	11,622	10,508	2,414	1,542	2,362	Q	1,427	5,342	219	Q
49 to 60	15,723	13,757	2,603	1,971	2,723	658	2,636	7,124	319	Q
61 to 84	10,334	9,691	1,757	1,572	1,649	347	1,800	5,226	Q	Q
85 to 167	7,092	6,708	1,104	797	1,072	604	983	4,101	Q	Q
Open Continuously	13,149	12,277	2,110	2,519	3,897	753	4,523	6,417	418	357
Multibuilding Facility										
Not Part of a Multibuilding										
Facility	40,048	35,976	7,374	5,294	7,718	Q	6,043	20,580	1,009	542
College or University	3,480	3,277	Q	329	492	1,221	1,310	590	Q	Q
Primary or Secondary School	3,947	3,560	402	828	887	Q	1,077	1,687	Q	Q
Office Complex	2,712	2,591	336	451	Q	Q	502	1,473	Q	Q
Retail Complex	1,238	919	Q	Q	Q	N	Q	603	Q	Q
Religious Campus or Complex	2,347	2,089	806	340	487	Q	Q	1,267	Q	Q
Health Care Complex	2,303	2,295	435	537	686	297	1,316	1,129	Q	Q
Lodging or Resort Complex	912	907	Q	251	548	Q	Q	264	Q	Q
Government Complex	2,014	1,509	Q	Q	436	Q	405	682	Q	Q
Other	5,783	3,816	953	689	895	Q	570	1,693	Q	Q

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Table B41. Cooling Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)									
	All Buildings*	Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings*	64,783	56,940	11,035	9,041	12,558	2,853	11,636	29,969	1,561	1,232
Renovations in Buildings Constructed Before 1980 (more than one may apply)										
Any Type of Renovation										
Since 1980	17,844	16,221	3,225	2,431	5,220	705	4,243	9,203	555	441
Addition or Annex	6,551	6,173	1,367	1,257	2,236	339	1,696	3,971	Q	Q
Reduction In Floorspace	1,012	1,012	Q	Q	Q	Q	428	664	Q	Q
Cosmetic Improvements	13,119	12,360	2,479	1,646	4,194	476	3,474	7,255	335	252
Wall or Roof Replacement	8,070	7,607	1,257	1,160	2,540	298	2,385	4,590	Q	Q
Interior Wall										
Re-Configuration	8,518	8,096	1,452	1,147	2,460	445	2,607	5,263	Q	Q
HVAC Equipment Upgrade	10,768	10,341	1,968	1,815	3,196	537	3,417	6,158	393	Q
Lighting Upgrade	10,275	9,718	1,914	1,452	3,133	527	3,052	5,762	353	Q
Window Replacement	6,354	5,875	1,162	782	2,521	Q	1,541	3,678	Q	Q
Plumbing System Upgrade	7,144	6,728	1,164	1,056	2,442	299	2,165	4,170	Q	Q
Insulation Upgrade	4,015	3,801	966	547	995	Q	983	2,326	Q	Q
Other Renovation	523	444	Q	Q	Q	N	Q	Q	Q	N
No Renovations Since 1980	18,714	14,732	3,626	1,452	4,138	707	2,202	6,861	414	Q
Building Newer than 1980	28,225	25,987	4,184	5,157	3,200	1,441	5,191	13,905	592	454
Energy Sources (more than one may apply)										
Electricity	63,307	56,925	11,035	9,041	12,558	2,853	11,636	29,969	1,561	1,217
Natural Gas	43,468	41,023	7,982	5,832	9,114	1,765	9,100	23,806	1,265	808
Fuel Oil	15,157	13,890	2,323	2,520	4,220	986	6,049	6,860	354	505
District Heat	5,443	4,653	Q	404	900	2,311	1,837	1,162	Q	Q
District Chilled Water	2,853	2,853	Q	251	439	2,853	Q	511	Q	Q
Propane	7,076	5,713	1,299	1,072	2,111	Q	754	3,083	299	Q
Other	1,401	1,225	255	Q	370	Q	361	602	Q	Q
Cooling Energy Sources (more than one may apply)										
Electricity	54,321	54,321	10,946	9,030	12,558	924	11,054	29,756	1,561	1,091
Natural Gas	1,018	1,018	Q	325	Q	Q	782	554	Q	Q
District Chilled Water	2,853	2,853	Q	251	439	2,853	Q	511	Q	Q
Energy End Uses (more than one may apply)										
Buildings with Space Heating	60,028	55,188	10,617	8,921	12,167	2,734	11,440	29,007	1,451	1,203
Buildings with Cooling	56,940	56,940	11,035	9,041	12,558	2,853	11,636	29,969	1,561	1,232
Buildings with Water Heating	56,478	53,232	10,156	8,586	11,642	2,655	11,589	28,255	1,526	1,198
Buildings with Cooking	22,237	21,451	4,013	4,239	6,186	1,274	7,320	11,986	678	584
Buildings with Manufacturing	3,138	2,655	690	286	596	Q	Q	1,701	Q	Q
Buildings with Electricity Generation	12,821	12,746	1,704	2,608	2,656	1,272	6,047	6,587	304	529
Percent of Floorspace Cooled										
Not Cooled	7,843	N	N	N	N	N	N	N	N	N
1 to 50	16,598	16,598	4,453	1,573	5,424	Q	462	8,900	489	Q
51 to 99	13,211	13,211	2,332	2,334	3,170	829	4,304	7,331	522	261
100	27,132	27,132	4,250	5,134	3,964	1,985	6,870	13,738	550	766

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Table B41. Cooling Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)									
	All Buildings*	Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings*	64,783	56,940	11,035	9,041	12,558	2,853	11,636	29,969	1,561	1,232
Heating Equipment (more than one may apply)										
Heat Pumps	8,814	8,780	1,356	8,366	2,049	Q	1,992	3,446	Q	Q
Packaged Heat Pumps	5,442	5,430	800	5,174	1,373	Q	1,310	2,526	Q	Q
Split-System Heat Pumps	2,581	2,559	901	2,452	589	Q	592	783	Q	Q
Individual Room Heat Pumps	2,691	2,691	478	2,610	963	Q	917	1,346	Q	Q
Furnaces	19,615	17,494	6,251	2,111	4,077	Q	1,352	9,995	718	Q
Individual Space Heaters	12,545	11,526	2,933	1,774	4,558	Q	2,175	6,288	611	Q
District Heat	5,166	4,376	Q	404	758	2,231	1,737	1,023	Q	Q
Boilers	20,423	19,051	3,352	2,919	5,926	391	7,857	9,946	620	596
Packaged Heating Units	18,021	17,745	2,812	3,065	3,722	370	2,703	14,747	347	Q
Other	3,262	2,961	495	381	579	Q	979	1,255	Q	Q
Cooling Equipment (more than one may apply)										
Residential-Type Central										
Air Conditioners	11,035	11,035	11,035	1,319	2,195	Q	1,342	3,057	211	Q
Heat Pumps	9,041	9,041	1,319	9,041	2,139	251	2,050	3,472	Q	Q
Packaged Heat Pumps	5,426	5,426	772	5,426	1,301	Q	1,258	2,442	Q	Q
Split-System Heat Pumps	2,606	2,606	914	2,606	632	Q	648	799	Q	Q
Individual Room Heat Pumps	2,940	2,940	471	2,940	1,052	Q	1,018	1,456	Q	Q
Individual Air Conditioners	12,558	12,558	2,195	2,139	12,558	439	1,896	5,678	436	Q
District Chilled Water	2,853	2,853	Q	251	439	2,853	Q	511	Q	Q
Central Chillers	11,636	11,636	1,342	2,050	1,896	Q	11,636	3,759	Q	Q
Packaged Air Conditioning										
Units	29,969	29,969	3,057	3,472	5,678	511	3,759	29,969	627	407
Swamp Coolers	1,561	1,561	211	Q	436	Q	Q	627	1,561	Q
Other	1,232	1,232	Q	Q	Q	Q	Q	407	Q	1,232
Main Equipment Replaced Since 1990 (more than one may apply)										
Heating	16,403	15,190	3,284	2,370	4,138	Q	2,388	8,431	488	Q
Cooling	20,995	20,995	4,305	3,352	6,419	Q	4,495	10,995	716	Q
Lighting Equipment Types (more than one may apply)										
Incandescent	38,528	36,075	7,231	6,153	9,229	1,768	9,518	18,592	1,019	798
Standard Fluorescent	59,688	55,117	10,670	8,862	12,036	2,784	11,452	29,192	1,528	1,199
Compact Fluorescent	27,571	26,790	4,684	5,151	6,158	1,909	9,374	13,867	622	781
High Intensity Discharge	20,643	19,054	3,627	4,048	4,427	1,040	6,081	10,844	583	490
Halogen	17,703	17,115	3,026	3,522	4,280	725	5,888	9,955	508	556
Other	269	269	Q	Q	Q	Q	Q	Q	N	N
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System	19,597	19,255	2,264	2,885	3,081	1,923	8,288	9,973	322	569
Economizer Cycle	21,108	21,108	2,559	3,708	3,267	1,930	8,488	12,414	528	438
HVAC Maintenance	51,163	47,935	8,670	7,946	9,884	2,795	11,430	26,294	1,323	1,167
Energy Management and Control System (EMCS)	15,630	15,358	1,632	2,852	2,191	1,771	7,114	7,308	238	418

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Table B41. Cooling Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)									
	All Buildings*	Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings*	64,783	56,940	11,035	9,041	12,558	2,853	11,636	29,969	1,561	1,232
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a										
Heating	42,722	39,864	7,513	6,400	8,005	1,924	8,425	21,316	1,062	739
Cooling	43,205	43,205	8,376	6,789	8,952	2,264	8,619	22,962	1,148	748
Lighting	46,987	42,589	8,500	6,285	8,293	1,976	6,814	22,584	1,111	790
Office Equipment	19,397	17,749	3,912	2,441	4,170	751	2,242	9,069	289	Q

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample.

Notes: ● HVAC = Heating, Ventilation, and Air Conditioning. ● Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 2003 Commercial Buildings Energy Consumption Survey.

Table B42. Water Heating Equipment, Number of Buildings and Floorspace for Non-Mall Buildings, 2003

	Number of Buildings (thousand)					Total Floorspace (million square feet)				
	All Buildings*	Buildings with Water Heating	Type of Water Heating Equipment			All Buildings*	Buildings with Water Heating	Type of Water Heating Equipment		
			Centralized System	Distributed System	Combination Centralized and Distributed Systems			Centralized System	Distributed System	Combination Centralized and Distributed Systems
All Buildings*	4,645	3,472	2,513	785	175	64,783	56,478	34,671	11,540	10,267
Building Floorspace (Square Feet)										
1,001 to 5,000	2,552	1,715	1,267	418	Q	6,789	4,759	3,452	1,206	Q
5,001 to 10,000	889	725	557	150	Q	6,585	5,348	4,154	1,057	Q
10,001 to 25,000	738	607	429	133	44	11,535	9,562	6,649	2,205	708
25,001 to 50,000	241	217	144	43	31	8,668	7,734	5,130	1,524	1,081
50,001 to 100,000	129	119	70	27	22	9,057	8,412	5,020	1,853	1,538
100,001 to 200,000	65	60	31	11	18	9,064	8,300	4,214	1,702	2,384
200,001 to 500,000	25	23	13	3	7	7,176	6,680	3,584	900	2,196
Over 500,000	7	6	3	1	2	5,908	5,683	2,469	1,093	2,121
Principal Building Activity										
Education	386	298	184	81	34	9,874	9,481	5,343	1,766	2,372
Food Sales	226	186	148	Q	Q	1,255	1,130	844	Q	Q
Food Service	297	297	237	46	Q	1,654	1,654	1,291	226	Q
Health Care	129	127	103	14	9	3,163	3,160	2,001	247	912
Inpatient	8	8	4	Q	3	1,905	1,905	1,041	Q	755
Outpatient	121	119	100	Q	Q	1,258	1,255	960	Q	Q
Lodging	142	142	110	16	16	5,096	5,096	3,660	302	1,135
Retail (Other Than Mall).....	443	314	227	77	Q	4,317	3,459	2,240	902	Q
Office	824	733	533	166	34	12,208	11,804	6,899	2,237	2,667
Public Assembly	277	227	165	54	7	3,939	3,632	2,380	932	320
Public Order and Safety	71	70	59	Q	Q	1,090	957	663	Q	Q
Religious Worship	370	315	221	78	16	3,754	3,512	2,352	835	325
Service	622	418	281	126	Q	4,050	3,320	1,989	1,025	Q
Warehouse and Storage	597	243	167	68	7	10,078	6,624	3,366	2,359	900
Other	79	55	36	Q	6	1,738	1,630	908	Q	494
Vacant	182	47	39	Q	Q	2,567	1,020	734	Q	Q
Year Constructed										
Before 1920	330	266	193	65	8	3,769	3,353	2,102	810	442
1920 to 1945	527	367	255	89	23	6,871	5,292	3,251	1,130	912
1946 to 1959	562	416	302	93	20	7,045	5,924	3,536	1,282	1,106
1960 to 1969	579	444	317	106	21	8,101	7,202	4,446	1,604	1,152
1970 to 1979	731	582	446	109	27	10,772	9,787	6,608	1,383	1,796
1980 to 1989	707	531	389	120	22	10,332	9,420	5,489	1,883	2,048
1990 to 1999	876	642	446	155	41	12,360	10,816	6,203	2,677	1,937
2000 to 2003	334	224	165	48	12	5,533	4,683	3,037	771	875

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Table B42. Water Heating Equipment, Number of Buildings and Floorspace for Non-Mall Buildings, 2003

	Number of Buildings (thousand)					Total Floorspace (million square feet)				
	All Buildings*	Buildings with Water Heating	Type of Water Heating Equipment			All Buildings*	Buildings with Water Heating	Type of Water Heating Equipment		
			Centralized System	Distributed System	Combination Centralized and Distributed Systems			Centralized System	Distributed System	Combination Centralized and Distributed Systems
All Buildings*	4,645	3,472	2,513	785	175	64,783	56,478	34,671	11,540	10,267
Census Region and Division										
Northeast	726	600	480	97	22	12,905	11,789	7,770	2,325	1,695
New England	233	188	154	29	5	2,964	2,724	1,839	Q	375
Middle Atlantic	493	411	326	68	18	9,941	9,065	5,930	1,815	1,319
Midwest	1,266	987	698	241	48	17,080	14,928	9,724	2,670	2,534
East North Central	696	572	389	159	25	11,595	10,208	6,695	1,750	1,763
West North Central	571	415	310	82	23	5,485	4,720	3,029	920	771
South	1,775	1,217	854	304	60	23,489	19,913	11,537	4,564	3,812
South Atlantic	874	643	455	153	35	12,258	10,714	5,649	2,432	2,633
East South Central	348	227	174	38	14	3,393	2,858	1,890	469	499
West South Central	553	347	224	113	10	7,837	6,341	3,998	1,664	679
West	878	668	480	143	45	11,310	9,848	5,640	1,981	2,227
Mountain	299	256	189	46	21	3,675	3,422	1,928	566	928
Pacific	580	413	291	97	24	7,635	6,426	3,712	1,415	1,299
Climate Zone: 30-Year Average										
Under 2,000 CDD and --										
More than 7,000 HDD	855	683	543	107	34	10,622	9,474	6,315	1,468	1,691
5,500-7,000 HDD	1,173	926	647	225	54	17,335	15,160	9,553	2,954	2,654
4,000-5,499 HDD	673	554	405	121	28	11,504	10,785	6,774	2,015	1,996
Fewer than 4,000 HDD	1,276	883	635	208	40	15,739	13,192	7,444	3,009	2,739
2,000 CDD or More and --										
Fewer than 4,000 HDD	669	426	284	125	18	9,584	7,867	4,585	2,094	1,187
Number of Floors										
One	3,136	2,134	1,542	511	81	25,981	20,164	13,206	4,825	2,134
Two	1,031	899	645	210	44	16,270	14,914	8,809	3,882	2,224
Three	339	304	228	52	24	7,501	6,915	4,353	1,268	1,294
Four to Nine	128	124	92	11	21	10,085	9,688	5,826	1,111	2,751
Ten or More	12	11	6	1	4	4,947	4,796	2,477	454	1,865
Number of Workers (main shift)										
Fewer than 5	2,653	1,653	1,204	420	29	15,492	9,525	6,885	2,417	224
5 to 9	778	675	509	137	29	6,166	5,393	4,019	1,095	279
10 to 19	563	514	390	103	21	7,803	7,182	5,224	1,391	567
20 to 49	398	384	265	78	41	10,989	10,480	6,210	2,827	1,442
50 to 99	147	142	89	29	24	7,934	7,688	4,468	1,408	1,812
100 to 249	77	75	43	14	18	6,871	6,815	3,679	1,090	2,046
250 or More	30	30	13	3	13	9,528	9,395	4,186	1,312	3,897
Weekly Operating Hours										
Fewer than 40	1,002	580	421	148	11	6,863	4,305	2,952	1,144	209
40 to 48	1,117	856	583	247	26	11,622	9,989	5,995	2,945	1,050
49 to 60	1,062	845	585	200	60	15,723	13,564	7,404	3,538	2,622
61 to 84	591	506	397	80	29	10,334	9,477	6,321	1,416	1,740
85 to 167	400	330	259	52	19	7,092	6,635	4,288	1,173	1,174
Open Continuously	475	356	268	58	30	13,149	12,508	7,712	1,324	3,473

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Table B42. Water Heating Equipment, Number of Buildings and Floorspace for Non-Mall Buildings, 2003

	Number of Buildings (thousand)					Total Floorspace (million square feet)				
	All Buildings*	Buildings with Water Heating	Type of Water Heating Equipment			All Buildings*	Buildings with Water Heating	Type of Water Heating Equipment		
			Centralized System	Distributed System	Combination Centralized and Distributed Systems			Centralized System	Distributed System	Combination Centralized and Distributed Systems
All Buildings*	4,645	3,472	2,513	785	175	64,783	56,478	34,671	11,540	10,267
Multibuilding Facility										
Not Part of a Multibuilding Facility										
Facility	3,169	2,505	1,882	517	107	40,048	35,302	22,726	6,725	5,851
College or University	83	64	45	10	9	3,480	3,372	2,303	410	659
Primary or Secondary School	254	169	92	58	18	3,947	3,607	1,898	1,001	707
Office Complex	111	101	67	23	11	2,712	2,541	1,177	554	809
Retail Complex	151	87	64	Q	Q	1,238	855	483	Q	Q
Religious Campus or Complex	195	169	126	33	Q	2,347	2,206	1,562	406	Q
Health Care Complex	39	37	27	Q	6	2,303	2,294	1,252	Q	843
Lodging or Resort Complex	61	60	50	Q	Q	912	909	652	Q	Q
Government Complex	87	60	40	17	Q	2,014	1,348	807	408	Q
Other	496	222	119	96	6	5,783	4,044	1,810	1,526	708
Energy Sources (more than one may apply)										
Electricity	4,404	3,470	2,511	785	175	63,307	56,463	34,656	11,540	10,267
Natural Gas	2,391	2,126	1,560	438	128	43,468	41,134	25,353	7,559	8,222
Fuel Oil	451	376	290	61	26	15,157	14,560	8,411	2,183	3,965
District Heat	67	61	43	5	12	5,443	4,631	2,671	483	1,477
District Chilled Water	33	31	19	4	8	2,853	2,655	1,518	429	709
Propane	502	428	321	86	20	7,076	6,292	3,626	1,413	1,253
Other	132	95	67	25	Q	1,401	1,306	849	242	Q
Water-Heating Energy Sources (more than one may apply)										
Electricity	1,910	1,910	1,265	550	94	27,490	27,490	14,245	7,842	5,404
Natural Gas	1,445	1,445	1,103	240	102	28,820	28,820	17,917	4,435	6,468
Fuel Oil	94	94	91	Q	2	1,880	1,880	1,591	Q	248
District Heat	27	27	22	Q	3	3,088	3,088	2,073	Q	859
Propane	128	128	98	Q	Q	1,422	1,422	973	Q	Q
Energy End Uses (more than one may apply)										
Buildings with Space Heating	3,982	3,337	2,423	743	171	60,028	55,154	33,965	11,021	10,167
Buildings with Cooling	3,625	3,112	2,266	675	171	56,940	53,232	32,513	10,654	10,065
Buildings with Water Heating	3,472	3,472	2,513	785	175	56,478	56,478	34,671	11,540	10,267
Buildings with Cooking	801	787	595	122	69	22,237	21,914	12,932	3,163	5,819
Buildings with Manufacturing	119	102	63	27	12	3,138	2,987	1,053	1,065	869
Buildings with Electricity Generation	149	143	105	15	23	12,821	12,612	7,062	1,566	3,984

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Table B42. Water Heating Equipment, Number of Buildings and Floorspace for Non-Mall Buildings, 2003

	Number of Buildings (thousand)					Total Floorspace (million square feet)				
	All Buildings*	Buildings with Water Heating	Type of Water Heating Equipment			All Buildings*	Buildings with Water Heating	Type of Water Heating Equipment		
			Centralized System	Distributed System	Combination Centralized and Distributed Systems			Centralized System	Distributed System	Combination Centralized and Distributed Systems
All Buildings*	4,645	3,472	2,513	785	175	64,783	56,478	34,671	11,540	10,267
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	799	785	593	122	69	22,223	21,901	12,919	3,163	5,819
Activities with Large Amounts of Hot Water	567	567	415	80	72	19,482	19,482	11,127	2,679	5,676
Separate Computer Area	553	516	348	105	63	26,873	26,129	14,844	4,200	7,085

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample.

Notes: ● HVAC = Heating, Ventilation, and Air Conditioning. ● Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 2003 Commercial Buildings Energy Consumption Survey.

Table B43. Lighting Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)						
	All Buildings*	Lit Buildings	Lighting Equipment Types (more than one may apply)				
			Incand- escent	Standard Fluor- escent	Compact Fluor- escent	High- Intensity Discharge	Halogen
All Buildings*	4,645	4,248	2,184	3,943	941	455	565
Building Floorspace (Square Feet)							
1,001 to 5,000	2,552	2,261	1,070	2,068	382	101	205
5,001 to 10,000	889	821	416	772	148	88	107
10,001 to 25,000	738	716	412	665	189	105	123
25,001 to 50,000	241	231	145	223	102	60	55
50,001 to 100,000	129	126	75	123	60	51	37
100,001 to 200,000	65	63	43	62	38	32	25
200,001 to 500,000	25	24	17	24	16	13	10
Over 500,000	7	6	5	6	5	4	4
Principal Building Activity							
Education	386	384	132	368	97	59	39
Food Sales	226	221	78	217	35	Q	Q
Food Service	297	296	203	282	105	20	65
Health Care	129	129	82	129	43	10	19
Inpatient	8	8	7	8	7	4	4
Outpatient	121	121	75	121	37	6	15
Lodging	142	142	117	121	68	17	33
Retail (Other Than Mall).....	443	442	191	427	67	35	60
Office	824	824	426	791	212	63	96
Public Assembly	277	264	170	243	59	39	37
Public Order and Safety	71	68	47	66	22	Q	Q
Religious Worship	370	370	289	327	87	17	58
Service	622	582	231	536	69	86	51
Warehouse and Storage	597	414	156	342	55	74	59
Other	79	73	38	65	17	10	11
Vacant	182	38	23	28	Q	Q	Q
Year Constructed							
Before 1920	330	303	229	272	75	17	55
1920 to 1945	527	476	276	447	113	34	48
1946 to 1959	562	517	294	491	110	55	62
1960 to 1969	579	553	295	517	111	45	51
1970 to 1979	731	688	362	651	151	81	83
1980 to 1989	707	652	294	598	136	65	76
1990 to 1999	876	781	327	726	177	116	128
2000 to 2003	334	278	109	242	69	42	63
Census Region and Division							
Northeast	726	690	375	646	172	70	90
New England	233	223	135	200	71	18	32
Middle Atlantic	493	467	240	446	101	52	58
Midwest	1,266	1,137	722	1,054	257	161	154
East North Central	696	641	380	603	150	103	98
West North Central	571	495	342	451	106	58	56
South	1,775	1,584	707	1,447	275	147	209
South Atlantic	874	811	330	740	136	82	119
East South Central	348	287	144	273	53	20	22
West South Central	553	485	232	435	86	44	69
West	878	838	381	796	238	77	113
Mountain	299	280	165	275	68	23	29
Pacific	580	558	216	522	170	54	83

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Table B43. Lighting Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)						
	All Buildings*	Lit Buildings	Lighting Equipment Types (more than one may apply)				
			Incand- escent	Standard Fluor- escent	Compact Fluor- escent	High- Intensity Discharge	Halogen
All Buildings*	4,645	4,248	2,184	3,943	941	455	565
Climate Zone: 30-Year Average							
Under 2,000 CDD and --							
More than 7,000 HDD	855	765	491	710	215	115	118
5,500-7,000 HDD	1,173	1,096	621	1,023	232	124	133
4,000-5,499 HDD	673	630	381	591	152	75	88
Fewer than 4,000 HDD	1,276	1,155	431	1,074	239	88	141
2,000 CDD or More and --							
Fewer than 4,000 HDD	669	601	259	546	103	53	85
Number of Floors							
One	3,136	2,793	1,191	2,583	456	260	278
Two	1,031	991	628	916	295	116	186
Three	339	326	254	310	108	41	53
Four to Nine	128	127	102	122	71	32	42
Ten or More	12	12	10	11	10	6	7
Number of Workers (main shift)							
Fewer than 5	2,653	2,261	1,114	2,028	322	140	196
5 to 9	778	774	395	734	182	77	104
10 to 19	563	562	266	546	149	63	90
20 to 49	398	397	245	387	156	90	100
50 to 99	147	147	87	144	65	41	36
100 to 249	77	77	55	75	44	28	25
250 or More	30	30	22	29	22	15	15
Weekly Operating Hours							
Fewer than 40	1,002	756	409	673	103	48	66
40 to 48	1,117	1,095	509	1,032	217	91	106
49 to 60	1,062	1,047	500	990	236	116	155
61 to 84	591	580	314	557	141	92	103
85 to 167	400	370	192	353	106	58	63
Open Continuously	475	399	261	338	137	50	73
Vacancy Status							
Completely Vacant	157	24	Q	18	Q	Q	Q
Mostly Vacant	25	Q	Q	Q	Q	Q	Q
Partially Vacant	548	479	259	431	124	54	67
Not At All Vacant	3,915	3,731	1,903	3,484	813	394	492
Multibuilding Facility							
Not Part of a Multibuilding							
Facility	3,169	2,963	1,566	2,805	648	297	405
College or University	83	83	40	78	45	12	10
Primary or Secondary School	254	251	64	234	47	33	14
Office Complex	111	109	66	103	27	13	14
Retail Complex	151	131	52	116	Q	16	28
Religious Campus or Complex	195	192	126	167	51	11	33
Health Care Complex	39	39	28	39	15	6	7
Lodging or Resort Complex	61	58	45	48	21	Q	7
Government Complex	87	78	42	72	24	8	Q
Other	496	346	155	282	53	57	43

Table B43. Lighting Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)						
	All Buildings*	Lit Buildings	Lighting Equipment Types (more than one may apply)				
			Incand- escent	Standard Fluor- escent	Compact Fluor- escent	High- Intensity Discharge	Halogen
All Buildings*	4,645	4,248	2,184	3,943	941	455	565
Renovations in Buildings Constructed Before 1980 (more than one may apply)							
Any Type of Renovation							
Since 1980	1,018	988	616	928	260	116	163
Addition or Annex	256	255	170	245	67	45	65
Reduction In Floorspace	22	22	16	22	9	9	8
Cosmetic Improvements	741	723	476	675	206	80	125
Wall or Roof Replacement	370	357	239	327	121	56	62
Interior Wall							
Re-Configuration	411	400	273	375	135	57	89
HVAC Equipment Upgrade	442	432	299	414	156	85	101
Lighting Upgrade	455	444	303	414	157	73	89
Window Replacement	310	297	196	282	113	55	57
Plumbing System Upgrade	315	309	200	291	113	54	62
Insulation Upgrade	227	218	143	201	74	33	33
Other Renovation	19	19	13	18	10	Q	Q
No Renovations Since 1980	1,710	1,549	839	1,449	300	117	136
Building Newer than 1980	1,917	1,711	729	1,566	381	222	267
Energy Sources (more than one may apply)							
Electricity	4,404	4,248	2,184	3,943	941	455	565
Natural Gas	2,391	2,353	1,332	2,244	640	334	369
Fuel Oil	451	442	272	422	113	66	80
District Heat	67	66	41	61	37	18	12
District Chilled Water	33	33	17	29	17	10	4
Propane	502	492	291	460	107	57	67
Other	132	120	52	118	36	19	14
Energy End Uses (more than one may apply)							
Buildings with Space Heating	3,982	3,896	2,055	3,671	900	431	525
Buildings with Cooling	3,625	3,584	1,875	3,408	864	400	504
Buildings with Water Heating	3,472	3,423	1,886	3,242	864	415	505
Buildings with Cooking	801	799	534	769	294	116	166
Buildings with Manufacturing	119	118	58	112	32	32	21
Buildings with Electricity Generation	149	149	103	147	81	46	51
Percent Lit When Open							
Zero	47	Q	Q	Q	Q	Q	Q
1 to 50	929	929	506	814	202	61	99
51 to 99	1,108	1,108	673	1,053	290	147	174
100	2,176	2,176	990	2,048	445	238	286
Building Never Open/ Electricity Not Used	386	34	Q	28	Q	Q	Q
Percent Lit When Closed							
Zero	1,964	1,831	871	1,677	294	137	209
1 to 50	1,882	1,882	1,000	1,800	474	246	259
51 to 100	136	136	53	129	36	22	25
Building Never Closed/ Electricity Not Used	664	399	261	338	137	50	73

Table B43. Lighting Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)						
	All Buildings*	Lit Buildings	Lighting Equipment Types (more than one may apply)				
			Incand- escent	Standard Fluor- escent	Compact Fluor- escent	High- Intensity Discharge	Halogen
All Buildings*	4,645	4,248	2,184	3,943	941	455	565
Lighting Equipment Types (more than one may apply)							
Incandescent	2,184	2,184	2,184	1,984	592	258	373
Standard Fluorescent	3,943	3,943	1,984	3,943	882	416	493
Compact Fluorescent	941	941	592	882	941	185	248
High Intensity Discharge	455	455	258	416	185	455	147
Halogen	565	565	373	493	248	147	565
Other	8	8	Q	Q	Q	Q	Q
Window and Interior Lighting Features (more than one may apply)							
Multipaned Windows	2,201	2,138	1,179	2,049	588	291	365
Tinted Window Glass	1,323	1,301	663	1,246	353	182	212
Reflective Window Glass	308	300	164	288	105	55	52
External Overhangs or Awnings	1,233	1,198	640	1,167	319	156	188
Skylights or Atriums	331	323	199	305	122	81	95
Daylighting Sensors	74	74	43	74	30	16	19
Specular Reflectors	928	928	526	928	306	181	173
Electronic Ballasts	2,577	2,577	1,318	2,555	685	344	376
Energy Management and Control System (EMCS) For Lighting	60	60	24	57	27	14	12
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a							
Heating	2,878	2,825	1,515	2,661	686	310	384
Cooling	2,761	2,731	1,432	2,591	668	311	393
Lighting	3,685	3,685	1,858	3,459	769	380	470
Office Equipment	1,504	1,500	709	1,443	346	154	194

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbeecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample.

Notes: • HVAC = Heating, Ventilation, and Air Conditioning. • Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 2003 Commercial Buildings Energy Consumption Survey.

Table B44. Lighting Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)						
	All Buildings*	Lit Buildings	Lighting Equipment Types (more than one may apply)				
			Incand- escent	Standard Fluor- escent	Compact Fluor- escent	High- Intensity Discharge	Halogen
All Buildings*	64,783	62,060	38,528	59,688	27,571	20,643	17,703
Building Floorspace (Square Feet)							
1,001 to 5,000	6,789	6,038	2,918	5,579	1,123	312	604
5,001 to 10,000	6,585	6,090	3,061	5,726	1,109	686	781
10,001 to 25,000	11,535	11,229	6,424	10,458	2,944	1,721	1,973
25,001 to 50,000	8,668	8,297	5,176	8,001	3,662	2,191	2,013
50,001 to 100,000	9,057	8,912	5,296	8,667	4,330	3,646	2,599
100,001 to 200,000	9,064	8,732	6,042	8,612	5,268	4,349	3,473
200,001 to 500,000	7,176	6,946	4,913	6,839	4,610	3,918	2,775
Over 500,000	5,908	5,816	4,698	5,806	4,526	3,819	3,485
Principal Building Activity							
Education	9,874	9,870	6,095	9,633	4,727	4,178	2,231
Food Sales	1,255	1,237	550	1,192	304	Q	Q
Food Service	1,654	1,650	1,296	1,602	717	246	510
Health Care	3,163	3,163	2,555	3,142	2,305	1,324	1,433
Inpatient	1,905	1,905	1,715	1,886	1,689	1,115	1,166
Outpatient	1,258	1,258	840	1,255	616	209	267
Lodging	5,096	5,096	4,581	4,842	3,674	1,498	2,266
Retail (Other Than Mall).....	4,317	4,315	1,991	4,041	1,173	943	828
Office	12,208	12,208	8,480	12,004	7,357	4,054	4,201
Public Assembly	3,939	3,917	2,621	3,748	1,726	1,293	1,393
Public Order and Safety	1,090	1,074	684	1,048	495	Q	Q
Religious Worship	3,754	3,754	3,060	3,567	1,284	421	959
Service	4,050	3,911	1,654	3,793	720	1,312	758
Warehouse and Storage	10,078	9,125	3,362	8,489	1,853	3,939	2,186
Other	1,738	1,721	1,066	1,677	972	713	425
Vacant	2,567	1,020	533	909	Q	Q	Q
Year Constructed							
Before 1920	3,769	3,554	2,663	3,430	1,300	536	881
1920 to 1945	6,871	6,367	4,107	6,078	2,827	2,351	1,225
1946 to 1959	7,045	6,727	4,324	6,488	2,461	2,105	1,973
1960 to 1969	8,101	7,972	4,866	7,739	3,605	2,284	1,798
1970 to 1979	10,772	10,381	7,003	10,048	4,613	3,530	2,921
1980 to 1989	10,332	10,087	6,213	9,743	5,286	3,417	3,384
1990 to 1999	12,360	11,828	6,466	11,358	4,899	4,419	3,352
2000 to 2003	5,533	5,144	2,885	4,803	2,581	2,002	2,169
Census Region and Division							
Northeast	12,905	12,559	8,102	12,159	6,091	4,379	3,581
New England	2,964	2,873	1,996	2,724	1,474	1,021	769
Middle Atlantic	9,941	9,687	6,105	9,435	4,616	3,358	2,812
Midwest	17,080	16,246	10,973	15,708	6,828	6,620	4,661
East North Central	11,595	11,046	7,211	10,701	4,845	5,104	3,259
West North Central	5,485	5,200	3,762	5,006	1,983	1,515	1,402
South	23,489	22,325	13,045	21,222	8,881	6,229	6,193
South Atlantic	12,258	11,856	7,028	11,245	4,856	4,053	3,474
East South Central	3,393	3,148	1,984	3,022	1,262	706	620
West South Central	7,837	7,322	4,033	6,955	2,764	1,470	2,099
West	11,310	10,930	6,408	10,599	5,772	3,416	3,268
Mountain	3,675	3,618	2,443	3,534	1,748	977	993
Pacific	7,635	7,312	3,965	7,066	4,024	2,438	2,275

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Table B44. Lighting Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)						
	All Buildings*	Lit Buildings	Lighting Equipment Types (more than one may apply)				
			Incand- escent	Standard Fluor- escent	Compact Fluor- escent	High- Intensity Discharge	Halogen
All Buildings*	64,783	62,060	38,528	59,688	27,571	20,643	17,703
Climate Zone: 30-Year Average							
Under 2,000 CDD and --							
More than 7,000 HDD	10,622	10,108	7,016	9,783	4,667	3,955	2,762
5,500-7,000 HDD	17,335	16,676	10,308	16,090	6,835	6,149	4,485
4,000-5,499 HDD	11,504	11,228	8,192	10,871	6,292	4,385	3,903
Fewer than 4,000 HDD	15,739	14,947	7,939	14,316	6,439	3,863	4,117
2,000 CDD or More and --							
Fewer than 4,000 HDD	9,584	9,102	5,073	8,627	3,339	2,292	2,435
Number of Floors							
One	25,981	24,288	10,640	22,875	5,431	6,176	3,811
Two	16,270	15,752	9,812	15,172	6,571	4,893	4,590
Three	7,501	7,242	5,620	7,057	3,914	2,582	2,026
Four to Nine	10,085	9,831	8,192	9,691	7,324	4,088	4,145
Ten or More	4,947	4,947	4,264	4,893	4,332	2,904	3,131
Number of Workers (main shift)							
Fewer than 5	15,492	12,835	6,370	11,501	2,142	1,930	1,270
5 to 9	6,166	6,143	3,436	5,943	1,516	977	1,141
10 to 19	7,803	7,791	4,363	7,615	2,744	1,651	1,473
20 to 49	10,989	10,959	6,456	10,688	4,604	3,505	3,303
50 to 99	7,934	7,934	5,336	7,790	4,337	3,364	2,439
100 to 249	6,871	6,871	4,776	6,693	4,304	3,508	2,720
250 or More	9,528	9,528	7,791	9,457	7,923	5,708	5,358
Weekly Operating Hours							
Fewer than 40	6,863	4,922	2,708	4,588	857	852	581
40 to 48	11,622	11,515	6,162	11,067	3,496	2,644	2,181
49 to 60	15,723	15,625	9,130	15,123	6,391	4,770	3,930
61 to 84	10,334	10,312	6,234	10,063	4,567	4,015	3,155
85 to 167	7,092	6,906	4,153	6,654	3,304	3,256	2,122
Open Continuously	13,149	12,781	10,142	12,192	8,957	5,105	5,733
Vacancy Status							
Completely Vacant	2,161	676	Q	610	Q	Q	Q
Mostly Vacant	406	Q	Q	Q	Q	Q	Q
Partially Vacant	12,382	12,062	8,638	11,663	7,412	4,627	4,621
Not At All Vacant	49,834	48,978	29,357	47,116	19,896	15,695	13,028
Multibuilding Facility							
Not Part of a Multibuilding							
Facility	40,048	38,514	23,775	37,281	15,624	12,243	11,311
College or University	3,480	3,478	2,354	3,437	2,494	1,100	804
Primary or Secondary School	3,947	3,938	1,938	3,714	1,516	1,380	708
Office Complex	2,712	2,548	1,749	2,540	1,638	1,019	1,073
Retail Complex	1,238	1,166	491	1,043	Q	249	259
Religious Campus or Complex	2,347	2,314	1,769	2,150	1,132	247	506
Health Care Complex	2,303	2,301	2,047	2,283	1,777	1,073	1,195
Lodging or Resort Complex	912	904	838	809	620	Q	463
Government Complex	2,014	1,995	882	1,976	921	949	Q
Other	5,783	4,903	2,685	4,456	1,588	2,099	1,129

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Table B44. Lighting Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)							
	All Buildings*	Lit Buildings	Lighting Equipment Types (more than one may apply)					Halogen
			Incand- escent	Standard Fluor- escent	Compact Fluor- escent	High- Intensity Discharge		
All Buildings*	64,783	62,060	38,528	59,688	27,571	20,643	17,703	
Renovations in Buildings Constructed Before 1980 (more than one may apply)								
Any Type of Renovation								
Since 1980	17,844	17,473	12,502	17,033	8,464	6,882	6,132	
Addition or Annex	6,551	6,543	5,029	6,412	3,236	2,993	3,019	
Reduction In Floorspace	1,012	1,012	769	1,012	683	509	513	
Cosmetic Improvements	13,119	12,905	9,432	12,555	6,652	4,770	4,869	
Wall or Roof Replacement	8,070	7,978	5,927	7,799	4,505	3,522	3,286	
Interior Wall								
Re-Configuration	8,518	8,434	6,452	8,246	4,937	3,776	3,891	
HVAC Equipment Upgrade	10,768	10,742	7,951	10,606	6,330	4,967	4,357	
Lighting Upgrade	10,275	10,232	7,312	9,999	5,858	4,481	4,096	
Window Replacement	6,354	6,207	4,575	6,124	3,462	2,758	2,719	
Plumbing System Upgrade	7,144	7,118	5,225	6,996	4,311	3,149	3,097	
Insulation Upgrade	4,015	3,988	2,626	3,916	2,229	1,799	1,240	
Other Renovation	523	523	427	500	321	Q	Q	
No Renovations Since 1980	18,714	17,529	10,462	16,750	6,341	3,923	2,665	
Building Newer than 1980	28,225	27,058	15,564	25,904	12,766	9,837	8,906	
Energy Sources (more than one may apply)								
Electricity	63,307	62,060	38,528	59,688	27,571	20,643	17,703	
Natural Gas	43,468	42,950	28,624	41,843	21,209	15,922	13,645	
Fuel Oil	15,157	15,037	11,635	14,904	10,201	7,314	6,893	
District Heat	5,443	5,319	3,617	5,239	3,663	2,665	1,857	
District Chilled Water	2,853	2,819	1,768	2,784	1,909	1,040	725	
Propane	7,076	6,990	4,170	6,821	2,999	3,170	2,015	
Other	1,401	1,370	902	1,365	672	525	480	
Energy End Uses (more than one may apply)								
Buildings with Space Heating	60,028	59,215	37,220	57,351	26,835	20,093	17,042	
Buildings with Cooling	56,940	56,661	36,075	55,117	26,790	19,054	17,115	
Buildings with Water Heating	56,478	56,011	36,622	54,438	26,878	19,191	16,887	
Buildings with Cooking	22,237	22,166	17,258	21,686	14,174	9,621	9,083	
Buildings with Manufacturing	3,138	3,097	1,877	3,028	1,297	1,682	925	
Buildings with Electricity Generation	12,821	12,745	9,976	12,665	10,041	6,861	6,448	
Percent Lit When Open								
Zero	293	Q	Q	Q	Q	Q	Q	
1 to 50	10,203	10,203	6,483	9,412	3,456	1,947	2,425	
51 to 99	18,288	18,288	12,947	17,816	9,855	7,153	6,112	
100	32,789	32,789	18,667	31,745	14,115	11,234	9,110	
Building Never Open/ Electricity Not Used	3,210	754	Q	688	Q	Q	Q	
Percent Lit When Closed								
Zero	17,385	16,238	7,932	15,284	3,944	3,946	3,202	
1 to 50	30,948	30,948	19,169	30,185	13,696	10,741	8,126	
51 to 100	2,093	2,093	1,285	2,027	975	850	642	
Building Never Closed/ Electricity Not Used	14,357	12,781	10,142	12,192	8,957	5,105	5,733	

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Table B44. Lighting Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)							
	All Buildings*	Lit Buildings	Lighting Equipment Types (more than one may apply)					Halogen
			Incand- escent	Standard Fluor- escent	Compact Fluor- escent	High- Intensity Discharge		
All Buildings*	64,783	62,060	38,528	59,688	27,571	20,643	17,703	
Lighting Equipment Types (more than one may apply)								
Incandescent	38,528	38,528	38,528	37,239	21,329	14,648	14,163	
Standard Fluorescent	59,688	59,688	37,239	59,688	26,861	20,142	17,120	
Compact Fluorescent	27,571	27,571	21,329	26,861	27,571	12,576	11,937	
High Intensity Discharge	20,643	20,643	14,648	20,142	12,576	20,643	9,747	
Halogen	17,703	17,703	14,163	17,120	11,937	9,747	17,703	
Other	269	269	Q	Q	Q	Q	Q	
Window and Interior Lighting Features (more than one may apply)								
Multipaned Windows	38,910	38,424	25,727	37,660	20,119	14,503	13,124	
Tinted Window Glass	29,887	29,365	18,489	28,746	15,891	11,918	10,155	
Reflective Window Glass	8,544	8,425	6,287	8,268	5,773	4,227	3,826	
External Overhangs or Awnings	17,242	17,087	11,255	16,708	8,357	6,023	5,334	
Skylights or Atriums	12,546	12,486	9,279	12,237	8,220	6,289	5,355	
Daylighting Sensors	2,868	2,868	2,294	2,866	2,241	1,703	1,496	
Specular Reflectors	26,118	26,118	18,183	26,118	15,591	12,104	9,930	
Electronic Ballasts	46,882	46,882	30,132	46,583	24,070	17,727	14,691	
Energy Management and Control System (EMCS) For Lighting	4,781	4,781	3,410	4,660	3,520	2,482	2,107	
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a								
Heating	42,722	42,305	26,468	41,078	19,895	14,125	12,169	
Cooling	43,205	42,977	27,055	41,816	20,272	14,612	12,630	
Lighting	46,987	46,987	27,178	45,368	17,968	14,743	11,455	
Office Equipment	19,397	19,349	10,095	18,742	6,533	5,154	4,089	

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled. N=No responding cases in sample.

Notes: ● HVAC = Heating, Ventilation, and Air Conditioning. ● Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 2003 Commercial Buildings Energy Consumption Survey.

Table B45. Refrigeration Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)							
	All Buildings*	Buildings with Any Refrigeration Equipment	Type of Equipment (more than one may apply)					
			Commercial Refrigeration				Other Refrigeration	
			Any	Walk-In Units	Open Cases or Cabinets	Closed Cases or Cabinets	Residential-Type Units	Vending Machines
All Buildings*	4,645	3,176	1,007	666	308	696	2,370	996
Building Floorspace (Square Feet)								
1,001 to 5,000	2,552	1,591	486	332	142	353	1,159	268
5,001 to 10,000	889	642	188	124	65	117	494	181
10,001 to 25,000	738	548	138	75	40	103	427	250
25,001 to 50,000	241	196	78	44	19	53	148	134
50,001 to 100,000	129	114	60	44	19	34	81	89
100,001 to 200,000	65	58	36	29	13	23	41	48
200,001 to 500,000	25	21	16	14	7	9	16	19
Over 500,000	7	6	5	5	3	3	4	6
Principal Building Activity								
Education	386	254	93	59	31	54	203	113
Food Sales	226	212	205	167	93	159	48	56
Food Service	297	296	283	239	90	219	118	53
Health Care	129	116	23	14	7	11	110	25
Inpatient	8	8	8	7	4	5	7	7
Outpatient	121	108	15	Q	Q	6	103	18
Lodging	142	126	42	26	6	29	107	75
Retail (Other Than Mall).....	443	319	98	47	25	65	215	95
Office	824	643	53	17	22	25	577	194
Public Assembly	277	210	74	40	9	51	152	55
Public Order and Safety	71	67	13	Q	Q	Q	56	38
Religious Worship	370	271	41	Q	Q	31	255	31
Service	622	362	Q	Q	Q	Q	298	145
Warehouse and Storage	597	225	47	34	Q	15	173	93
Other	79	51	14	10	Q	12	41	19
Vacant	182	24	Q	Q	Q	Q	Q	Q
Year Constructed								
Before 1920	330	243	77	52	23	61	201	40
1920 to 1945	527	342	111	61	33	81	256	93
1946 to 1959	562	401	140	71	35	97	308	114
1960 to 1969	579	396	112	78	37	81	300	156
1970 to 1979	731	511	155	109	39	101	379	175
1980 to 1989	707	487	145	109	46	97	365	148
1990 to 1999	876	598	189	129	64	129	428	205
2000 to 2003	334	199	78	58	30	49	134	65
Census Region and Division								
Northeast	726	518	177	119	48	127	398	156
New England	233	164	58	44	19	42	136	51
Middle Atlantic	493	355	119	75	29	85	262	104
Midwest	1,266	872	287	182	75	210	660	267
East North Central	696	496	189	121	48	135	353	155
West North Central	571	377	98	62	27	75	307	112
South	1,775	1,203	367	244	132	252	860	397
South Atlantic	874	607	191	127	75	130	419	194
East South Central	348	238	63	40	18	43	175	90
West South Central	553	358	113	76	39	78	266	113
West	878	583	176	122	53	107	452	176
Mountain	299	202	54	39	14	30	166	75
Pacific	580	381	122	83	39	76	287	101

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Table B45. Refrigeration Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)							
	All Buildings*	Buildings with Any Refrigeration Equipment	Type of Equipment (more than one may apply)					
			Commercial Refrigeration				Other Refrigeration	
			Any	Walk-In Units	Open Cases or Cabinets	Closed Cases or Cabinets	Residential-Type Units	Vending Machines
All Buildings*	4,645	3,176	1,007	666	308	696	2,370	996
Climate Zone: 30-Year Average								
Under 2,000 CDD and --								
More than 7,000 HDD	855	591	184	130	50	137	470	184
5,500-7,000 HDD	1,173	801	278	189	78	185	597	252
4,000-5,499 HDD	673	502	151	92	43	105	374	167
Fewer than 4,000 HDD	1,276	832	254	157	84	170	593	245
2,000 CDD or More and --								
Fewer than 4,000 HDD	669	451	141	98	53	98	336	148
Number of Floors								
One	3,136	1,992	626	440	201	426	1,446	553
Two	1,031	787	232	140	66	158	612	276
Three	339	276	92	49	26	72	220	97
Four to Nine	128	110	50	33	12	34	85	61
Ten or More	12	11	7	5	4	5	7	9
Number of Workers (main shift)								
Fewer than 5	2,653	1,494	438	248	111	313	1,123	272
5 to 9	778	629	179	126	52	134	471	176
10 to 19	563	474	146	108	51	93	357	165
20 to 49	398	346	126	90	41	86	255	194
50 to 99	147	132	62	49	25	36	93	103
100 to 249	77	73	39	32	21	23	50	61
250 or More	30	28	17	13	8	11	20	25
Weekly Operating Hours								
Fewer than 40	1,002	483	88	40	20	54	421	54
40 to 48	1,117	771	105	53	31	66	663	211
49 to 60	1,062	782	168	100	40	105	626	259
61 to 84	591	490	235	142	72	174	316	198
85 to 167	400	336	263	229	95	190	127	117
Open Continuously	475	314	146	104	50	107	216	157
Multibuilding Facility								
Not Part of a Multibuilding								
Facility	3,169	2,372	819	553	256	576	1,702	675
College or University	83	59	15	11	3	10	40	42
Primary or Secondary School	254	119	46	37	11	27	88	54
Office Complex	111	77	15	6	10	5	61	28
Retail Complex	151	83	25	Q	Q	18	66	45
Religious Campus or Complex	195	131	25	Q	Q	18	124	19
Health Care Complex	39	32	11	8	3	8	31	18
Lodging or Resort Complex	61	52	14	Q	Q	13	37	21
Government Complex	87	53	8	Q	Q	Q	44	27
Other	496	200	30	17	Q	15	177	68

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Table B45. Refrigeration Equipment, Number of Buildings for Non-Mall Buildings, 2003

	Number of Buildings (thousand)							
	All Buildings*	Buildings with Any Refrigeration Equipment	Type of Equipment (more than one may apply)					
			Commercial Refrigeration				Other Refrigeration	
			Any	Walk-In Units	Open Cases or Cabinets	Closed Cases or Cabinets	Residential-Type Units	Vending Machines
All Buildings*	4,645	3,176	1,007	666	308	696	2,370	996
Energy Sources (more than one may apply)								
Electricity	4,404	3,176	1,007	666	308	696	2,370	996
Natural Gas	2,391	1,892	666	450	190	473	1,375	656
Fuel Oil	451	361	121	80	35	83	294	134
District Heat	67	51	13	9	5	10	36	36
District Chilled Water	33	25	8	6	3	6	17	19
Propane	502	396	149	97	44	104	307	135
Other	132	93	16	10	5	12	82	34
Energy End Uses (more than one may apply)								
Buildings with Space Heating	3,982	3,014	934	619	287	645	2,278	953
Buildings with Cooling	3,625	2,848	943	631	286	655	2,106	915
Buildings with Water Heating	3,472	2,828	947	632	285	653	2,113	895
Buildings with Cooking	801	797	590	454	181	431	479	256
Buildings with Manufacturing	119	96	20	17	Q	11	82	42
Buildings with Electricity Generation	149	136	67	51	27	41	109	100
Energy-Related Space Functions (more than one may apply)								
Commercial Food Preparation	799	797	590	454	181	431	479	256
Activities with Large Amounts of Hot Water	567	527	330	249	107	231	329	237
Separate Computer Area	553	470	165	115	58	102	372	283

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet.

See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample.

Notes: ● HVAC = Heating, Ventilation, and Air Conditioning. ● Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 2003 Commercial Buildings Energy Consumption Survey.

Table B46. Refrigeration Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)							
	All Buildings*	Buildings with Any Refrigeration Equipment	Type of Equipment (more than one may apply)					
			Commercial Refrigeration				Other Refrigeration	
			Any	Walk-In Units	Open Cases or Cabinets	Closed Cases or Cabinets	Residential-Type Units	Vending Machines
All Buildings*	64,783	52,974	26,768	20,254	10,425	17,218	38,884	35,335
Building Floorspace (Square Feet)								
1,001 to 5,000	6,789	4,333	1,310	916	366	935	3,174	830
5,001 to 10,000	6,585	4,738	1,406	909	497	894	3,609	1,407
10,001 to 25,000	11,535	8,646	2,230	1,188	614	1,665	6,725	4,072
25,001 to 50,000	8,668	7,068	2,829	1,626	676	1,933	5,289	4,910
50,001 to 100,000	9,057	8,038	4,291	3,124	1,354	2,438	5,760	6,342
100,001 to 200,000	9,064	8,096	5,116	4,148	1,926	3,302	5,667	6,578
200,001 to 500,000	7,176	6,238	4,606	4,199	2,034	2,685	4,524	5,691
Over 500,000	5,908	5,816	4,979	4,146	2,958	3,366	4,136	5,506
Principal Building Activity								
Education	9,874	9,066	6,485	5,157	2,634	3,470	6,460	7,127
Food Sales	1,255	1,210	1,177	1,069	804	902	306	551
Food Service	1,654	1,651	1,616	1,495	491	1,234	605	426
Health Care	3,163	3,013	2,131	1,942	1,244	1,671	2,656	2,262
Inpatient	1,905	1,905	1,869	1,828	1,178	1,508	1,667	1,776
Outpatient	1,258	1,108	262	Q	Q	163	989	485
Lodging	5,096	4,780	3,333	2,844	985	2,035	3,696	4,199
Retail (Other Than Mall).....	4,317	3,447	1,336	670	651	1,152	2,276	1,952
Office	12,208	10,642	4,045	2,757	1,972	2,530	8,335	7,661
Public Assembly	3,939	3,302	1,805	1,235	308	1,494	2,258	1,607
Public Order and Safety	1,090	1,031	565	Q	Q	Q	883	868
Religious Worship	3,754	3,163	821	Q	Q	635	2,881	731
Service	4,050	2,992	Q	Q	Q	Q	2,464	1,902
Warehouse and Storage	10,078	6,499	2,032	1,517	Q	775	4,667	4,719
Other	1,738	1,570	841	780	Q	682	986	1,189
Vacant	2,567	608	Q	Q	Q	Q	Q	Q
Year Constructed								
Before 1920	3,769	2,939	1,297	990	396	807	2,323	1,074
1920 to 1945	6,871	5,006	2,580	1,853	1,079	1,566	4,088	3,426
1946 to 1959	7,045	6,028	3,544	2,399	1,242	2,114	4,700	3,332
1960 to 1969	8,101	6,610	3,090	2,324	1,226	2,117	4,898	4,699
1970 to 1979	10,772	8,830	4,422	3,461	1,818	2,889	6,412	6,208
1980 to 1989	10,332	8,725	4,728	3,840	1,866	3,247	6,253	6,219
1990 to 1999	12,360	10,347	4,568	3,341	1,627	2,880	7,130	7,248
2000 to 2003	5,533	4,488	2,539	2,046	1,172	1,597	3,081	3,127
Census Region and Division								
Northeast	12,905	10,842	5,936	4,452	2,361	3,652	8,288	6,559
New England	2,964	2,474	1,107	889	389	790	2,037	1,569
Middle Atlantic	9,941	8,367	4,830	3,563	1,972	2,861	6,251	4,990
Midwest	17,080	14,082	7,122	5,201	2,120	4,400	10,792	9,400
East North Central	11,595	9,538	5,286	3,860	1,679	3,228	7,247	6,583
West North Central	5,485	4,544	1,835	1,341	441	1,172	3,545	2,817
South	23,489	19,103	9,638	7,469	4,298	6,514	13,162	13,534
South Atlantic	12,258	10,256	5,426	4,324	2,581	3,568	7,043	7,066
East South Central	3,393	2,829	1,145	862	420	941	1,834	2,056
West South Central	7,837	6,018	3,067	2,284	1,297	2,004	4,285	4,412
West	11,310	8,947	4,072	3,132	1,646	2,652	6,642	5,841
Mountain	3,675	3,028	1,398	1,073	672	781	2,232	2,058
Pacific	7,635	5,919	2,674	2,059	974	1,871	4,410	3,783

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Table B46. Refrigeration Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)							
	All Buildings*	Buildings with Any Refrigeration Equipment	Type of Equipment (more than one may apply)					
			Commercial Refrigeration				Other Refrigeration	
			Any	Walk-In Units	Open Cases or Cabinets	Closed Cases or Cabinets	Residential-Type Units	Vending Machines
All Buildings*	64,783	52,974	26,768	20,254	10,425	17,218	38,884	35,335
Climate Zone: 30-Year Average								
Under 2,000 CDD and --								
More than 7,000 HDD	10,622	8,673	4,106	3,188	1,296	2,495	6,713	5,824
5,500-7,000 HDD	17,335	14,438	7,355	5,353	2,808	4,601	10,957	9,186
4,000-5,499 HDD	11,504	9,893	5,702	4,341	2,220	3,654	7,367	6,729
Fewer than 4,000 HDD	15,739	12,329	5,784	4,490	2,408	3,793	8,479	8,220
2,000 CDD or More and --								
Fewer than 4,000 HDD	9,584	7,640	3,821	2,882	1,694	2,675	5,369	5,375
Number of Floors								
One	25,981	18,869	7,620	5,257	2,649	4,813	13,230	10,272
Two	16,270	13,758	6,309	4,898	2,010	3,937	10,456	8,818
Three	7,501	6,550	3,065	2,044	990	2,174	5,021	4,575
Four to Nine	10,085	9,083	6,002	5,185	2,447	3,566	6,744	7,521
Ten or More	4,947	4,715	3,773	2,871	2,328	2,727	3,433	4,150
Number of Workers (main shift)								
Fewer than 5	15,492	8,221	2,390	1,159	449	1,717	6,271	2,239
5 to 9	6,166	5,109	1,592	867	378	1,182	3,862	1,938
10 to 19	7,803	6,608	2,182	1,538	491	1,136	5,242	3,516
20 to 49	10,989	9,759	4,415	3,262	1,262	2,873	7,011	6,949
50 to 99	7,934	7,346	4,475	3,693	1,447	2,363	5,084	6,197
100 to 249	6,871	6,619	4,399	3,776	2,193	2,877	4,726	5,960
250 or More	9,528	9,313	7,314	5,960	4,204	5,068	6,687	8,536
Weekly Operating Hours								
Fewer than 40	6,863	3,376	933	557	242	561	2,808	763
40 to 48	11,622	9,130	3,156	2,190	1,109	1,968	7,358	5,286
49 to 60	15,723	12,833	5,218	3,745	1,815	2,973	9,804	8,207
61 to 84	10,334	9,304	4,350	2,996	1,625	2,844	6,490	6,234
85 to 167	7,092	6,384	4,314	3,184	1,554	2,987	3,941	4,639
Open Continuously	13,149	11,947	8,797	7,582	4,081	5,885	8,484	10,205
Multibuilding Facility								
Not Part of a Multibuilding								
Facility	40,048	33,711	16,426	11,954	6,307	10,842	24,007	20,526
College or University	3,480	3,041	1,295	1,009	Q	902	1,780	2,805
Primary or Secondary School	3,947	3,195	2,352	2,092	901	1,171	2,287	2,384
Office Complex	2,712	2,059	857	604	484	575	1,658	1,650
Retail Complex	1,238	833	265	Q	Q	219	651	623
Religious Campus or Complex	2,347	1,940	870	Q	Q	320	1,743	763
Health Care Complex	2,303	2,233	1,858	1,754	959	1,421	2,032	1,975
Lodging or Resort Complex	912	850	492	Q	Q	427	584	682
Government Complex	2,014	1,441	799	Q	Q	Q	1,177	1,305
Other	5,783	3,671	1,554	1,306	Q	1,021	2,965	2,622

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Table B46. Refrigeration Equipment, Floorspace for Non-Mall Buildings, 2003

	Total Floorspace (million square feet)							
	All Buildings*	Buildings with Any Refrigeration Equipment	Type of Equipment (more than one may apply)					
			Commercial Refrigeration				Other Refrigeration	
			Any	Walk-In Units	Open Cases or Cabinets	Closed Cases or Cabinets	Residential-Type Units	Vending Machines
All Buildings*	64,783	52,974	26,768	20,254	10,425	17,218	38,884	35,335
Energy Sources (more than one may apply)								
Electricity	63,307	52,974	26,768	20,254	10,425	17,218	38,884	35,335
Natural Gas	43,468	38,436	21,376	16,719	8,485	14,146	28,365	26,647
Fuel Oil	15,157	14,221	9,936	8,267	4,557	6,636	11,118	11,387
District Heat	5,443	4,568	2,716	2,131	1,395	2,005	3,163	4,108
District Chilled Water	2,853	2,594	1,490	1,091	593	1,056	1,899	2,376
Propane	7,076	6,065	3,237	2,495	1,268	2,012	4,473	4,132
Other	1,401	1,231	616	466	200	417	957	850
Energy End Uses (more than one may apply)								
Buildings with Space Heating	60,028	51,451	26,088	19,764	10,165	16,707	37,825	34,470
Buildings with Cooling	56,940	50,080	25,872	19,803	10,202	16,729	36,662	34,063
Buildings with Water Heating	56,478	50,212	26,153	19,986	10,145	16,882	36,777	33,964
Buildings with Cooking	22,237	22,193	19,665	16,422	8,532	13,219	15,911	16,471
Buildings with Manufacturing	3,138	2,771	973	756	Q	530	2,170	2,338
Buildings with Electricity Generation	12,821	12,351	9,247	7,765	4,617	6,272	9,564	11,183
Energy-Related Space Functions (more than one may apply)								
Commercial Food Preparation	22,223	22,193	19,665	16,422	8,532	13,219	15,911	16,471
Activities with Large Amounts of Hot Water	19,482	19,029	15,765	13,809	6,973	10,493	13,751	15,022
Separate Computer Area	26,873	25,237	16,650	13,420	7,695	10,097	18,674	21,343

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet.

See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample.

Notes: ● HVAC = Heating, Ventilation, and Air Conditioning. ● Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 2003 Commercial Buildings Energy Consumption Survey.