Release date: April 2015
Revised date: May 2016

Table B38. Heating equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	5,557	4,722	628	755	1,247	48	544	2,802	62
Building floorspace (square feet)									
1,001 to 5,000	2,777	2,257	286	359	612	Q	128	1,259	Q
5,001 to 10,000	1,229	1,046	147	194	281	Q	99	628	Q
10,001 to 25,000	884	797	93	140	195	Q	123	511	Q
25,001 to 50,000	332	304	46	40	84	6	75	202	Q
50,001 to 100,000	199	187	39	15	41	10	69	120	8
100,001 to 200,000	90	86	12	5	21	9	31	55	Q
200,001 to 500,000	38	36	5	2	11	5	17	21	Q
Over 500,000	8	8	1	(*)	2	2	3	4	Q
Principal building activity									
Education	389	379	62	26	45	12	96	223	Q
Food sales	177	160	Q	Q	31	N	Q	111	Q
Food service	380	359	32	53	52	Q	23	251	Q
Health care	157	153	24	23	32	2	23	101	Q
Inpatient	10	9	2	(*)	2	1	6	5	Q
Outpatient	147	144	21	22	29	Q	17	97	N
Lodging	158	153	39	21	60	4	38	55	Q
Mercantile	602	572	83	89	136	Q	59	402	13
Retail (other than mall)	438	412	53	52	96	Q	35	257	Q
Enclosed and strip malls	164	160	31	37	39	Q	24	145	11
Office	1,012	989	157	196	234	12	110	560	Q
Public assembly	352	330	42	61	80	7	41	183	Q
Public order and safety	84	81	Q	Q	24	Q	14	43	Q
Religious worship	412	408	52	91	89	N	61	236	Q
Service	619	528	43	70	259	Q	30	285	Q
Warehouse and storage	796	420	53	58	150	Q	18	246	Q
Other	125	100	Q	Q	39	Q	14	58	Q
Vacant	296	87	Q	Q	Q	Q	13	48	Q
Year constructed									
Before 1920	362	322	29	61	113	5	58	161	Q
1920 to 1945	488	413	38	50	136	7	74	221	Q
1946 to 1959	599	517	70	76	170	5	75	283	Q
1960 to 1969	639	559	61	88	160	9	91	343	Q
1970 to 1979	684	599	57	107	185	10	59	370	Q
1980 to 1989	915	754	126	138	167	2	49	442	Q
1990 to 1999	845	675	102	118	139	3	50	421	11
2000 to 2003	375	322	42	52	60	4	35	201	Q
2004 to 2007	347	291	58	29	58	2	26	196	Q
2008 to 2012	303	270	46	36	60	Q	28	163	Q

Table B38. Heating equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	5,557	4,722	628	755	1,247	48	544	2,802	62
Census region and division									
Northeast	805	727	48	85	239	16	221	347	Q
New England	302	264	14	27	92	Q	87	112	Q
Middle Atlantic	504	463	34	58	147	9	134	235	Q
Midwest	1,237	1,096	53	252	340	7	148	644	22
East North Central	735	670	23	159	184	3	101	410	Q
West North Central	502	426	31	92	157	4	47	235	Q
South	2,247	1,842	392	282	381	18	98	1,127	16
South Atlantic	1,091	873	279	87	162	9	52	504	Q
East South Central	370	336	51	58	88	Q	15	225	Q
West South Central	786	633	62	137	131	5	30	399	Q
West	1,267	1,057	134	137	287	7	77	683	14
Mountain	338	293	25	53	102	Q	25	178	Q
Pacific	929	764	109	84	185	5	52	505	Q
Climate region[1]									
Very cold/Cold	2,031	1,792	99	313	612	18	332	991	37
Mixed-humid	1,743	1,545	324	272	389	20	135	871	13
Mixed-dry/Hot-dry	837	676	96	78	135	4	38	471	Q
Hot-humid	799	593	91	79	76	Q	32	395	Q
Marine	147	116	Q	Q	35	Q	7	74	Q
Number of floors									
One	3,836	3,113	415	471	818	Q	184	1,904	42
Two	1,158	1,072	146	203	274	11	164	655	14
Three	374	355	37	61	106	10	119	168	Q
Four to nine	177	170	28	21	46	18	71	71	Q
Ten or more	13	12	3	Q	3	3	6	4	Q
Number of workers (main shift)									
Fewer than 5	2,892	2,184	246	330	672	Q	182	1,171	Q
5 to 9	1,085	1,020	159	186	239	Q	79	618	Q
10 to 19	731	692	85	142	149	Q	77	458	Q
20 to 49	513	494	81	69	114	11	88	342	10
50 to 99	206	203	38	23	46	7	58	139	Q
100 to 249	93	92	13	5	18	7	44	55	2
250 or more	37	37	5	1	8	6	16	18	Q
Weekly operating hours									
Fewer than 40	1,149	815	108	156	215	Q	77	416	Q
40 to 48	1,346	1,230	162	212	343	7	114	712	Q
49 to 60	1,244	1,143	153	188	340	11	138	672	Q
61 to 84	764	672	100	87	167	9	97	453	9
85 to 167	479	414	40	53	69	6	40	301	13
Open continuously	575	448	65	60	113	11	77	248	Q

Table B38. Heating equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	5,557	4,722	628	755	1,247	48	544	2,802	62
Ownership and occupancy									
Nongovernment owned	4,781	4,028	507	681	1,068	22	405	2,443	55
Owner occupied	2,466	2,198	286	378	585	13	243	1,249	26
Leased to tenant(s)	1,745	1,458	164	236	383	Q	120	969	26
Owner occupied and leased	349	325	54	57	91	2	38	201	Q
Unoccupied	221	47	Q	Q	Q	Q	Q	25	Q
Government owned	776	694	121	74	179	26	139	359	Q
Federal	33	33	Q	Q	Q	1	7	20	Q
State	185	168	28	19	45	18	31	84	Q
Local	558	493	90	51	126	7	102	255	Q
Party responsible for operation and maintenance of energy systems									
Building owner	4,715	3,983	541	631	1,052	45	489	2,291	50
Business owner or tenant	724	634	66	110	173	Q	42	448	11
Property management	54	43	Q	Q	8	Q	Q	28	Q
Other	64	63	Q	Q	Q	Q	11	34	N
Provider of direct input on energy-related equipment purchases									
Building owner	4,876	4,120	565	665	1,078	45	497	2,394	51
Business owner or tenant	540	472	40	75	143	Q	33	326	9
Property management	35	32	Q	Q	6	Q	Q	22	Q
Other	106	99	19	Q	21	Q	13	61	Q
Campus or complex activity									
Not part of a campus or complex	3,683	3,272	388	547	872	Q	357	2,000	48
Primary or secondary school	237	223	40	10	32	Q	28	149	Q
College or university	84	81	15	Q	10	22	19	30	Q
Office complex	154	148	21	30	33	Q	11	82	Q
Retail complex	258	225	34	41	60	N	18	162	8
Storage complex	314	69	Q	Q	28	N	Q	29	N
Religious campus or complex	197	190	28	36	30	Q	37	103	N
Health care complex	52	47	Q	9	9	Q	10	24	Q
Lodging or resort complex	65	57	11	Q	25	Q	9	15	N
Transportation complex	35	32	Q	Q	14	Q	Q	16	N
Government complex	104	83	14	Q	31	2	19	39	Q
Other	371	296	56	51	104	Q	28	152	Q

Table B38. Heating equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	5,557	4,722	628	755	1,247	48	544	2,802	62
Renovations in buildings constructed before 2008 (more than one may apply)									
Any type of renovation	2,094	1,943	260	332	558	27	290	1,182	26
Addition or annex	444	425	69	91	109	4	72	265	Q
Reduction in floorspace	71	63	7	Q	18	Q	10	40	Q
Roof replacement	987	912	114	167	259	12	164	533	14
Exterior wall replacement	194	181	27	31	57	1	27	111	Q
Interior wall reconfiguration	889	832	115	151	244	14	125	526	7
Window replacement	560	536	83	106	163	6	110	315	Q
HVAC equipment upgrade	1,101	1,050	167	209	301	17	174	659	13
Lighting upgrade	982	924	139	160	260	18	162	571	11
Electrical upgrade	747	696	104	118	214	11	120	430	Q
Plumbing system upgrade	644	603	85	104	179	8	105	378	Q
Insulation upgrade	382	363	62	81	105	6	65	221	Q
Fire, safety, or security upgrade	616	582	84	97	176	12	106	366	Q
Structural upgrade	152	150	23	27	43	Q	31	88	Q
Other	39	30	Q	Q	13	Q	Q	19	Q
No renovations	3,160	2,509	322	387	629	19	227	1,457	31
Buildings constructed 2008 or later	303	270	46	36	60	Q	28	163	Q
Energy sources (more than one may apply)									
Electricity	5,234	4,717	628	755	1,246	48	543	2,802	60
Natural gas	2,933	2,888	233	550	774	17	409	1,901	36
Fuel oil	467	455	44	42	177	10	139	218	Q
District heat	48	48	3	Q	9	48	Q	3	Q
District chilled water	54	51	Q	Q	7	26	9	16	Q
Propane	510	491	49	95	195	Q	58	250	19
Other	172	172	29	25	93	1	28	77	Q
Space-heating energy sources (more than one may apply)									
Electricity	2,858	2,858	611	366	868	12	225	1,785	46
Natural gas	2,612	2,612	188	530	722	2	390	1,717	34
Fuel oil	270	270	18	20	118	Q	85	116	Q
District heat	48	48	3	Q	9	48	Q	3	Q
Propane	342	342	26	72	146	Q	31	181	Q
Other	101	101	Q	Q	72	Q	Q	30	Q
Primary space-heating energy source									
Electricity	1,819	1,819	484	191	392	Q	83	1,057	14
Natural gas	2,322	2,322	117	485	622	Q	355	1,506	27
Fuel oil	205	205	Q	Q	81	Q	71	85	Q
District heat	47	47	2	Q	8	47	Q	3	Q
Propane	261	261	Q	59	96	N	23	135	Q
Other	67	67	Q	Q	47	N	Q	Q	Q

Table B38. Heating equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	5,557	4,722	628	755	1,247	48	544	2,802	62
Energy end uses (more than one may apply)									
Buildings with space heating	4,722	4,722	628	755	1,247	48	544	2,802	62
Buildings with cooling	4,461	4,272	621	728	1,007	44	483	2,633	55
Buildings with water heating	4,423	4,237	581	711	1,072	45	521	2,575	50
Buildings with cooking	1,589	1,525	205	280	352	14	259	950	36
Buildings with manufacturing	259	234	25	36	85	Q	20	157	Q
Buildings with electricity generation	410	400	59	52	120	15	118	232	8
Percent of floorspace heated									
Not heated	835	N	N	N	N	N	N	N	N
1 to 50	697	697	81	76	233	Q	34	381	Q
51 to 99	727	727	99	104	210	7	102	456	13
100	3,298	3,298	448	575	805	40	407	1,965	39
Heating equipment (more than one may apply)									
Heat pumps	628	628	628	53	110	3	49	150	Q
Furnaces	755	755	53	755	179	Q	33	178	Q
Individual space heaters	1,247	1,247	110	179	1,247	9	120	476	22
District heat	48	48	3	Q	9	48	Q	3	Q
Boilers	544	544	49	33	120	Q	544	163	Q
Packaged heating units	2,802	2,802	150	178	476	3	163	2,802	26
Other	62	62	Q	Q	22	Q	Q	26	62
Cooling equipment (more than one may apply)									
Residential-type central air conditioners	1,546	1,476	86	530	325	Q	119	870	24
Heat pumps	692	685	549	60	124	2	55	249	Q
Individual air conditioners	709	643	46	92	352	6	133	258	Q
District chilled water	54	51	Q	Q	7	26	9	16	Q
Central chillers	163	158	13	10	32	8	106	69	Q
Packaged air conditioning units	1,909	1,841	118	194	338	11	203	1,589	23
Swamp coolers	109	99	8	Q	55	Q	12	57	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	N
Main equipment replaced since 1990 (more than one may apply)									
Heating	1,874	1,874	291	318	530	Q	237	1,103	20
Cooling	1,971	1,879	293	353	514	11	234	1,095	22
HVAC conservation features (more than one may apply)									
Economizer cycle	601	589	91	60	118	23	137	427	8
Regular HVAC maintenance	3,178	3,078	465	509	565	40	446	2,012	35
Building automation system (BAS)[2]	781	768	110	77	117	30	186	523	15

Table B38. Heating equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	5,557	4,722	628	755	1,247	48	544	2,802	62
Equipment usage reduced when building not in full use (more than one may apply)									
Heating	3,699	3,699	471	637	964	32	403	2,257	43
Cooling	3,517	3,391	463	602	799	31	374	2,136	44
Lighting	4,757	4,406	591	721	1,172	45	515	2,623	57

[1]These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

[2]In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)* .

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

N = No cases in reporting sample.

Notes: ● Because of rounding, data may not sum to totals. ● See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from http://www.eia.gov/consumption/commercial/data/2012/

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.

Release date: April 2015
Revised date: May 2016

Table B39. Heating equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	87,093	80,078	11,846	8,654	20,766	5,925	22,443	49,188	1,574
Building floorspace (square feet)									
1,001 to 5,000	8,041	6,699	868	1,091	1,747	Q	400	3,809	Q
5,001 to 10,000	8,900	7,590	1,038	1,416	2,025	Q	734	4,622	Q
10,001 to 25,000	14,105	12,744	1,477	2,233	3,115	Q	2,008	8,246	Q
25,001 to 50,000	11,917	10,911	1,642	1,439	3,021	213	2,707	7,237	Q
50,001 to 100,000	13,918	13,114	2,664	1,042	2,763	704	4,938	8,489	541
100,001 to 200,000	12,415	11,941	1,549	683	2,915	1,313	4,258	7,569	Q
200,001 to 500,000	10,724	10,348	1,527	466	2,970	1,553	4,970	5,991	Q
Over 500,000	7,074	6,730	1,080	284	2,211	1,974	2,430	3,225	Q
Principal building activity									
Education	12,239	12,099	2,209	564	1,750	1,155	6,637	6,107	Q
Food sales	1,252	1,196	Q	Q	336	N	Q	944	Q
Food service	1,819	1,762	146	266	256	Q	145	1,296	Q
Health care	4,155	4,109	739	258	967	671	2,285	2,085	Q
Inpatient	2,374	2,354	506	124	501	563	1,698	1,073	Q
Outpatient	1,781	1,754	233	133	466	Q	588	1,012	N
Lodging	5,826	5,696	1,259	638	2,168	621	2,105	2,561	Q
Mercantile	11,330	10,794	1,419	1,423	2,568	Q	1,138	9,434	872
Retail (other than mall)	5,439	5,088	441	590	1,007	Q	312	3,964	Q
Enclosed and strip malls	5,890	5,706	978	832	1,561	Q	826	5,470	860
Office	15,952	15,753	2,667	1,691	3,727	1,794	4,650	8,407	Q
Public assembly	5,559	5,323	727	582	1,560	888	1,621	3,016	Q
Public order and safety	1,440	1,391	Q	Q	253	Q	466	601	Q
Religious worship	4,557	4,511	581	927	859	N	1,359	2,801	Q
Service	4,630	4,157	356	497	1,919	Q	433	2,498	Q
Warehouse and storage	13,077	9,987	1,138	1,294	3,480	Q	841	7,297	Q
Other	2,002	1,886	Q	Q	737	Q	408	1,257	Q
Vacant	3,256	1,415	Q	Q	Q	Q	296	886	Q
Year constructed									
Before 1920	3,983	3,583	371	524	1,442	523	1,221	1,380	Q
1920 to 1945	6,025	5,527	744	393	1,717	888	2,016	2,589	Q
1946 to 1959	7,381	6,895	907	685	2,277	446	2,659	3,715	Q
1960 to 1969	10,362	9,730	1,295	1,168	2,586	1,002	3,506	5,670	Q
1970 to 1979	10,846	10,045	1,198	1,345	2,923	930	2,763	6,156	Q
1980 to 1989	15,230	13,723	2,386	1,763	3,424	446	2,973	9,037	Q
1990 to 1999	13,803	12,389	2,136	1,266	2,996	642	2,970	8,544	397
2000 to 2003	7,215	6,707	808	551	1,292	Q	1,636	4,281	Q
2004 to 2007	6,524	5,972	1,174	516	1,160	Q	1,395	4,076	Q
2008 to 2012	5,723	5,505	826	442	948	Q	1,303	3,741	Q

Table B39. Heating equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	87,093	80,078	11,846	8,654	20,766	5,925	22,443	49,188	1,574
Census region and division									
Northeast	15,534	15,053	1,397	1,244	4,918	1,981	6,447	7,186	Q
New England	4,302	4,090	400	323	1,529	Q	1,823	1,769	Q
Middle Atlantic	11,232	10,963	998	922	3,389	1,628	4,624	5,417	Q
Midwest	18,919	18,055	1,068	2,511	5,735	906	6,666	10,894	370
East North Central	12,742	12,240	632	1,756	3,668	574	5,083	7,347	Q
West North Central	6,178	5,815	436	755	2,066	332	1,583	3,547	Q
South	34,279	30,499	6,927	3,363	6,519	2,171	5,784	20,049	550
South Atlantic	17,981	15,883	4,909	1,234	3,328	1,148	3,247	10,168	Q
East South Central	4,904	4,692	844	530	1,295	Q	1,077	3,136	Q
West South Central	11,394	9,923	1,174	1,599	1,896	637	1,460	6,745	Q
West	18,360	16,471	2,453	1,536	3,594	867	3,545	11,059	339
Mountain	4,981	4,704	498	554	1,197	482	1,150	2,967	Q
Pacific	13,379	11,767	1,955	983	2,397	385	2,395	8,092	242
Climate region[1]									
Very cold/Cold	31,898	30,469	2,150	3,558	10,128	1,926	11,556	17,640	824
Mixed-humid	27,873	26,716	6,182	3,009	6,697	3,002	7,029	15,485	487
Mixed-dry/Hot-dry	12,037	10,484	1,669	995	1,703	Q	1,777	7,351	Q
Hot-humid	12,831	10,090	1,387	937	1,607	362	1,499	7,217	Q
Marine	2,454	2,319	458	Q	631	Q	581	1,495	Q
Number of floors									
One	39,809	34,513	4,642	4,356	8,857	Q	4,257	24,999	1,127
Two	20,206	19,411	2,844	2,518	4,987	Q	5,762	13,422	297
Three	8,140	7,896	1,229	857	2,150	544	3,667	3,918	Q
Four to nine	13,535	12,992	2,089	826	3,398	2,791	6,521	5,180	Q
Ten or more	5,404	5,265	1,041	Q	1,374	1,900	2,236	1,669	Q
Number of workers (main shift)									
Fewer than 5	17,751	12,931	1,366	1,921	3,710	Q	1,908	6,967	Q
5 to 9	8,973	8,492	1,230	1,264	2,274	Q	982	5,320	Q
10 to 19	9,623	8,970	1,234	1,758	2,219	Q	1,219	6,041	Q
20 to 49	14,514	14,126	2,268	1,678	3,752	623	3,764	9,817	448
50 to 99	13,476	13,184	2,409	1,278	3,323	669	4,610	9,055	Q
100 to 249	10,941	10,805	1,490	387	2,390	1,096	4,938	6,596	422
250 or more	11,815	11,570	1,849	367	3,097	3,053	5,021	5,393	Q
Weekly operating hours									
Fewer than 40	8,220	5,763	617	980	1,222	Q	1,180	3,012	Q
40 to 48	15,828	14,867	2,230	2,020	3,696	403	3,907	8,633	Q
49 to 60	20,529	19,365	3,183	2,268	4,971	1,099	5,496	11,950	Q
61 to 84	15,867	15,148	2,427	1,262	3,999	828	3,993	10,640	443
85 to 167	9,395	8,711	724	878	2,183	631	2,266	6,372	364
Open continuously	17,253	16,224	2,666	1,246	4,696	2,792	5,601	8,582	Q

Table B39. Heating equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	87,093	80,078	11,846	8,654	20,766	5,925	22,443	49,188	1,574
Ownership and occupancy									
Nongovernment owned	67,550	61,341	8,500	7,472	16,206	3,119	13,405	40,336	1,316
Owner occupied	30,637	28,745	3,841	3,629	7,363	1,825	6,663	17,635	214
Leased to tenant(s)	26,115	23,766	3,022	2,880	6,507	730	4,091	17,239	1,021
Owner occupied and leased	8,873	8,328	1,597	900	2,284	557	2,590	5,102	Q
Unoccupied	1,925	502	Q	Q	Q	Q	Q	360	Q
Government owned	19,543	18,736	3,346	1,182	4,561	2,807	9,038	8,852	Q
Federal	1,573	1,557	212	Q	558	697	471	495	Q
State	5,539	5,411	636	378	1,375	1,526	2,305	2,213	Q
Local	12,431	11,768	2,497	753	2,628	584	6,263	6,144	Q
Party responsible for operation and maintenance of energy systems									
Building owner	73,702	67,644	10,210	7,076	17,425	5,737	20,588	39,517	1,008
Business owner or tenant	11,309	10,534	1,240	1,325	2,895	Q	1,363	8,598	549
Property management	1,250	1,073	Q	Q	227	Q	273	652	Q
Other	832	826	Q	Q	Q	Q	219	422	N
Provider of direct input on energy-related equipment purchases									
Building owner	76,271	70,099	10,579	7,554	17,932	5,694	20,908	41,565	1,041
Business owner or tenant	8,256	7,685	800	812	2,297	Q	1,058	6,096	366
Property management	880	722	Q	Q	201	Q	Q	469	Q
Other	1,686	1,571	369	Q	337	Q	301	1,058	Q
Campus or complex activity									
Not part of a campus or complex	52,275	48,779	6,741	5,649	12,576	960	13,400	32,001	828
Primary or secondary school	4,616	4,486	986	344	647	Q	1,979	2,868	Q
College or university	4,068	4,008	379	Q	574	2,185	1,163	758	Q
Office complex	3,456	3,377	681	208	699	Q	894	1,754	Q
Retail complex	5,159	4,805	675	668	1,508	N	516	4,330	598
Storage complex	3,212	1,285	Q	Q	560	N	Q	691	N
Religious campus or complex	1,932	1,896	207	308	242	Q	565	1,152	N
Health care complex	3,362	3,296	592	250	882	968	1,668	1,509	Q
Lodging or resort complex	1,295	1,181	255	Q	456	Q	350	383	N
Transportation complex	554	496	Q	Q	282	Q	Q	233	N
Government complex	2,107	1,992	259	Q	872	720	715	711	Q
Other	5,057	4,478	876	769	1,468	Q	915	2,799	Q

Table B39. Heating equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	87,093	80,078	11,846	8,654	20,766	5,925	22,443	49,188	1,574
Renovations in buildings constructed before 2008 (more than one may apply)									
Any type of renovation	42,216	40,692	6,295	4,399	12,371	3,964	13,377	25,179	783
Addition or annex	13,022	12,822	2,127	1,526	3,745	1,254	5,423	8,320	Q
Reduction in floorspace	1,753	1,659	303	Q	519	Q	381	991	Q
Roof replacement	20,917	20,344	3,033	2,181	6,534	2,010	8,067	12,038	381
Exterior wall replacement	4,230	4,136	751	466	1,361	353	1,463	2,706	Q
Interior wall reconfiguration	21,340	20,750	3,207	2,233	6,598	2,571	6,940	13,025	313
Window replacement	12,265	12,011	1,850	1,377	3,770	1,431	4,758	6,742	Q
HVAC equipment upgrade	26,779	26,066	4,440	3,075	8,259	2,986	9,286	16,158	499
Lighting upgrade	25,503	24,896	3,933	2,514	8,132	3,037	8,908	15,008	492
Electrical upgrade	16,160	15,661	2,772	1,773	5,398	2,032	5,693	9,467	Q
Plumbing system upgrade	13,828	13,537	2,344	1,500	4,666	1,724	4,987	8,052	Q
Insulation upgrade	7,607	7,371	1,450	1,172	2,509	1,070	2,421	4,417	Q
Fire, safety, or security upgrade	17,196	16,676	3,139	1,736	5,566	2,073	6,630	9,806	Q
Structural upgrade	3,913	3,864	836	449	1,043	697	1,208	2,317	Q
Other	848	751	Q	Q	411	Q	Q	388	Q
No renovations	39,154	33,880	4,725	3,813	7,447	1,770	7,763	20,268	723
Buildings constructed 2008 or later	5,723	5,505	826	442	948	Q	1,303	3,741	Q
Energy sources (more than one may apply)									
Electricity	84,869	80,053	11,846	8,654	20,751	5,925	22,438	49,188	1,570
Natural gas	58,725	58,129	7,560	7,046	15,808	2,833	20,019	37,569	1,194
Fuel oil	20,200	19,670	3,047	870	5,874	3,088	9,340	9,580	Q
District heat	5,964	5,962	556	Q	1,354	5,925	Q	742	Q
District chilled water	4,608	4,561	325	Q	888	3,718	582	756	Q
Propane	7,706	7,332	884	757	2,742	Q	1,772	4,689	277
Other	3,826	3,826	544	429	1,353	335	1,411	2,348	Q
Space-heating energy sources (more than one may apply)									
Electricity	49,030	49,030	11,482	5,040	16,235	1,869	10,721	35,389	1,352
Natural gas	49,511	49,511	5,928	6,837	13,893	350	18,893	32,966	1,094
Fuel oil	4,351	4,351	527	183	1,648	Q	2,556	1,746	Q
District heat	5,925	5,925	556	Q	1,334	5,925	Q	725	Q
Propane	3,067	3,067	385	481	1,217	Q	565	1,963	Q
Other	1,010	1,010	Q	Q	590	Q	Q	411	Q
Primary space-heating energy source									
Electricity	26,205	26,205	7,215	2,270	6,035	Q	2,982	18,523	447
Natural gas	42,988	42,988	3,792	5,778	11,482	Q	17,437	27,826	873
Fuel oil	2,542	2,542	Q	Q	1,008	Q	1,504	757	Q
District heat	5,797	5,797	464	Q	1,271	5,797	Q	650	Q
Propane	1,948	1,948	Q	405	666	N	276	1,193	Q
Other	598	598	Q	Q	305	N	Q	Q	Q

Table B39. Heating equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	87,093	80,078	11,846	8,654	20,766	5,925	22,443	49,188	1,574
Energy end uses (more than one may apply)									
Buildings with space heating	80,078	80,078	11,846	8,654	20,766	5,925	22,443	49,188	1,574
Buildings with cooling	79,294	76,834	11,772	8,514	19,159	5,864	21,579	48,053	1,534
Buildings with water heating	79,015	76,584	11,576	8,420	19,548	5,783	22,020	47,297	1,532
Buildings with cooking	38,546	37,771	6,592	4,005	9,590	3,116	14,847	23,131	1,306
Buildings with manufacturing	5,078	4,790	596	671	2,219	Q	795	3,538	Q
Buildings with electricity generation	25,642	25,155	4,035	1,414	6,857	3,710	11,356	13,943	626
Percent of floorspace heated									
Not heated	7,015	N	N	N	N	N	N	N	N
1 to 50	10,130	10,130	1,390	931	2,964	Q	1,016	6,769	Q
51 to 99	14,650	14,650	2,531	1,628	4,499	1,126	4,532	9,295	550
100	55,298	55,298	7,925	6,095	13,303	4,683	16,895	33,125	980
Heating equipment (more than one may apply)									
Heat pumps	11,846	11,846	11,846	1,347	2,961	556	3,225	5,597	Q
Furnaces	8,654	8,654	1,347	8,654	2,865	Q	1,053	4,165	Q
Individual space heaters	20,766	20,766	2,961	2,865	20,766	1,334	5,203	11,474	667
District heat	5,925	5,925	556	Q	1,334	5,925	Q	725	Q
Boilers	22,443	22,443	3,225	1,053	5,203	Q	22,443	8,817	Q
Packaged heating units	49,188	49,188	5,597	4,165	11,474	725	8,817	49,188	1,147
Other	1,574	1,574	Q	Q	667	Q	Q	1,147	1,574
Cooling equipment (more than one may apply)									
Residential-type central air conditioners	14,765	14,158	1,516	4,906	3,884	Q	2,073	8,975	356
Heat pumps	12,538	12,464	10,037	1,365	3,016	556	3,179	6,851	Q
Individual air conditioners	12,420	11,953	2,015	1,318	6,038	902	5,083	6,096	Q
District chilled water	4,608	4,561	325	Q	888	3,718	582	756	Q
Central chillers	17,041	16,685	2,333	579	4,128	1,948	11,683	7,259	Q
Packaged air conditioning units	45,153	43,820	5,282	4,004	11,336	2,056	11,510	35,944	1,228
Swamp coolers	1,918	1,879	379	Q	713	Q	486	1,416	Q
Other	328	328	Q	Q	Q	Q	Q	Q	N
Main equipment replaced since 1990 (more than one may apply)									
Heating	27,558	27,558	4,825	3,745	8,591	Q	8,332	17,733	461
Cooling	30,702	29,713	5,199	4,192	9,048	1,231	9,016	18,452	510
HVAC conservation features (more than one may apply)									
Economizer cycle	30,749	30,454	4,726	2,221	7,496	4,063	12,065	19,411	707
Regular HVAC maintenance	69,244	67,518	10,742	6,994	15,683	5,591	20,967	42,471	1,340
Building automation system (BAS)[2]	37,051	36,511	5,652	2,267	7,757	4,967	14,726	21,943	1,047

Table B39. Heating equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Heating equipment (more than one may apply)						
	All buildings	Buildings with space heating	Heat pumps	Furnaces	Indiv-idual space heaters	District heat	Boilers	Pack-aged heating units	Other
All buildings	87,093	80,078	11,846	8,654	20,766	5,925	22,443	49,188	1,574
Equipment usage reduced when building not in full use (more than one may apply)									
Heating	63,167	63,167	9,415	7,390	16,076	4,011	17,877	40,078	1,334
Cooling	62,516	60,904	9,350	7,194	15,084	4,029	17,152	39,291	1,306
Lighting	78,594	74,955	11,191	8,237	19,658	5,470	21,363	45,948	1,465

[1]These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

[2]In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)* .

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

N = No cases in reporting sample.

Notes: ● Because of rounding, data may not sum to totals. ● See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from http://www.eia.gov/consumption/commercial/data/2012/

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.

Release date: April 2015
Revised date: May 2016

Table B40. Cooling equipment, number of buildings, 2012

	Number of buildings (thousand)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	5,557	4,461	1,546	692	709	54	163	1,909	109	Q
Building floorspace (square feet)										
1,001 to 5,000	2,777	2,062	796	321	362	Q	Q	697	58	Q
5,001 to 10,000	1,229	1,004	403	168	136	Q	Q	418	Q	N
10,001 to 25,000	884	774	246	91	116	9	36	407	Q	Q
25,001 to 50,000	332	302	72	52	46	Q	29	181	Q	Q
50,001 to 100,000	199	187	21	41	29	10	36	124	7	Q
100,001 to 200,000	90	88	7	13	12	9	23	54	Q	Q
200,001 to 500,000	38	37	2	5	7	4	18	24	Q	Q
Over 500,000	8	8	Q	1	1	1	5	5	Q	Q
Principal building activity										
Education	389	361	68	69	45	25	42	165	Q	Q
Food sales	177	165	64	Q	Q	N	Q	76	Q	N
Food service	380	358	110	37	48	Q	Q	188	21	N
Health care	157	154	58	28	8	Q	16	72	Q	Q
Inpatient	10	10	Q	2	2	1	6	6	Q	Q
Outpatient	147	145	57	26	Q	Q	10	66	Q	Q
Lodging	158	145	34	36	71	Q	11	40	Q	Q
Mercantile	602	560	209	96	73	N	Q	301	14	N
Retail (other than mall)	438	396	133	60	61	N	Q	170	Q	N
Enclosed and strip malls	164	164	76	36	12	N	Q	131	Q	N
Office	1,012	995	358	175	124	10	43	396	Q	Q
Public assembly	352	295	116	42	29	5	15	127	Q	Q
Public order and safety	84	74	23	Q	Q	Q	4	32	Q	Q
Religious worship	412	375	164	57	61	Q	Q	146	Q	Q
Service	619	435	138	50	126	N	Q	140	Q	Q
Warehouse and storage	796	391	149	57	71	N	Q	158	Q	Q
Other	125	90	39	Q	Q	Q	6	43	Q	Q
Vacant	296	63	Q	Q	Q	Q	Q	26	Q	Q
Year constructed										
Before 1920	362	275	116	29	84	Q	6	75	Q	N
1920 to 1945	488	367	153	41	100	Q	12	127	Q	Q
1946 to 1959	599	477	145	76	109	Q	18	185	Q	Q
1960 to 1969	639	538	192	71	89	11	25	241	13	Q
1970 to 1979	684	563	203	67	86	9	21	258	16	Q
1980 to 1989	915	730	234	137	87	3	26	341	13	Q
1990 to 1999	845	663	235	124	78	10	22	271	15	Q
2000 to 2003	375	321	106	40	34	5	11	157	Q	Q
2004 to 2007	347	293	86	58	29	6	9	144	Q	Q
2008 to 2012	303	235	76	50	12	Q	15	110	Q	N

Table B40. Cooling equipment, number of buildings, 2012

	Number of buildings (thousand)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	5,557	4,461	1,546	692	709	54	163	1,909	109	Q
Census region and division										
Northeast	805	592	178	53	190	7	26	253	Q	Q
New England	302	187	53	16	67	Q	12	81	Q	Q
Middle Atlantic	504	405	124	38	123	Q	14	172	Q	Q
Midwest	1,237	970	480	65	147	2	37	362	Q	Q
East North Central	735	601	305	33	80	2	24	235	Q	Q
West North Central	502	370	175	32	68	Q	13	127	N	Q
South	2,247	1,891	633	409	257	35	70	786	Q	Q
South Atlantic	1,091	935	251	296	121	22	40	376	Q	Q
East South Central	370	335	112	54	54	Q	8	156	N	N
West South Central	786	621	270	59	81	6	22	254	Q	Q
West	1,267	1,007	255	165	114	9	29	508	89	Q
Mountain	338	259	73	31	23	1	12	125	36	Q
Pacific	929	748	182	134	91	8	18	383	53	Q
Climate region[1]										
Very cold/Cold	2,031	1,497	586	125	279	7	63	620	51	Q
Mixed-humid	1,743	1,482	507	337	243	18	48	568	Q	Q
Mixed-dry/Hot-dry	837	682	182	116	71	7	20	358	42	Q
Hot-humid	799	699	255	92	101	21	28	310	Q	Q
Marine	147	101	Q	Q	Q	Q	4	53	Q	Q
Number of floors										
One	3,836	2,954	1,027	465	394	17	48	1,301	89	Q
Two	1,158	994	370	162	163	13	40	419	13	Q
Three	374	338	120	35	105	8	27	115	Q	Q
Four to nine	177	163	29	29	44	15	39	69	Q	Q
Ten or more	13	12	Q	2	3	1	8	6	Q	Q
Number of workers (main shift)										
Fewer than 5	2,892	1,932	736	272	389	Q	23	644	48	Q
5 to 9	1,085	999	379	171	127	Q	16	418	26	Q
10 to 19	731	699	255	95	88	Q	17	353	Q	Q
20 to 49	513	498	136	96	60	9	28	288	8	Q
50 to 99	206	203	30	39	23	9	35	132	6	Q
100 to 249	93	93	10	13	16	6	27	53	Q	Q
250 or more	37	37	1	6	5	5	19	21	Q	Q

Table B40. Cooling equipment, number of buildings, 2012

	Number of buildings (thousand)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	5,557	4,461	1,546	692	709	54	163	1,909	109	Q
Weekly operating hours										
Fewer than 40	1,149	690	266	110	138	Q	8	231	Q	Q
40 to 48	1,346	1,168	444	175	185	12	34	424	26	Q
49 to 60	1,244	1,084	391	180	149	10	45	460	29	Q
61 to 84	764	669	227	113	88	9	21	340	27	Q
85 to 167	479	419	113	45	45	12	17	242	12	Q
Open continuously	575	431	105	69	104	11	37	213	Q	Q
Ownership and occupancy										
Nongovernment owned	4,781	3,817	1,398	567	600	17	89	1,646	96	Q
Owner occupied	2,466	2,046	767	323	342	14	52	790	58	Q
Leased to tenant(s)	1,745	1,421	507	183	203	2	24	692	36	Q
Owner occupied and leased	349	324	115	58	50	1	11	155	Q	Q
Unoccupied	221	26	Q	Q	Q	N	Q	Q	N	N
Government owned	776	644	148	125	109	37	74	263	14	Q
Federal	33	33	Q	Q	Q	Q	6	12	Q	Q
State	185	159	34	30	21	20	21	62	Q	Q
Local	558	452	102	93	82	16	47	190	Q	Q
Party responsible for operation and maintenance of energy systems										
Building owner	4,715	3,740	1,288	595	615	53	154	1,531	93	Q
Business owner or tenant	724	625	225	75	80	Q	6	338	Q	Q
Property management	54	44	Q	Q	Q	Q	2	23	Q	Q
Other	64	52	Q	Q	Q	Q	Q	18	N	Q
Provider of direct input on energy-related equipment purchases										
Building owner	4,876	3,865	1,342	617	618	54	155	1,604	97 Q	
Business owner or tenant	540	474	165	48	78	Q	5	249	Q	Q
Property management	35	32	Q	Q	Q	Q	Q	16	N	Q
Other	106	90	30	24	Q	Q	Q	41	Q	N

Table B40. Cooling equipment, number of buildings, 2012

	Number of buildings (thousand)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	5,557	4,461	1,546	692	709	54	163	1,909	109	Q
Campus or complex activity										
Not part of a campus or complex	3,683	3,111	1,158	424	490	Q	96	1,325	80	Q
Primary or secondary school	237	207	29	46	32	16	15	98	Q	N
College or university	84	77	Q	15	Q	24	13	21	Q	Q
Office complex	154	145	47	29	9	Q	5	63	Q	Q
Retail complex	258	214	82	39	24	N	Q	124	Q	N
Storage complex	314	58	Q	Q	21	N	N	18	Q	N
Religious campus or complex	197	168	57	33	23	Q	Q	73	Q	Q
Health care complex	52	50	14	9	10	Q	11	24	Q	Q
Lodging or resort complex	65	53	Q	Q	30	Q	2	10	N	N
Transportation complex	35	32	Q	Q	Q	Q	Q	7	N	Q
Government complex	104	75	Q	14	11	Q	9	36	Q	Q
Other	371	273	88	60	51	Q	5	111	Q	Q
Renovations in buildings constructed before 2008 (more than one may apply)										
Any type of renovation	2,094	1,854	640	279	317	25	77	867	44	1
Addition or annex	444	413	148	68	75	5	35	194	11	Q
Reduction in floorspace	71	60	28	10	12	Q	1	23	Q	N
Roof replacement	987	870	307	126	153	10	47	398	18	Q
Exterior wall replacement	194	175	57	25	34	Q	6	85	Q	N
Interior wall reconfiguration	889	816	267	127	127	15	36	429	20	Q
Window replacement	560	516	170	94	90	Q	24	238	15	Q
HVAC equipment upgrade	1,101	1,026	346	178	146	18	54	522	21	Q
Lighting upgrade	982	891	272	149	151	19	47	460	29	Q
Electrical upgrade	747	675	245	113	123	9	26	314	12	Q
Plumbing system upgrade	644	582	202	98	103	Q	20	290	10	Q
Insulation upgrade	382	347	124	66	58	Q	14	160	Q	Q
Fire, safety, or security upgrade	616	569	172	100	96	13	34	301	16	Q
Structural upgrade	152	137	41	28	24	Q	6	68	Q	Q
Other	39	32	Q	Q	Q	Q	Q	19	Q	N
No renovations	3,160	2,372	830	364	380	25	71	933	60	Q
Buildings constructed 2008 or later	303	235	76	50	12	Q	15	110	Q	N
Energy sources (more than one may apply)										
Electricity	5,234	4,461	1,546	692	709	54	163	1,909	109	Q
Natural gas	2,933	2,700	1,012	265	385	21	127	1,311	69	Q
Fuel oil	467	360	70	54	109	8	55	167	6	Q
District heat	48	44	Q	2	6	26	8	11	Q	Q
District chilled water	54	54	Q	Q	2	54	1	7	Q	Q
Propane	510	420	160	49	107	Q	10	153	21	Q
Other	172	126	47	22	26	Q	6	48	Q	Q

Table B40. Cooling equipment, number of buildings, 2012

	Number of buildings (thousand)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	5,557	4,461	1,546	692	709	54	163	1,909	109	Q
Cooling energy sources (more than one may apply)										
Electricity	4,413	4,413	1,546	692	709	13	162	1,903	109	Q
Natural gas	12	12	Q	Q	Q	Q	5	8	Q	Q
District chilled water	54	54	Q	Q	2	54	1	7	Q	Q
Energy end uses (more than one may apply)										
Buildings with space heating	4,722	4,272	1,476	685	643	51	158	1,841	99	Q
Buildings with cooling	4,461	4,461	1,546	692	709	54	163	1,909	109	Q
Buildings with water heating	4,423	4,097	1,439	637	619	51	159	1,787	102	3
Buildings with cooking	1,589	1,497	548	227	242	9	80	687	41	Q
Buildings with manufacturing	259	217	76	24	53	Q	3	103	Q	Q
Buildings with electricity generation	410	386	92	66	65	12	71	201	6	Q
Percent of floorspace cooled										
Not cooled	1,096	N	N	N	N	N	N	N	N	N
1 to 50	1,173	1,173	403	146	326	Q	8	394	36	Q
51 to 99	897	897	312	147	123	18	58	435	20	Q
100	2,391	2,391	831	399	260	36	97	1,081	53	Q
Heating equipment (more than one may apply)										
Heat pumps	628	621	86	549	46	Q	13	118	8	Q
Furnaces	755	728	530	60	92	Q	10	194	Q	Q
Individual space heaters	1,247	1,007	325	124	352	7	32	338	55	Q
District heat	48	44	Q	2	6	26	8	11	Q	Q
Boilers	544	483	119	55	133	9	106	203	12	Q
Packaged heating units	2,802	2,633	870	249	258	16	69	1,589	57	Q
Other	62	55	24	Q	Q	Q	Q	23	Q	N
Cooling equipment (more than one may apply)										
Residential-type central air conditioners	1,546	1,546	1,546	57	120	Q	6	166	18	Q
Heat pumps	692	692	57	692	52	Q	13	113	13	Q
Individual air conditioners	709	709	120	52	709	2	18	135	12	Q
District chilled water	54	54	Q	Q	2	54	1	7	Q	Q
Central chillers	163	163	6	13	18	1	163	47	4	Q
Packaged air conditioning units	1,909	1,909	166	113	135	7	47	1,909	31	Q
Swamp coolers	109	109	18	13	12	Q	4	31	109	N
Other	Q	Q	Q	Q	Q	Q	Q	Q	N	Q

Table B40. Cooling equipment, number of buildings, 2012

	Number of buildings (thousand)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	5,557	4,461	1,546	692	709	54	163	1,909	109	Q
Main equipment replaced since 1990 (more than one may apply)										
Heating	1,874	1,714	587	296	295	Q	50	743	40	Q
Cooling	1,971	1,971	707	310	404	Q	62	793	48	Q
HVAC conservation features (more than one may apply)										
Economizer cycle	97	96	13	22	13	7	26	55	1	Q
Regular HVAC maintenance	244	242	37	45	31	8	38	150	5	Q
Building automation system (BAS)[2]	238	230	49	48	41	12	43	120	6	Q
Separate computer areas (more than one may apply)										
Data center or server farm	601	601	85	104	59	23	75	420	20	1
Computer-based training room	3,178	3,023	982	517	316	47	150	1,498	69	3
Student or public computer center	781	757	147	116	56	46	107	450	12	1
Equipment usage reduced when building not in full use (more than one may apply)										
Heating	3,699	3,403	1,214	517	486	42	128	1,488	80	Q
Cooling	3,517	3,517	1,256	519	518	45	128	1,530	83	Q
Lighting	4,757	4,196	1,476	654	661	50	158	1,781	107	Q

[1]These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

[2]In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)* .

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

N = No cases in reporting sample.

Notes: ● Because of rounding, data may not sum to totals. ● See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from http://www.eia.gov/consumption/commercial/data/2012/

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.

Release date: April 2015
Revised date: May 2016

Table B41. Cooling equipment, floorspace, 2012

	Total floorspace (million square feet)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	87,093	79,294	14,765	12,538	12,420	4,608	17,041	45,153	1,918	328
Building floorspace (square feet)										
1,001 to 5,000	8,041	6,124	2,350	983	1,027	Q	Q	2,154	155	Q
5,001 to 10,000	8,900	7,304	2,968	1,193	972	Q	Q	3,082	Q	N
10,001 to 25,000	14,105	12,357	3,883	1,457	1,855	145	631	6,557	Q	Q
25,001 to 50,000	11,917	10,813	2,526	1,866	1,606	Q	1,095	6,466	Q	Q
50,001 to 100,000	13,918	13,069	1,395	2,825	1,956	567	2,724	8,705	441	Q
100,001 to 200,000	12,415	12,152	895	1,718	1,652	1,273	3,211	7,447	Q	Q
200,001 to 500,000	10,724	10,518	610	1,422	2,091	1,064	5,127	6,702	Q	Q
Over 500,000	7,074	6,958	Q	1,073	1,262	1,306	4,145	4,039	Q	Q
Principal building activity										
Education	12,239	11,811	912	2,304	2,074	1,292	4,127	5,934	Q	Q
Food sales	1,252	1,190	357	Q	Q	N	Q	748	Q	N
Food service	1,819	1,712	471	189	204	Q	Q	954	85	N
Health care	4,155	4,148	415	738	615	523	2,455	2,374	Q	Q
Inpatient	2,374	2,374	Q	515	537	477	1,883	1,385	Q	Q
Outpatient	1,781	1,774	349	223	Q	Q	572	989	Q	Q
Lodging	5,826	5,700	749	1,124	2,349	Q	1,658	2,379	Q	Q
Mercantile	11,330	11,121	2,510	1,716	763	N	419	9,094	415	N
Retail (other than mall)	5,439	5,230	921	506	432	N	Q	3,606	Q	N
Enclosed and strip malls	5,890	5,890	1,589	1,210	331	N	Q	5,487	Q	N
Office	15,952	15,882	2,270	2,913	2,184	1,096	5,050	7,993	Q	Q
Public assembly	5,559	5,235	948	661	628	880	1,038	2,672	Q	Q
Public order and safety	1,440	1,384	248	Q	Q	Q	416	804	Q	Q
Religious worship	4,557	4,271	1,632	714	712	Q	Q	2,229	Q	Q
Service	4,630	3,773	1,143	414	701	N	Q	1,854	Q	Q
Warehouse and storage	13,077	10,120	2,567	1,216	1,566	N	465	6,472	Q	Q
Other	2,002	1,820	382	Q	Q	Q	479	969	Q	Q
Vacant	3,256	1,125	Q	Q	Q	Q	Q	678	Q	Q
Year constructed										
Before 1920	3,983	3,087	755	333	1,069	Q	404	1,430	Q	N
1920 to 1945	6,025	5,215	1,311	775	1,424	Q	1,370	2,711	Q	Q
1946 to 1959	7,381	6,679	996	1,097	1,485	203	1,755	3,674	Q	Q
1960 to 1969	10,362	9,634	2,075	1,300	1,740	923	2,052	5,552	299	Q
1970 to 1979	10,846	10,031	2,044	1,330	1,649	811	2,371	5,445	207	Q
1980 to 1989	15,230	14,011	2,503	2,556	1,768	310	3,210	8,585	267	Q
1990 to 1999	13,803	12,402	2,386	2,214	1,425	664	2,276	7,222	344	Q
2000 to 2003	7,215	6,939	1,102	800	614	Q	1,311	4,000	Q	Q
2004 to 2007	6,524	6,071	805	1,195	744	418	1,122	3,644	Q	Q
2008 to 2012	5,723	5,225	786	939	503	Q	1,169	2,890	Q	N

Table B41. Cooling equipment, floorspace, 2012

	Total floorspace (million square feet)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	87,093	79,294	14,765	12,538	12,420	4,608	17,041	45,153	1,918	328
Census region and division										
Northeast	15,534	13,949	1,695	1,490	3,845	794	3,489	8,697	Q	Q
New England	4,302	3,482	451	388	1,035	Q	783	2,062	Q	Q
Middle Atlantic	11,232	10,467	1,244	1,103	2,810	656	2,706	6,635	Q	Q
Midwest	18,919	17,144	4,347	1,024	2,585	585	4,475	9,816	Q	Q
East North Central	12,742	11,675	2,854	604	1,806	420	3,484	6,839	Q	Q
West North Central	6,178	5,469	1,493	421	779	Q	991	2,977	N	Q
South	34,279	31,734	5,895	7,108	4,263	2,479	6,460	17,185	469	Q
South Atlantic	17,981	17,094	2,574	4,925	2,484	1,202	3,884	9,119	Q	Q
East South Central	4,904	4,710	891	839	808	Q	831	2,686	N	N
West South Central	11,394	9,931	2,429	1,344	971	773	1,746	5,379	Q	Q
West	18,360	16,467	2,828	2,916	1,727	749	2,617	9,455	1,340	Q
Mountain	4,981	4,489	668	672	565	Q	920	2,314	722	Q
Pacific	13,379	11,978	2,160	2,244	1,162	329	1,697	7,141	617	Q
Climate region[1]										
Very cold/Cold	31,898	28,228	5,468	2,457	5,046	1,227	6,757	16,452	680	Q
Mixed-humid	27,873	26,365	4,620	6,173	4,683	2,027	5,913	14,627	Q	Q
Mixed-dry/Hot-dry	12,037	10,887	2,250	1,876	1,025	Q	1,348	6,306	710	Q
Hot-humid	12,831	11,624	2,319	1,451	1,344	752	2,474	6,449	Q	Q
Marine	2,454	2,190	Q	581	322	Q	549	1,318	Q	Q
Number of floors										
One	39,809	34,156	8,638	5,319	3,436	219	2,072	21,523	1,161	Q
Two	20,206	19,012	4,035	3,056	3,034	578	3,075	11,281	357	Q
Three	8,140	7,734	1,185	1,155	1,960	404	2,116	3,795	Q	Q
Four to nine	13,535	13,036	816	2,029	2,851	2,523	5,873	6,087	Q	Q
Ten or more	5,404	5,356	Q	979	1,138	883	3,905	2,466	Q	Q
Number of workers (main shift)										
Fewer than 5	17,751	11,595	3,835	1,498	1,963	Q	531	4,823	181	Q
5 to 9	8,973	8,238	2,699	1,127	1,204	Q	334	3,980	196	Q
10 to 19	9,623	9,190	2,854	1,442	1,348	Q	475	5,020	Q	Q
20 to 49	14,514	14,219	2,827	2,657	2,253	505	1,765	9,001	312	Q
50 to 99	13,476	13,323	1,445	2,538	1,630	683	3,087	9,135	461	Q
100 to 249	10,941	10,913	886	1,358	1,868	982	3,736	6,713	Q	Q
250 or more	11,815	11,815	218	1,918	2,153	1,986	7,112	6,481	Q	Q

Table B41. Cooling equipment, floorspace, 2012

	Total floorspace (million square feet)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	87,093	79,294	14,765	12,538	12,420	4,608	17,041	45,153	1,918	328
Weekly operating hours										
Fewer than 40	8,220	5,083	1,601	590	947	Q	358	2,233	Q	Q
40 to 48	15,828	14,512	3,289	2,362	1,994	521	2,421	7,330	281	Q
49 to 60	20,529	19,297	3,857	3,546	2,510	805	4,040	10,475	489	Q
61 to 84	15,867	15,170	2,885	2,672	1,671	524	2,560	9,911	403	Q
85 to 167	9,395	8,864	1,300	793	1,140	606	1,764	6,117	364	Q
Open continuously	17,253	16,368	1,832	2,574	4,158	2,005	5,897	9,087	325	Q
Ownership and occupancy										
Nongovernment owned	67,550	60,960	12,846	9,142	9,115	2,104	10,175	36,119	1,373	Q
Owner occupied	30,637	28,174	6,442	4,113	4,591	1,478	4,184	15,037	643	Q
Leased to tenant(s)	26,115	23,907	4,937	3,345	2,856	297	3,678	15,687	576	Q
Owner occupied and leased	8,873	8,602	1,431	1,673	1,657	329	2,278	5,186	Q	Q
Unoccupied	1,925	278	Q	Q	Q	N	Q	Q	N	N
Government owned	19,543	18,334	1,919	3,396	3,305	2,504	6,866	9,034	545	Q
Federal	1,573	1,573	Q	Q	407	Q	932	682	Q	Q
State	5,539	5,252	511	636	761	1,448	1,798	2,246	Q	Q
Local	12,431	11,508	1,250	2,582	2,137	612	4,135	6,106	Q	Q
Party responsible for operation and maintenance of energy systems										
Building owner	73,702	66,684	11,848	10,780	10,852	4,482	15,919	36,215	1,665	288
Business owner or tenant	11,309	10,677	2,562	1,414	1,156	Q	628	7,879	Q	Q
Property management	1,250	1,172	Q	Q	Q	Q	427	651	Q	Q
Other	832	761	Q	Q	Q	Q	Q	407	N	Q
Provider of direct input on energy-related equipment purchases										
Building owner	76,271	69,045	12,623	11,056	11,040	4,441	15,966	37,841	1,743	303
Business owner or tenant	8,256	7,825	1,698	1,026	1,067	Q	528	5,763	Q	Q
Property management	880	840	Q	Q	Q	Q	Q	566	N	Q
Other	1,686	1,583	363	361	Q	Q	Q	982	Q	N

Table B41. Cooling equipment, floorspace, 2012

	Total floorspace (million square feet)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	87,093	79,294	14,765	12,538	12,420	4,608	17,041	45,153	1,918	328
Campus or complex activity										
Not part of a campus or complex	52,275	48,314	10,348	6,993	7,505	Q	9,588	28,415	1,188	Q
Primary or secondary school	4,616	4,381	411	1,077	988	187	1,204	2,533	Q	N
College or university	4,068	3,924	Q	333	Q	2,162	1,057	844	Q	Q
Office complex	3,456	3,361	288	800	342	Q	1,013	1,816	Q	Q
Retail complex	5,159	4,831	1,213	940	283	N	Q	3,998	Q	N
Storage complex	3,212	1,244	Q	Q	333	N	N	715	Q	N
Religious campus or complex	1,932	1,722	498	338	248	Q	Q	938	Q	Q
Health care complex	3,362	3,316	246	571	640	730	1,987	1,578	Q	Q
Lodging or resort complex	1,295	1,258	Q	Q	533	Q	361	341	N	N
Transportation complex	554	481	Q	Q	Q	Q	Q	213	N	Q
Government complex	2,107	1,953	Q	272	568	Q	748	1,063	Q	Q
Other	5,057	4,509	1,075	823	605	Q	586	2,699	Q	Q
Renovations in buildings constructed before 2008 (more than one may apply)										
Any type of renovation	42,216	40,191	6,835	6,446	7,346	2,626	10,705	24,655	929	261
Addition or annex	13,022	12,778	1,841	2,050	2,877	863	4,542	8,301	307	Q
Reduction in floorspace	1,753	1,701	349	335	420	Q	465	973	Q	N
Roof replacement	20,917	20,036	2,908	3,285	4,057	1,276	6,553	12,529	272	Q
Exterior wall replacement	4,230	4,119	699	675	1,057	Q	1,107	2,855	Q	N
Interior wall reconfiguration	21,340	20,820	3,124	3,355	4,020	1,798	6,349	13,163	622	Q
Window replacement	12,265	11,724	1,867	2,049	2,600	701	3,789	7,060	289	Q
HVAC equipment upgrade	26,779	26,091	4,185	4,569	4,840	1,907	8,124	16,638	652	Q
Lighting upgrade	25,503	24,754	3,602	4,161	4,695	2,002	7,670	15,750	672	Q
Electrical upgrade	16,160	15,609	2,917	2,896	3,337	1,335	5,048	9,705	530	Q
Plumbing system upgrade	13,828	13,453	2,391	2,454	2,870	1,029	4,254	8,468	402	Q
Insulation upgrade	7,607	7,262	1,477	1,486	1,500	710	2,117	4,318	Q	Q
Fire, safety, or security upgrade	17,196	16,710	2,318	3,277	3,656	1,343	6,233	10,322	572	Q
Structural upgrade	3,913	3,794	561	777	740	Q	1,156	2,231	Q	Q
Other	848	819	Q	Q	Q	Q	Q	512	Q	N
No renovations	39,154	33,877	7,144	5,152	4,571	1,802	5,166	17,608	896	Q
Buildings constructed 2008 or later	5,723	5,225	786	939	503	Q	1,169	2,890	Q	N
Energy sources (more than one may apply)										
Electricity	84,869	79,294	14,765	12,538	12,420	4,608	17,041	45,153	1,918	328
Natural gas	58,725	56,899	10,504	8,017	9,137	2,431	13,745	34,917	1,536	290
Fuel oil	20,200	19,309	1,335	2,873	4,046	2,134	9,596	11,023	519	Q
District heat	5,964	5,903	Q	575	902	3,730	1,958	2,072	Q	Q
District chilled water	4,608	4,608	Q	268	636	4,608	393	833	Q	Q
Propane	7,706	7,061	1,522	875	1,417	Q	1,122	4,277	316	Q
Other	3,826	3,573	550	540	623	Q	989	2,224	Q	Q

Table B41. Cooling equipment, floorspace, 2012

	Total floorspace (million square feet)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	87,093	79,294	14,765	12,538	12,420	4,608	17,041	45,153	1,918	328
Cooling energy sources (more than one may apply)										
Electricity	76,034	76,034	14,765	12,538	12,420	1,586	16,872	45,047	1,918	328
Natural gas	732	732	Q	Q	174	Q	629	389	Q	Q
District chilled water	4,608	4,608	Q	268	636	4,608	393	833	Q	Q
Energy end uses (more than one may apply)										
Buildings with space heating	80,078	76,834	14,158	12,464	11,953	4,561	16,685	43,820	1,879	328
Buildings with cooling	79,294	79,294	14,765	12,538	12,420	4,608	17,041	45,153	1,918	328
Buildings with water heating	79,015	76,414	14,089	12,214	11,960	4,511	16,843	43,713	1,878	319
Buildings with cooking	38,546	37,687	6,055	6,821	7,171	2,084	11,888	22,792	973	Q
Buildings with manufacturing	5,078	4,682	1,038	518	1,015	Q	488	2,998	Q	Q
Buildings with electricity generation	25,642	25,350	1,920	3,949	4,350	2,731	11,601	14,869	603	Q
Percent of floorspace cooled										
Not cooled	7,799	N	N	N	N	N	N	N	N	N
1 to 50	18,891	18,891	5,109	2,214	4,303	Q	918	10,569	646	Q
51 to 99	22,728	22,728	3,376	3,930	3,662	1,953	7,090	13,777	554	Q
100	37,676	37,676	6,280	6,393	4,455	2,569	9,033	20,807	718	Q
Heating equipment (more than one may apply)										
Heat pumps	11,846	11,772	1,516	10,037	2,015	325	2,333	5,282	379	Q
Furnaces	8,654	8,514	4,906	1,365	1,318	Q	579	4,004	Q	Q
Individual space heaters	20,766	19,159	3,884	3,016	6,038	888	4,128	11,336	713	Q
District heat	5,925	5,864	Q	556	902	3,718	1,948	2,056	Q	Q
Boilers	22,443	21,579	2,073	3,179	5,083	582	11,683	11,510	486	Q
Packaged heating units	49,188	48,053	8,975	6,851	6,096	756	7,259	35,944	1,416	Q
Other	1,574	1,534	356	Q	Q	Q	Q	1,228	Q	N
Cooling equipment (more than one may apply)										
Residential-type central air conditioners	14,765	14,765	14,765	1,133	1,544	Q	457	3,800	299	Q
Heat pumps	12,538	12,538	1,133	12,538	1,915	268	2,095	5,460	477	Q
Individual air conditioners	12,420	12,420	1,544	1,915	12,420	636	2,757	6,177	259	Q
District chilled water	4,608	4,608	Q	268	636	4,608	393	833	Q	Q
Central chillers	17,041	17,041	457	2,095	2,757	393	17,041	6,959	420	Q
Packaged air conditioning units	45,153	45,153	3,800	5,460	6,177	833	6,959	45,153	980	Q
Swamp coolers	1,918	1,918	299	477	259	Q	420	980	1,918	N
Other	328	328	Q	Q	Q	Q	Q	Q	N	328

Table B41. Cooling equipment, floorspace, 2012

	Total floorspace (million square feet)									
			Cooling equipment (more than one may apply)							
	All buildings	Buildings with cooling	Residential-type central air conditioners	Heat pumps	Individual air conditioners	District chilled water	Central chillers	Packaged air conditioning units	Swamp coolers	Other
All buildings	87,093	79,294	14,765	12,538	12,420	4,608	17,041	45,153	1,918	328
Main equipment replaced since 1990 (more than one may apply)										
Heating	27,558	26,409	5,304	5,000	5,084	Q	4,819	16,229	525	Q
Cooling	30,702	30,702	6,332	5,424	6,522	Q	6,679	18,251	593	Q
HVAC conservation features (more than one may apply)										
Economizer cycle	11,105	11,093	453	2,215	2,279	1,682	5,842	6,206	204	Q
Regular HVAC maintenance	17,723	17,589	1,291	3,103	3,079	1,792	7,127	10,728	522	Q
Building automation system (BAS)[2]	14,341	14,090	1,483	2,607	2,774	1,793	5,379	7,523	371	Q
Separate computer areas (more than one may apply)										
Data center or server farm	30,749	30,749	1,983	5,147	4,218	2,929	11,210	20,743	730	265
Computer-based training room	69,244	67,839	11,049	11,344	9,663	4,276	16,544	40,519	1,645	319
Student or public computer center	37,051	36,692	2,808	5,759	4,350	3,944	14,272	22,155	913	288
Equipment usage reduced when building not in full use (more than one may apply)										
Heating	63,167	61,087	11,286	10,063	8,745	3,180	13,143	35,824	1,601	288
Cooling	62,516	62,516	11,810	10,190	8,973	3,070	13,606	36,602	1,515	275
Lighting	78,594	74,511	14,171	11,946	11,558	4,303	16,238	41,967	1,914	302

[1]These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

[2]In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)* .

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

N = No cases in reporting sample.

Notes: ● Because of rounding, data may not sum to totals. ● See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from http://www.eia.gov/consumption/commercial/data/2012/

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.

Release date: April 2015
Revised date: May 2016

Table B42. Water-heating equipment, number of buildings and floorspace, 2012

	Number of buildings (thousand)					Total floorspace (million square feet)				
			Type of water-heating equipment					Type of water-heating equipment		
	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems
All buildings	5,557	4,423	3,348	690	385	87,093	79,015	47,534	12,688	18,793
Building floorspace (square feet)										
1,001 to 5,000	2,777	2,032	1,653	322	57	8,041	6,102	4,906	1,011	185
5,001 to 10,000	1,229	992	789	120	82	8,900	7,236	5,731	890	615
10,001 to 25,000	884	775	538	143	93	14,105	12,401	8,549	2,318	1,534
25,001 to 50,000	332	307	198	57	51	11,917	11,007	7,125	1,983	1,899
50,001 to 100,000	199	186	103	28	55	13,918	13,063	7,181	1,904	3,978
100,001 to 200,000	90	86	45	13	29	12,415	11,903	6,120	1,846	3,937
200,001 to 500,000	38	36	17	5	14	10,724	10,351	4,924	1,516	3,911
Over 500,000	8	8	4	1	3	7,074	6,951	2,998	1,220	2,734
Principal building activity										
Education	389	332	244	51	38	12,239	11,905	7,580	1,269	3,057
Food sales	177	177	155	Q	Q	1,252	1,252	883	Q	Q
Food service	380	379	307	33	39	1,819	1,817	1,449	130	237
Health care	157	156	124	22	10	4,155	4,153	2,630	449	1,074
Inpatient	10	10	6	Q	2	2,374	2,374	1,419	Q	860
Outpatient	147	146	118	21	Q	1,781	1,779	1,211	354	Q
Lodging	158	158	132	7	19	5,826	5,821	4,418	369	1,034
Mercantile	602	531	342	90	99	11,330	10,960	4,705	1,492	4,763
Retail (other than mall)	438	367	270	80	17	5,439	5,070	2,932	1,013	1,125
Enclosed and strip malls	164	164	72	10	82	5,890	5,890	1,773	479	3,638
Office	1,012	943	713	160	71	15,952	15,663	8,724	2,934	4,006
Public assembly	352	317	248	41	28	5,559	5,318	3,389	514	1,415
Public order and safety	84	80	72	Q	Q	1,440	1,341	1,139	Q	Q
Religious worship	412	383	290	70	23	4,557	4,337	2,850	711	776
Service	619	442	347	80	Q	4,630	3,763	2,695	669	Q
Warehouse and storage	796	370	252	93	26	13,077	10,041	5,204	3,449	1,388
Other	125	98	81	Q	Q	2,002	1,614	1,170	Q	Q
Vacant	296	56	44	Q	Q	3,256	1,031	700	Q	Q
Year constructed										
Before 1920	362	286	232	39	15	3,983	3,403	2,287	526	590
1920 to 1945	488	383	288	69	26	6,025	5,299	2,918	743	1,638
1946 to 1959	599	460	356	78	26	7,381	6,410	4,305	943	1,162
1960 to 1969	639	540	427	60	53	10,362	9,699	6,252	1,005	2,442
1970 to 1979	684	577	435	87	55	10,846	10,158	6,298	1,773	2,087
1980 to 1989	915	727	527	139	61	15,230	13,831	7,338	2,888	3,605
1990 to 1999	845	631	498	86	48	13,803	12,209	7,417	1,724	3,069
2000 to 2003	375	312	235	45	32	7,215	6,889	4,098	1,145	1,646
2004 to 2007	347	275	190	47	38	6,524	5,955	3,445	1,007	1,503
2008 to 2012	303	231	161	39	30	5,723	5,162	3,176	933	1,053

Table B42. Water-heating equipment, number of buildings and floorspace, 2012

	Number of buildings (thousand)					Total floorspace (million square feet)				
			Type of water-heating equipment					Type of water-heating equipment		
	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems
All buildings	5,557	4,423	3,348	690	385	87,093	79,015	47,534	12,688	18,793
Census region and division										
Northeast	805	671	493	123	56	15,534	14,633	9,128	2,383	3,122
New England	302	235	166	40	30	4,302	3,915	2,487	586	843
Middle Atlantic	504	436	327	83	26	11,232	10,718	6,641	1,797	2,279
Midwest	1,237	1,014	806	133	76	18,919	17,592	11,316	2,335	3,942
East North Central	735	629	490	90	49	12,742	12,082	7,606	1,671	2,804
West North Central	502	385	316	43	27	6,178	5,510	3,710	663	1,137
South	2,247	1,740	1,322	264	154	34,279	30,261	17,460	4,938	7,863
South Atlantic	1,091	856	617	160	79	17,981	16,144	8,889	3,030	4,226
East South Central	370	325	268	28	29	4,904	4,598	2,745	437	1,416
West South Central	786	560	437	76	46	11,394	9,519	5,826	1,471	2,222
West	1,267	997	728	170	99	18,360	16,529	9,631	3,032	3,866
Mountain	338	260	195	36	29	4,981	4,440	2,573	699	1,168
Pacific	929	737	533	135	69	13,379	12,089	7,058	2,333	2,698
Climate region[1]										
Very cold/Cold	2,031	1,639	1,261	242	136	31,898	29,567	18,894	4,184	6,489
Mixed-humid	1,743	1,445	1,120	201	124	27,873	25,772	15,231	3,619	6,922
Mixed-dry/Hot-dry	837	635	457	124	54	12,037	10,585	6,259	2,221	2,105
Hot-humid	799	590	431	104	55	12,831	10,837	5,983	2,298	2,556
Marine	147	113	78	Q	16	2,454	2,255	1,168	366	721
Number of floors										
One	3,836	2,862	2,179	451	231	39,809	33,591	20,177	6,094	7,321
Two	1,158	1,039	786	156	97	20,206	19,088	11,762	3,133	4,194
Three	374	344	259	58	26	8,140	7,932	5,148	1,181	1,602
Four to nine	177	166	118	23	26	13,535	13,141	7,998	1,646	3,497
Ten or more	13	12	6	2	5	5,404	5,264	2,450	635	2,179
Number of workers (main shift)										
Fewer than 5	2,892	1,917	1,547	292	78	17,751	11,783	8,984	1,713	1,086
5 to 9	1,085	977	777	140	61	8,973	8,205	6,262	1,188	755
10 to 19	731	700	515	118	66	9,623	9,137	6,320	1,690	1,126
20 to 49	513	495	319	78	98	14,514	14,097	7,957	2,282	3,859
50 to 99	206	203	122	36	46	13,476	13,171	7,105	2,192	3,873
100 to 249	93	93	51	20	23	10,941	10,912	5,614	1,893	3,404
250 or more	37	37	17	6	14	11,815	11,711	5,292	1,730	4,689

Table B42. Water-heating equipment, number of buildings and floorspace, 2012

	Number of buildings (thousand)					Total floorspace (million square feet)				
			Type of water-heating equipment					Type of water-heating equipment		
	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems
All buildings	5,557	4,423	3,348	690	385	87,093	79,015	47,534	12,688	18,793
Weekly operating hours										
Fewer than 40	1,149	703	575	97	31	8,220	5,137	3,777	659	701
40 to 48	1,346	1,107	843	193	71	15,828	14,388	9,155	2,631	2,602
49 to 60	1,244	1,063	789	184	89	20,529	18,878	11,623	3,487	3,768
61 to 84	764	676	467	111	98	15,867	15,304	7,601	2,621	5,082
85 to 167	479	428	315	67	46	9,395	8,937	5,247	1,470	2,220
Open continuously	575	447	359	38	49	17,253	16,371	10,131	1,820	4,420
Ownership and occupancy										
Nongovernment owned	4,781	3,791	2,851	617	323	67,550	60,645	35,837	11,091	13,717
Owner occupied	2,466	2,048	1,634	289	125	30,637	27,869	19,154	4,090	4,626
Leased to tenant(s)	1,745	1,401	1,001	251	149	26,115	23,900	12,749	4,804	6,347
Owner occupied and leased	349	316	195	75	46	8,873	8,544	3,698	2,181	2,665
Unoccupied	221	26	21	Q	Q	1,925	332	237	Q	Q
Government owned	776	632	497	72	62	19,543	18,370	11,697	1,596	5,076
Federal	33	33	29	Q	3	1,573	1,565	837	Q	626
State	185	146	106	22	19	5,539	5,270	3,188	746	1,336
Local	558	452	362	50	40	12,431	11,535	7,672	749	3,115
Party responsible for operation and maintenance of energy systems										
Building owner	4,715	3,706	2,841	580	285	73,702	66,462	41,135	10,474	14,852
Business owner or tenant	724	617	432	98	87	11,309	10,617	5,269	1,896	3,452
Property management	54	42	29	Q	7	1,250	1,177	600	Q	400
Other	64	57	46	Q	Q	832	759	531	Q	Q
Provider of direct input on energy-related equipment purchases										
Building owner	4,876	3,830	2,933	591	306	76,271	68,848	42,370	10,971	15,507
Business owner or tenant	540	466	317	85	64	8,256	7,779	3,962	1,345	2,471
Property management	35	29	23	Q	Q	880	784	378	Q	Q
Other	106	98	75	Q	12	1,686	1,605	824	Q	549

Table B42. Water-heating equipment, number of buildings and floorspace, 2012

	Number of buildings (thousand)					Total floorspace (million square feet)				
			Type of water-heating equipment					Type of water-heating equipment		
	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems
All buildings	5,557	4,423	3,348	690	385	87,093	79,015	47,534	12,688	18,793
Campus or complex activity										
Not part of a campus or complex	3,683	3,084	2,369	467	248	52,275	47,942	29,176	8,061	10,705
Primary or secondary school	237	165	115	32	19	4,616	4,214	2,522	496	1,196
College or university	84	79	63	8	8	4,068	4,010	2,951	472	587
Office complex	154	141	93	33	15	3,456	3,395	1,606	691	1,097
Retail complex	258	218	139	26	53	5,159	4,921	2,014	482	2,425
Storage complex	314	52	29	22	Q	3,212	1,284	643	545	Q
Religious campus or complex	197	181	136	36	Q	1,932	1,810	1,159	344	Q
Health care complex	52	50	42	Q	7	3,362	3,314	2,278	Q	912
Lodging or resort complex	65	61	53	Q	Q	1,295	1,275	1,048	Q	Q
Transportation complex	35	32	27	Q	(*)	554	494	193	Q	200
Government complex	104	81	71	Q	2	2,107	1,886	1,359	Q	415
Other	371	278	209	49	20	5,057	4,470	2,584	1,228	658
Renovations in buildings constructed before 2008 (more than one may apply)										
Any type of renovation	2,094	1,886	1,393	297	196	42,216	40,289	22,231	6,390	11,668
Addition or annex	444	424	296	74	54	13,022	12,835	7,022	1,819	3,994
Reduction in floorspace	71	62	52	Q	5	1,753	1,715	935	Q	485
Roof replacement	987	881	654	133	94	20,917	20,189	10,907	3,186	6,095
Exterior wall replacement	194	174	130	27	17	4,230	4,144	2,261	788	1,096
Interior wall reconfiguration	889	813	563	136	114	21,340	20,777	10,449	3,418	6,911
Window replacement	560	526	352	107	66	12,265	11,984	6,237	1,983	3,765
HVAC equipment upgrade	1,101	1,019	722	173	123	26,779	26,061	13,578	4,230	8,253
Lighting upgrade	982	920	660	150	110	25,503	24,671	12,695	3,900	8,076
Electrical upgrade	747	681	487	109	85	16,160	15,675	8,123	2,398	5,154
Plumbing system upgrade	644	601	422	98	81	13,828	13,544	7,147	1,944	4,452
Insulation upgrade	382	353	248	61	44	7,607	7,331	3,785	1,176	2,370
Fire, safety, or security upgrade	616	585	407	101	77	17,196	16,864	8,874	2,709	5,281
Structural upgrade	152	144	108	20	16	3,913	3,853	2,137	518	1,198
Other	39	34	25	Q	Q	848	829	321	Q	Q
No renovations	3,160	2,306	1,794	354	158	39,154	33,564	22,127	5,365	6,073
Buildings constructed 2008 or later	303	231	161	39	30	5,723	5,162	3,176	933	1,053
Energy sources (more than one may apply)										
Electricity	5,234	4,423	3,348	690	385	84,869	79,015	47,534	12,688	18,793
Natural gas	2,933	2,742	2,073	388	282	58,725	57,019	34,005	8,211	14,803
Fuel oil	467	411	314	52	45	20,200	19,708	10,979	2,510	6,219
District heat	48	45	30	6	8	5,964	5,822	3,596	501	1,725
District chilled water	54	51	24	19	7	4,608	4,511	2,907	450	1,154
Propane	510	466	357	72	38	7,706	7,383	4,491	1,127	1,765
Other	172	141	104	23	14	3,826	3,679	2,260	475	944

Table B42. Water-heating equipment, number of buildings and floorspace, 2012

	Number of buildings (thousand)					Total floorspace (million square feet)				
			Type of water-heating equipment					Type of water-heating equipment		
	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems	All buildings	Buildings with water heating	Central-ized system	Distrib-uted system	Both central-ized and distrib-uted systems
All buildings	5,557	4,423	3,348	690	385	87,093	79,015	47,534	12,688	18,793
Water-heating energy sources (more than one may apply)										
Electricity	2,658	2,658	1,901	508	250	42,755	42,755	21,435	9,362	11,957
Natural gas	1,758	1,758	1,367	182	209	39,523	39,523	24,806	4,088	10,629
Fuel oil	77	77	63	Q	7	1,911	1,911	1,318	Q	467
District heat	25	25	19	3	4	4,551	4,551	3,002	325	1,224
Propane	142	142	106	Q	14	1,575	1,575	1,006	Q	348
Energy end uses (more than one may apply)										
Buildings with space heating	4,722	4,237	3,229	634	374	80,078	76,584	46,147	11,914	18,523
Buildings with cooling	4,461	4,097	3,093	631	374	79,294	76,414	45,554	12,198	18,662
Buildings with water heating	4,423	4,423	3,348	690	385	79,015	79,015	47,534	12,688	18,793
Buildings with cooking	1,589	1,573	1,190	176	208	38,546	38,389	21,608	4,102	12,679
Buildings with manufacturing	259	228	150	55	22	5,078	4,570	2,431	1,148	990
Buildings with electricity generation	410	395	292	34	69	25,642	25,280	14,045	2,858	8,378
Food preparation or serving areas in non-food service buildings (more than one may apply)										
Snack bar or concession stand	153	150	95	17	38	9,884	9,864	4,357	899	4,608
Fast food or small restaurant	173	173	97	13	63	9,787	9,778	3,500	1,131	5,147
Cafeteria or large restaurant	130	130	81	12	38	15,222	15,219	8,204	1,429	5,587
Commercial kitchen/ food preparation area	282	282	181	41	60	16,150	16,150	8,757	1,491	5,901
Small kitchen area	736	723	577	82	64	14,054	13,926	8,428	1,284	4,213

[1]These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

[2]In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)* .

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

N = No cases in reporting sample.

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

Notes: ● Because of rounding, data may not sum to totals. ● See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from http://www.eia.gov/consumption/commercial/data/2012/

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.

Release date: April 2015
Revised date: May 2016

Table B43. Lighting equipment, number of buildings, 2012

	Number of buildings (thousand)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	5,557	5,025	1,826	4,649	2,302	525	905	473
Building floorspace (square feet)								
1,001 to 5,000	2,777	2,422	824	2,192	925	106	299	108
5,001 to 10,000	1,229	1,120	396	1,045	517	99	201	94
10,001 to 25,000	884	832	311	786	427	140	181	112
25,001 to 50,000	332	322	135	308	194	74	96	61
50,001 to 100,000	199	194	89	189	138	53	71	48
100,001 to 200,000	90	89	45	85	65	30	34	28
200,001 to 500,000	38	37	20	37	30	17	18	17
Over 500,000	8	8	5	8	7	5	5	5
Principal building activity								
Education	389	389	97	382	176	57	50	28
Food sales	177	177	49	169	69	Q	23	27
Food service	380	380	174	352	237	17	91	42
Health care	157	157	68	148	89	15	38	17
Inpatient	10	10	7	10	9	4	4	4
Outpatient	147	147	62	139	80	11	33	13
Lodging	158	158	68	125	132	18	37	23
Mercantile	602	599	273	570	301	98	175	117
Retail (other than mall)	438	435	150	407	157	36	79	33
Enclosed and strip malls	164	164	123	163	144	61	96	84
Office	1,012	1,012	361	949	484	57	161	81
Public assembly	352	341	144	299	165	41	67	46
Public order and safety	84	76	22	72	37	8	10	Q
Religious worship	412	412	253	363	222	39	90	33
Service	619	584	126	552	168	70	78	Q
Warehouse and storage	796	567	136	509	161	76	66	23
Other	125	112	40	104	44	15	13	2
Vacant	296	62	16	56	16	Q	Q	Q
Year constructed								
Before 1920	362	320	182	272	161	29	72	33
1920 to 1945	488	439	188	388	195	25	76	34
1946 to 1959	599	529	196	489	243	39	81	43
1960 to 1969	639	601	234	574	268	73	101	50
1970 to 1979	684	628	256	588	299	66	95	52
1980 to 1989	915	831	281	787	343	98	149	80
1990 to 1999	845	733	217	671	342	75	123	56
2000 to 2003	375	349	113	332	163	48	73	29
2004 to 2007	347	319	90	300	147	42	70	45
2008 to 2012	303	277	69	249	142	31	64	51

Table B43. Lighting equipment, number of buildings, 2012

	Number of buildings (thousand)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	5,557	5,025	1,826	4,649	2,302	525	905	473
Census region and division								
Northeast	805	739	293	684	354	76	148	83
New England	302	267	111	236	139	34	70	36
Middle Atlantic	504	472	182	448	214	41	79	47
Midwest	1,237	1,113	460	1,018	542	110	203	114
East North Central	735	674	276	620	349	73	138	80
West North Central	502	439	183	398	194	37	64	34
South	2,247	2,023	721	1,890	840	219	377	164
South Atlantic	1,091	995	353	948	422	122	196	96
East South Central	370	346	149	319	136	29	44	29
West South Central	786	681	219	624	282	67	137	38
West	1,267	1,150	353	1,057	566	121	177	113
Mountain	338	288	105	269	132	27	45	26
Pacific	929	863	247	788	433	95	132	87
Climate region[1]								
Very cold/Cold	2,031	1,813	730	1,663	881	189	332	190
Mixed-humid	1,743	1,589	612	1,499	698	165	300	138
Mixed-dry/Hot-dry	837	777	190	722	338	83	119	70
Hot-humid	799	714	233	652	299	74	127	59
Marine	147	132	60	113	87	Q	28	15
Number of floors								
One	3,836	3,388	1,071	3,120	1,372	326	506	261
Two	1,158	1,093	474	1,022	577	130	245	113
Three	374	359	171	329	210	37	85	48
Four to nine	177	173	104	166	132	28	62	45
Ten or more	13	12	7	12	12	5	7	7
Number of workers (main shift)								
Fewer than 5	2,892	2,366	813	2,102	885	152	327	119
5 to 9	1,085	1,081	364	1,018	501	108	180	76
10 to 19	731	731	281	703	385	82	148	89
20 to 49	513	511	206	498	292	86	130	87
50 to 99	206	206	98	199	140	53	70	55
100 to 249	93	93	43	92	66	31	32	30
250 or more	37	37	21	37	33	14	18	16
Weekly operating hours								
Fewer than 40	1,149	792	367	691	290	47	111	32
40 to 48	1,346	1,316	404	1,248	520	90	190	59
49 to 60	1,244	1,224	401	1,168	556	157	225	117
61 to 84	764	734	305	687	397	116	184	117
85 to 167	479	459	181	427	242	49	104	61
Open continuously	575	501	168	429	297	66	91	87

Table B43. Lighting equipment, number of buildings, 2012

	Number of buildings (thousand)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	5,557	5,025	1,826	4,649	2,302	525	905	473
Ownership and occupancy								
Nongovernment owned	4,781	4,294	1,637	3,955	1,997	421	826	395
Owner occupied	2,466	2,330	910	2,104	1,096	189	408	169
Leased to tenant(s)	1,745	1,600	575	1,501	721	178	325	179
Owner occupied and leased	349	342	147	329	177	54	93	47
Unoccupied	221	21	Q	20	Q	Q	Q	Q
Government owned	776	731	189	695	305	104	79	78
Federal	33	33	12	33	15	6	8	Q
State	185	175	46	166	82	29	25	19
Local	558	523	132	496	208	69	45	55
Party responsible for operation and maintenance of energy systems								
Building owner	4,715	4,223	1,510	3,895	1,946	417	722	362
Business owner or tenant	724	692	268	654	308	95	158	97
Property management	54	49	17	42	27	5	9	6
Other	64	62	31	58	22	Q	Q	Q
Provider of direct input on energy-related equipment purchases								
Building owner	4,876	4,370	1,567	4,038	2,001	436	757	385
Business owner or tenant	540	518	207	484	248	74	122	72
Property management	35	35	7	31	18	3	8	Q
Other	106	102	46	97	36	12	18	12
Campus or complex activity								
Not part of a campus or complex	3,683	3,408	1,307	3,184	1,576	333	632	295
Primary or secondary school	237	229	39	224	79	27	17	15
College or university	84	82	23	80	63	12	15	13
Office complex	154	151	53	142	72	9	31	18
Retail complex	258	241	99	231	129	48	79	51
Storage complex	314	144	28	114	42	Q	Q	Q
Religious campus or complex	197	192	105	162	88	14	37	16
Health care complex	52	49	22	45	36	6	10	10
Lodging or resort complex	65	62	22	36	47	Q	7	Q
Transportation complex	35	34	Q	32	19	Q	Q	Q
Government complex	104	97	30	87	38	13	9	16
Other	371	336	90	313	113	45	51	27

Table B43. Lighting equipment, number of buildings, 2012

	Number of buildings (thousand)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	5,557	5,025	1,826	4,649	2,302	525	905	473
Renovations in buildings constructed before 2008 (more than one may apply)								
Any type of renovation	2,094	2,006	876	1,858	1,056	232	427	244
Addition or annex	444	434	191	414	239	68	110	63
Reduction in floorspace	71	63	30	55	34	12	9	8
Roof replacement	987	943	440	869	482	110	200	135
Exterior wall replacement	194	184	86	172	101	23	56	34
Interior wall reconfiguration	889	856	403	818	496	115	213	136
Window replacement	560	547	261	507	325	72	141	98
HVAC equipment upgrade	1,101	1,066	513	1,002	613	156	259	160
Lighting upgrade	982	952	437	881	565	128	229	167
Electrical upgrade	747	718	360	660	419	94	199	110
Plumbing system upgrade	644	619	304	567	373	72	162	103
Insulation upgrade	382	370	178	353	214	40	92	73
Fire, safety, or security upgrade	616	603	304	567	356	80	162	103
Structural upgrade	152	147	85	134	90	15	47	31
Other	39	39	15	39	18	Q	9	6
No renovations	3,160	2,742	881	2,542	1,104	262	413	178
Buildings constructed 2008 or later	303	277	69	249	142	31	64	51
Energy sources (more than one may apply)								
Electricity	5,234	5,025	1,826	4,649	2,302	525	905	473
Natural gas	2,933	2,890	1,137	2,713	1,490	345	596	336
Fuel oil	467	457	192	433	239	85	105	63
District heat	48	47	20	43	38	11	13	11
District chilled water	54	53	15	52	37	7	10	10
Propane	510	496	204	451	230	65	100	49
Other	172	167	62	156	91	21	34	21
Energy end uses (more than one may apply)								
Buildings with space heating	4,722	4,637	1,720	4,325	2,180	499	864	455
Buildings with cooling	4,461	4,418	1,648	4,141	2,133	481	857	456
Buildings with water heating	4,423	4,381	1,674	4,093	2,149	493	861	460
Buildings with cooking	1,589	1,574	778	1,473	995	207	415	255
Buildings with manufacturing	259	253	99	245	105	49	49	20
Buildings with electricity generation	410	405	149	386	260	78	112	88
Percent lit when open								
Zero	70	Q	Q	Q	Q	N	N	Q
1 to 50	1,099	1,099	391	985	478	78	165	76
51 to 99	1,666	1,666	724	1,570	920	227	413	222
100	2,222	2,222	699	2,065	895	220	326	174
Building never open/electricity not used	501	32	Q	26	Q	Q	Q	Q

Table B43. Lighting equipment, number of buildings, 2012

	Number of buildings (thousand)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	5,557	5,025	1,826	4,649	2,302	525	905	473
Percent lit during off hours								
Zero	2,489	2,296	759	2,084	827	170	298	104
1 to 50	2,441	2,441	984	2,305	1,319	314	554	316
51 to 100	202	202	64	184	109	27	41	34
Building always open with no "off hours"	102	87	20	77	47	14	12	19
Electricity not used	323	N	N	N	N	N	N	N
Lighting equipment types (more than one may apply)								
Incandescent	1,826	1,826	1,826	1,656	1,041	267	512	253
Standard fluorescent	4,649	4,649	1,656	4,649	2,084	488	840	435
Compact fluorescent	2,302	2,302	1,041	2,084	2,302	319	607	350
High-intensity discharge	525	525	267	488	319	525	207	130
Halogen	905	905	512	840	607	207	905	215
LED	473	473	253	435	350	130	215	473
Other	10	10	9	10	10	Q	6	6
Window and interior lighting features (more than one may apply)								
Multipaned windows	3,012	2,902	1,152	2,726	1,496	361	611	377
Tinted window glass	1,875	1,825	697	1,723	991	275	402	250
Reflective window glass	549	541	224	504	330	88	156	106
External overhangs or awnings	1,867	1,819	761	1,728	1,011	215	396	257
Skylights or atriums	591	574	245	531	353	105	197	104
Light scheduling	918	918	390	851	598	200	300	183
Occupancy sensors	813	813	300	767	528	156	237	226
Multi-level lighting or dimming	349	349	219	320	258	86	160	117
Daylight harvesting	125	125	56	115	79	34	42	39
Demand responsive lighting	176	176	78	168	91	37	44	37
Building automation system (BAS) for lighting[2]	208	208	86	195	138	54	71	71
Equipment usage reduced when building not in full use (more than one may apply)								
Heating	3,699	3,647	1,397	3,402	1,772	405	707	373
Cooling	3,517	3,480	1,348	3,250	1,736	391	705	371
Lighting	4,757	4,757	1,758	4,414	2,180	499	882	438

Table B43. Lighting equipment, number of buildings, 2012

	Number of buildings (thousand)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	5,557	5,025	1,826	4,649	2,302	525	905	473

[1]These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

[2]In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)* .

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

N = No cases in reporting sample.

Notes: ● Because of rounding, data may not sum to totals. ● See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from http://www.eia.gov/consumption/commercial/data/2012/

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.

Release date: April 2015
Revised date: May 2016

Table B44. Lighting equipment, floorspace, 2012

	Total floorspace (million square feet)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Building floorspace (square feet)								
1,001 to 5,000	8,041	7,130	2,453	6,466	2,815	373	944	348
5,001 to 10,000	8,900	8,152	2,917	7,589	3,740	736	1,487	714
10,001 to 25,000	14,105	13,250	4,987	12,533	6,767	2,175	2,903	1,882
25,001 to 50,000	11,917	11,542	4,788	11,063	6,970	2,712	3,556	2,252
50,001 to 100,000	13,918	13,564	6,218	13,217	9,652	3,766	4,989	3,479
100,001 to 200,000	12,415	12,282	6,239	11,745	9,078	4,244	4,605	3,919
200,001 to 500,000	10,724	10,634	6,002	10,552	8,775	4,981	5,161	4,866
Over 500,000	7,074	7,014	4,803	6,915	6,021	4,409	4,413	4,612
Principal building activity								
Education	12,239	12,239	5,004	12,180	8,559	4,376	3,069	2,135
Food sales	1,252	1,252	443	1,232	560	Q	271	323
Food service	1,819	1,819	924	1,671	1,177	121	496	275
Health care	4,155	4,155	2,391	4,074	3,535	1,448	1,875	2,245
Inpatient	2,374	2,374	1,745	2,373	2,260	1,217	1,452	1,647
Outpatient	1,781	1,781	646	1,701	1,275	231	423	598
Lodging	5,826	5,817	3,585	5,409	5,258	1,848	2,696	2,024
Mercantile	11,330	11,320	6,646	10,714	8,053	3,959	5,925	5,118
Retail (other than mall)	5,439	5,430	1,671	4,864	2,712	891	1,608	1,295
Enclosed and strip malls	5,890	5,890	4,975	5,850	5,341	3,069	4,317	3,824
Office	15,952	15,952	7,541	15,547	11,438	3,858	5,598	5,034
Public assembly	5,559	5,527	3,035	5,208	4,125	1,922	2,172	1,955
Public order and safety	1,440	1,414	623	1,375	1,086	404	416	360
Religious worship	4,557	4,557	3,015	4,293	3,187	839	1,540	902
Service	4,630	4,379	1,026	4,142	1,569	980	1,024	Q
Warehouse and storage	13,077	12,079	3,094	11,280	4,040	2,934	2,438	998
Other	2,002	1,930	790	1,880	783	383	344	290
Vacant	3,256	1,128	288	1,076	445	Q	Q	Q
Year constructed								
Before 1920	3,983	3,715	2,292	3,280	2,346	763	1,208	744
1920 to 1945	6,025	5,774	2,750	5,472	3,714	1,337	1,948	1,528
1946 to 1959	7,381	7,087	3,494	6,860	4,340	1,785	2,028	1,306
1960 to 1969	10,362	10,061	4,629	9,857	6,463	2,525	2,948	2,224
1970 to 1979	10,846	10,354	5,560	9,992	6,913	3,311	3,418	2,632
1980 to 1989	15,230	14,688	6,972	14,263	9,199	4,591	5,124	4,374
1990 to 1999	13,803	12,856	5,494	12,267	8,327	4,127	4,364	3,489
2000 to 2003	7,215	7,100	2,874	6,810	4,692	2,072	2,580	1,915
2004 to 2007	6,524	6,378	2,745	6,209	4,249	1,770	2,514	2,113
2008 to 2012	5,723	5,556	1,595	5,070	3,574	1,116	1,929	1,747

Table B44. Lighting equipment, floorspace, 2012

	Total floorspace (million square feet)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Census region and division								
Northeast	15,534	15,071	7,565	14,473	10,771	4,510	5,267	4,752
New England	4,302	4,062	2,046	3,771	2,886	1,161	1,494	1,363
Middle Atlantic	11,232	11,009	5,520	10,702	7,886	3,349	3,774	3,388
Midwest	18,919	18,190	9,038	17,514	11,841	5,357	6,169	5,148
East North Central	12,742	12,323	6,180	11,880	8,336	4,102	4,590	3,759
West North Central	6,178	5,867	2,858	5,634	3,505	1,255	1,578	1,389
South	34,279	32,621	14,581	31,363	20,042	9,347	10,970	7,559
South Atlantic	17,981	17,449	7,828	16,888	10,855	5,325	6,161	4,553
East South Central	4,904	4,726	2,468	4,573	2,923	1,182	1,349	1,232
West South Central	11,394	10,446	4,286	9,901	6,263	2,841	3,459	1,774
West	18,360	17,687	7,222	16,732	11,163	4,182	5,653	4,612
Mountain	4,981	4,677	2,253	4,529	3,007	1,314	1,663	1,513
Pacific	13,379	13,010	4,969	12,203	8,156	2,868	3,990	3,099
Climate region[1]								
Very cold/Cold	31,898	30,542	14,837	29,315	20,485	8,734	10,366	9,156
Mixed-humid	27,873	27,096	13,429	26,407	17,410	8,547	9,391	6,936
Mixed-dry/Hot-dry	12,037	11,670	4,139	11,018	6,692	2,661	3,257	2,514
Hot-humid	12,831	11,881	4,769	11,096	7,285	3,035	4,152	2,733
Marine	2,454	2,381	1,232	2,246	1,944	420	893	732
Number of floors								
One	39,809	37,113	13,966	34,818	18,664	8,474	9,952	6,930
Two	20,206	19,726	9,208	19,068	12,629	5,326	5,781	3,905
Three	8,140	8,055	3,886	7,767	5,761	2,239	2,789	1,950
Four to nine	13,535	13,307	7,842	13,083	11,610	4,469	6,053	5,642
Ten or more	5,404	5,368	3,504	5,344	5,152	2,888	3,484	3,645
Number of workers (main shift)								
Fewer than 5	17,751	14,286	4,834	12,622	6,162	1,664	2,418	993
5 to 9	8,973	8,925	3,346	8,446	4,404	1,445	1,953	902
10 to 19	9,623	9,614	3,753	9,292	5,181	1,673	2,355	1,360
20 to 49	14,514	14,512	6,370	14,195	9,078	3,603	4,800	3,548
50 to 99	13,476	13,476	6,902	13,040	9,597	4,563	5,243	4,223
100 to 249	10,941	10,941	5,568	10,782	8,461	4,441	4,227	4,231
250 or more	11,815	11,815	7,633	11,704	10,933	6,007	7,062	6,814
Weekly operating hours								
Fewer than 40	8,220	5,514	2,684	5,037	2,645	754	1,073	445
40 to 48	15,828	15,693	6,209	15,156	7,767	3,063	3,615	1,876
49 to 60	20,529	20,401	7,753	19,671	12,581	5,227	5,702	4,094
61 to 84	15,867	15,773	8,805	15,372	11,430	5,341	6,696	6,080
85 to 167	9,395	9,336	4,289	8,702	6,225	2,726	3,544	2,832
Open continuously	17,253	16,852	8,667	16,144	13,169	6,286	7,428	6,745

Table B44. Lighting equipment, floorspace, 2012

	Total floorspace (million square feet)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Ownership and occupancy								
Nongovernment owned	67,550	64,509	29,885	61,330	40,348	16,399	22,488	17,210
Owner occupied	30,637	29,949	13,181	28,109	18,432	6,238	8,652	6,135
Leased to tenant(s)	26,115	25,543	11,650	24,494	15,538	6,932	9,504	7,422
Owner occupied and leased	8,873	8,778	5,011	8,508	6,323	3,190	4,293	3,647
Unoccupied	1,925	239	Q	219	Q	Q	Q	Q
Government owned	19,543	19,060	8,522	18,751	13,469	6,998	5,571	4,862
Federal	1,573	1,573	761	1,572	1,288	804	949	798
State	5,539	5,412	2,581	5,320	4,009	1,955	1,716	1,480
Local	12,431	12,074	5,180	11,859	8,171	4,238	2,906	2,584
Party responsible for operation and maintenance of energy systems								
Building owner	73,702	70,469	31,846	67,399	46,163	19,310	22,602	17,924
Business owner or tenant	11,309	11,045	5,466	10,748	6,369	3,351	4,596	3,455
Property management	1,250	1,230	681	1,127	841	462	628	502
Other	832	825	413	807	444	Q	Q	Q
Provider of direct input on energy-related equipment purchases								
Building owner	76,271	72,961	33,177	69,883	47,361	19,929	23,577	18,671
Business owner or tenant	8,256	8,059	3,996	7,819	4,871	2,621	3,448	2,431
Property management	880	880	411	733	573	330	453	360
Other	1,686	1,668	822	1,647	1,012	517	581	609
Campus or complex activity								
Not part of a campus or complex	52,275	50,347	23,510	48,384	31,219	12,969	16,382	11,924
Primary or secondary school	4,616	4,580	1,947	4,534	2,857	1,742	1,103	792
College or university	4,068	3,990	1,216	3,928	3,521	876	1,147	1,197
Office complex	3,456	3,383	1,586	3,281	2,536	910	1,329	1,204
Retail complex	5,159	5,011	3,088	4,795	3,723	1,995	2,705	2,325
Storage complex	3,212	2,360	397	1,951	695	566	Q	Q
Religious campus or complex	1,932	1,911	1,294	1,704	1,189	379	666	438
Health care complex	3,362	3,302	2,212	3,289	2,973	1,372	1,671	1,810
Lodging or resort complex	1,295	1,284	675	1,088	1,113	520	573	Q
Transportation complex	554	526	231	499	356	223	209	211
Government complex	2,107	2,087	798	2,005	1,436	660	683	608
Other	5,057	4,787	1,453	4,622	2,199	1,184	1,371	953

Table B44. Lighting equipment, floorspace, 2012

	Total floorspace (million square feet)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Renovations in buildings constructed before 2008 (more than one may apply)								
Any type of renovation	42,216	41,479	21,682	40,110	29,853	13,577	16,029	13,577
Addition or annex	13,022	12,924	7,595	12,770	9,867	5,170	5,328	4,711
Reduction in floorspace	1,753	1,718	1,071	1,652	1,287	738	581	603
Roof replacement	20,917	20,674	11,459	20,154	15,616	7,578	8,126	7,492
Exterior wall replacement	4,230	4,197	2,231	4,118	3,247	1,569	1,951	1,725
Interior wall reconfiguration	21,340	21,006	11,613	20,643	16,528	7,193	9,477	8,549
Window replacement	12,265	12,193	6,862	11,805	9,675	4,328	5,358	4,526
HVAC equipment upgrade	26,779	26,504	14,715	25,911	20,410	9,918	11,421	9,614
Lighting upgrade	25,503	25,268	13,502	24,681	19,342	8,933	10,688	9,803
Electrical upgrade	16,160	15,948	9,523	15,553	12,613	5,533	7,293	6,345
Plumbing system upgrade	13,828	13,701	8,026	13,354	11,096	4,748	6,417	5,653
Insulation upgrade	7,607	7,471	4,343	7,377	5,782	2,503	3,255	3,303
Fire, safety, or security upgrade	17,196	17,108	9,766	16,727	13,892	6,325	7,996	7,226
Structural upgrade	3,913	3,876	2,199	3,791	3,152	1,316	1,902	1,672
Other	848	848	499	848	656	Q	492	391
No renovations	39,154	36,534	15,129	34,901	20,389	8,704	10,101	6,748
Buildings constructed 2008 or later	5,723	5,556	1,595	5,070	3,574	1,116	1,929	1,747
Energy sources (more than one may apply)								
Electricity	84,869	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Natural gas	58,725	58,278	29,672	56,575	40,392	18,328	21,261	17,539
Fuel oil	20,200	20,120	11,355	19,742	16,251	8,782	9,690	8,933
District heat	5,964	5,873	3,161	5,781	5,314	2,555	2,769	2,871
District chilled water	4,608	4,545	2,284	4,516	4,071	1,729	1,805	1,941
Propane	7,706	7,652	3,803	7,281	4,622	2,584	2,865	2,098
Other	3,826	3,784	1,735	3,685	2,664	957	1,466	1,247
Energy end uses (more than one may apply)								
Buildings with space heating	80,078	79,384	37,292	76,646	52,287	22,631	27,225	21,503
Buildings with cooling	79,294	78,876	37,119	76,125	52,285	22,734	27,618	21,869
Buildings with water heating	79,015	78,622	37,160	75,803	52,606	22,834	27,589	21,894
Buildings with cooking	38,546	38,494	23,469	37,728	30,809	14,810	17,558	15,043
Buildings with manufacturing	5,078	5,044	2,387	4,928	2,363	1,421	1,506	751
Buildings with electricity generation	25,642	25,605	13,305	25,096	21,247	10,397	12,027	11,434
Percent lit when open								
Zero	322	Q	Q	Q	Q	N	N	Q
1 to 50	12,628	12,628	4,867	11,798	6,202	2,418	2,884	1,937
51 to 99	34,814	34,814	19,106	33,816	25,376	11,003	15,045	11,847
100	35,726	35,726	14,283	34,132	22,087	9,929	10,084	8,278
Building never open/electricity not used	3,603	371	Q	326	Q	Q	Q	Q

Table B44. Lighting equipment, floorspace, 2012

	Total floorspace (million square feet)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Percent lit during off hours								
Zero	24,746	23,500	8,122	21,910	11,540	4,722	4,692	3,038
1 to 50	50,753	50,753	25,337	49,312	35,189	15,141	19,374	15,404
51 to 100	6,926	6,926	3,936	6,568	5,611	2,627	3,022	2,712
Building always open with no "off hours"	2,443	2,390	1,012	2,291	1,477	906	970	917
Electricity not used	2,225	N	N	N	N	N	N	N
Lighting equipment types (more than one may apply)								
Incandescent	38,406	38,406	38,406	37,447	30,603	15,324	19,550	15,118
Standard fluorescent	80,081	80,081	37,447	80,081	51,568	22,703	27,403	21,386
Compact fluorescent	53,816	53,816	30,603	51,568	53,816	18,808	23,433	19,584
High-intensity discharge	23,396	23,396	15,324	22,703	18,808	23,396	13,211	10,729
Halogen	28,059	28,059	19,550	27,403	23,433	13,211	28,059	13,934
LED	22,071	22,071	15,118	21,386	19,584	10,729	13,934	22,071
Other	446	446	390	446	446	Q	361	357
Window and interior lighting features (more than one may apply)								
Multipaned windows	60,362	59,205	29,012	57,237	41,014	18,216	21,614	17,864
Tinted window glass	45,025	44,068	21,931	42,856	31,503	15,006	17,327	14,758
Reflective window glass	15,908	15,759	8,748	15,232	12,668	6,287	7,896	6,873
External overhangs or awnings	32,188	31,869	17,405	30,762	23,268	10,433	13,417	10,694
Skylights or atriums	22,261	21,902	11,479	21,291	16,651	8,534	10,239	8,409
Light scheduling	30,263	30,263	16,639	29,056	24,267	12,845	15,175	12,888
Occupancy sensors	35,871	35,871	18,510	34,858	28,252	13,754	16,401	15,662
Multi-level lighting or dimming	14,534	14,534	9,302	13,971	12,688	6,520	8,888	7,984
Daylight harvesting	6,114	6,114	3,387	6,032	4,887	2,868	3,341	3,980
Demand responsive lighting	4,738	4,738	2,946	4,506	3,502	2,061	2,437	2,251
Building automation system (BAS) for lighting[2]	12,068	12,068	6,984	11,721	10,143	5,684	6,577	6,766
Equipment usage reduced when building not in full use (more than one may apply)								
Heating	63,167	62,669	30,314	60,546	42,331	18,572	21,904	17,671
Cooling	62,516	62,156	30,210	59,941	42,180	18,424	22,268	17,939
Lighting	78,594	78,594	36,405	75,380	51,068	21,872	26,646	20,668

Table B44. Lighting equipment, floorspace, 2012

	Total floorspace (million square feet)							
			Lighting equipment (more than one may apply)					
	All buildings	Lit buildings	Incand-escent	Standard fluor-escent	Compact fluor-escent	High-intensity dis-charge	Halogen	LED
All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071

[1]These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

[2]In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)* .

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

N = No cases in reporting sample.

Notes: ● Because of rounding, data may not sum to totals. ● See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from http://www.eia.gov/consumption/commercial/data/2012/

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.

Release date: April 2015
Revised date: May 2016

Table B45. Refrigeration equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Type of refrigeration equipment (more than one may apply)						
	All buildings	Buildings with any refrig-eration equip-ment	Walk-in units	Open cases or cabinets	Closed cases or cabinets	Large cold storage areas	Comm-ercial ice makers	Resid-ential-type or compact units	Vending mach-ines
All buildings	5,557	3,984	811	295	826	78	846	3,388	960
Building floorspace (square feet)									
1,001 to 5,000	2,777	1,815	344	103	344	Q	279	1,520	182
5,001 to 10,000	1,229	903	150	57	163	Q	172	791	167
10,001 to 25,000	884	688	116	48	130	Q	147	585	236
25,001 to 50,000	332	276	60	23	68	Q	82	239	153
50,001 to 100,000	199	177	73	29	60	9	90	150	117
100,001 to 200,000	90	82	40	20	35	6	44	68	66
200,001 to 500,000	38	35	22	13	20	4	25	29	31
Over 500,000	8	8	5	3	4	1	6	7	7
Principal building activity									
Education	389	277	80	21	71	Q	68	229	97
Food sales	177	175	145	74	126	19	85	58	44
Food service	380	380	293	72	233	Q	259	201	42
Health care	157	142	9	6	15	1	18	139	36
Inpatient	10	10	8	3	5	1	9	9	9
Outpatient	147	132	Q	Q	9	Q	9	131	27
Lodging	158	144	37	4	32	Q	61	126	68
Mercantile	602	500	149	83	181	19	113	417	173
Retail (other than mall)	438	338	47	18	76	Q	21	265	76
Enclosed and strip malls	164	162	102	66	105	11	91	152	97
Office	1,012	816	23	10	39	Q	72	788	179
Public assembly	352	268	28	15	48	Q	51	243	48
Public order and safety	84	78	Q	Q	Q	Q	21	71	24
Religious worship	412	351	Q	Q	36	Q	39	330	12
Service	619	415	Q	N	Q	N	Q	384	118
Warehouse and storage	796	314	19	Q	11	12	29	286	90
Other	125	82	7	Q	8	Q	6	77	21
Vacant	296	44	Q	Q	Q	N	Q	37	Q
Year constructed									
Before 1920	362	257	44	18	54	Q	32	233	23
1920 to 1945	488	344	53	18	74	Q	45	296	47
1946 to 1959	599	433	71	24	72	Q	75	377	89
1960 to 1969	639	476	101	36	98	9	100	410	138
1970 to 1979	684	498	115	36	96	7	101	427	135
1980 to 1989	915	626	132	40	123	17	147	528	169
1990 to 1999	845	595	132	42	139	14	160	481	149
2000 to 2003	375	280	63	28	60	3	59	234	82
2004 to 2007	347	255	52	27	50	9	53	217	66
2008 to 2012	303	220	48	26	61	Q	74	185	62

Table B45. Refrigeration equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Type of refrigeration equipment (more than one may apply)						
	All buildings	Buildings with any refrig-eration equip-ment	Walk-in units	Open cases or cabinets	Closed cases or cabinets	Large cold storage areas	Comm-ercial ice makers	Resid-ential-type or compact units	Vending mach-ines
All buildings	5,557	3,984	811	295	826	78	846	3,388	960
Census region and division									
Northeast	805	593	139	51	155	12	101	511	135
New England	302	212	59	16	64	Q	36	186	47
Middle Atlantic	504	381	81	35	91	11	64	325	88
Midwest	1,237	898	175	53	190	14	167	795	194
East North Central	735	566	113	38	121	9	111	495	117
West North Central	502	332	62	16	68	Q	55	300	77
South	2,247	1,630	332	125	313	33	412	1,342	436
South Atlantic	1,091	789	180	71	167	19	216	640	220
East South Central	370	311	51	23	59	Q	77	261	89
West South Central	786	530	100	32	87	7	119	441	126
West	1,267	864	166	65	169	19	166	740	195
Mountain	338	222	43	17	44	Q	49	185	51
Pacific	929	641	122	48	125	14	118	554	145
Climate region[1]									
Very cold/Cold	2,031	1,427	295	89	326	26	266	1,250	321
Mixed-humid	1,743	1,313	272	114	274	27	311	1,091	327
Mixed-dry/Hot-dry	837	575	90	41	94	10	100	498	130
Hot-humid	799	566	126	41	107	12	142	455	157
Marine	147	104	28	10	Q	Q	25	94	25
Number of floors									
One	3,836	2,602	553	212	540	50	541	2,176	563
Two	1,158	915	151	49	165	20	183	800	235
Three	374	301	59	16	74	Q	60	267	78
Four to nine	177	154	43	15	40	4	54	135	75
Ten or more	13	12	6	3	6	(*)	7	10	10
Number of workers (main shift)									
Fewer than 5	2,892	1,697	229	73	282	Q	232	1,449	195
5 to 9	1,085	899	169	66	185	Q	167	764	169
10 to 19	731	632	150	43	134	Q	160	532	159
20 to 49	513	445	139	57	118	14	141	379	205
50 to 99	206	190	75	30	55	8	80	162	132
100 to 249	93	86	34	17	36	7	43	72	69
250 or more	37	35	16	9	16	2	23	30	31
Weekly operating hours									
Fewer than 40	1,149	604	32	Q	60	Q	60	576	27
40 to 48	1,346	986	65	24	72	Q	87	916	178
49 to 60	1,244	965	96	24	129	8	137	877	250
61 to 84	764	624	238	88	237	30	205	486	226
85 to 167	479	409	243	89	221	19	190	226	127
Open continuously	575	395	136	59	107	12	167	307	151

Table B45. Refrigeration equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Type of refrigeration equipment (more than one may apply)						
	All buildings	Buildings with any refrig-eration equip-ment	Walk-in units	Open cases or cabinets	Closed cases or cabinets	Large cold storage areas	Comm-ercial ice makers	Resid-ential-type or compact units	Vending mach-ines
All buildings	5,557	3,984	811	295	826	78	846	3,388	960
Campus or complex activity									
Not part of a campus or complex	3,683	2,864	618	223	611	62	616	2,406	629
Primary or secondary school	237	114	45	12	32	Q	33	87	44
College or university	84	69	8	4	9	Q	15	57	44
Office complex	154	112	4	3	4	Q	12	107	30
Retail complex	258	210	84	41	85	7	67	171	79
Storage complex	314	37	Q	N	Q	Q	Q	33	7
Religious campus or complex	197	158	Q	Q	29	Q	22	138	Q
Health care complex	52	46	14	5	9	(*)	19	42	18
Lodging or resort complex	65	49	7	Q	11	Q	14	42	14
Transportation complex	35	25	(*)	Q	Q	Q	Q	25	7
Government complex	104	74	3	Q	11	Q	12	72	22
Other	371	226	16	Q	25	Q	34	209	54
Energy sources (more than one may apply)									
Electricity	5,234	3,984	811	295	826	78	846	3,388	960
Natural gas	2,933	2,433	593	208	573	53	594	2,032	648
Fuel oil	467	385	82	27	89	10	107	346	130
District heat	48	38	12	4	9	Q	15	30	27
District chilled water	54	36	7	3	7	Q	11	30	22
Propane	510	430	106	39	115	9	110	376	93
Other	172	141	33	7	29	Q	32	125	40
Energy end uses (more than one may apply)									
Buildings with space heating	4,722	3,801	768	286	783	70	805	3,235	926
Buildings with cooling	4,461	3,687	780	287	777	75	824	3,119	921
Buildings with water heating	4,423	3,726	803	293	813	76	837	3,143	924
Buildings with cooking	1,589	1,584	660	242	600	53	630	1,227	354
Buildings with manufacturing	259	215	39	11	42	Q	38	190	57
Buildings with electricity generation	410	377	118	44	110	15	161	329	184
Refrigeration equipment (more than one may apply)									
Any refrigeration	3,984	3,984	811	295	826	78	846	3,388	960
Walk-in units	811	811	811	241	500	58	523	447	260
Cases or cabinets	915	915	555	295	826	51	534	517	274
Large cold storage areas	78	78	58	28	49	78	48	51	35
Commercial ice makers	846	846	523	216	485	48	846	581	328
Residential-type or compact units	3,388	3,388	447	170	469	51	581	3,388	777
Vending machines	960	960	260	121	249	35	328	777	960
No refrigeration	1,573	N	N	N	N	N	N	N	N

Table B45. Refrigeration equipment, number of buildings, 2012

	Number of buildings (thousand)								
			Type of refrigeration equipment (more than one may apply)						
	All buildings	Buildings with any refrig-eration equip-ment	Walk-in units	Open cases or cabinets	Closed cases or cabinets	Large cold storage areas	Comm-ercial ice makers	Resid-ential-type or compact units	Vending mach-ines
All buildings	5,557	3,984	811	295	826	78	846	3,388	960
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar or concession stand	153	153	97	58	81	18	89	115	72
Fast food or small restaurant	173	173	143	80	125	15	118	129	88
Cafeteria or large restaurant	130	129	105	35	74	6	90	99	83
Commercial kitchen/ food preparation area	282	281	146	61	147	18	145	208	115
Small kitchen area	736	733	96	45	113	13	120	691	119

[1]These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

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

N = No cases in reporting sample.

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

Notes: ● Because of rounding, data may not sum to totals. ● See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from http://www.eia.gov/consumption/commercial/data/2012/

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.

Release date: April 2015
Revised date: May 2016

Table B46. Refrigeration equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Type of refrigeration equipment (more than one may apply)						
	All buildings	Buildings with any refrig-eration equip-ment	Walk-in units	Open cases or cabinets	Closed cases or cabinets	Large cold storage areas	Comm-ercial ice makers	Resid-ential-type or compact units	Vending mach-ines
All buildings	87,093	73,645	28,361	13,712	25,988	4,171	32,734	62,381	43,936
Building floorspace (square feet)									
1,001 to 5,000	8,041	5,448	1,039	294	1,034	Q	851	4,571	531
5,001 to 10,000	8,900	6,565	1,103	428	1,175	Q	1,248	5,741	1,252
10,001 to 25,000	14,105	11,012	1,837	774	2,086	Q	2,424	9,307	3,940
25,001 to 50,000	11,917	9,901	2,247	826	2,486	Q	3,017	8,558	5,558
50,001 to 100,000	13,918	12,334	5,193	2,077	4,305	718	6,276	10,393	8,174
100,001 to 200,000	12,415	11,371	5,729	2,799	4,901	825	6,236	9,530	9,288
200,001 to 500,000	10,724	10,080	6,233	3,594	5,716	1,139	7,022	8,371	8,881
Over 500,000	7,074	6,935	4,981	2,921	4,286	804	5,660	5,910	6,311
Principal building activity									
Education	12,239	11,319	7,060	2,072	5,176	Q	6,152	8,956	7,666
Food sales	1,252	1,248	1,026	848	1,014	285	688	505	670
Food service	1,819	1,819	1,524	373	1,135	Q	1,338	929	207
Health care	4,155	4,060	2,332	1,508	2,082	319	2,891	3,678	3,232
Inpatient	2,374	2,374	2,216	1,430	1,753	311	2,293	2,059	2,297
Outpatient	1,781	1,686	Q	Q	329	Q	598	1,619	936
Lodging	5,826	5,713	3,126	898	2,535	Q	4,303	4,554	4,286
Mercantile	11,330	10,328	6,088	4,785	6,465	1,200	5,554	8,831	7,074
Retail (other than mall)	5,439	4,447	1,466	1,249	1,756	Q	1,141	3,180	2,399
Enclosed and strip malls	5,890	5,881	4,622	3,536	4,709	918	4,414	5,651	4,675
Office	15,952	13,979	3,419	1,878	3,394	Q	5,458	12,888	8,853
Public assembly	5,559	4,956	1,545	816	1,495	Q	2,189	4,309	2,714
Public order and safety	1,440	1,384	Q	Q	Q	Q	521	1,203	944
Religious worship	4,557	4,243	Q	Q	775	Q	1,064	3,789	449
Service	4,630	3,626	Q	N	Q	N	Q	3,145	1,710
Warehouse and storage	13,077	8,584	848	Q	842	883	1,695	7,545	4,998
Other	2,002	1,716	369	Q	398	Q	301	1,513	936
Vacant	3,256	670	Q	Q	Q	N	Q	536	Q
Year constructed									
Before 1920	3,983	3,015	667	337	757	Q	741	2,569	1,169
1920 to 1945	6,025	4,839	1,591	743	1,691	Q	1,595	4,003	2,114
1946 to 1959	7,381	6,269	2,104	689	1,743	Q	2,350	5,336	3,648
1960 to 1969	10,362	8,963	3,574	1,432	2,926	387	3,650	7,745	5,235
1970 to 1979	10,846	9,062	4,015	1,832	3,643	497	4,044	7,772	5,659
1980 to 1989	15,230	12,812	5,184	2,390	4,445	829	6,287	10,950	8,021
1990 to 1999	13,803	11,609	4,937	2,590	4,303	688	5,983	9,498	7,222
2000 to 2003	7,215	6,446	2,184	1,021	2,251	418	3,015	5,535	4,228
2004 to 2007	6,524	5,635	2,390	1,535	2,102	520	2,628	4,597	3,530
2008 to 2012	5,723	4,995	1,715	1,144	2,127	Q	2,441	4,376	3,109

Table B46. Refrigeration equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Type of refrigeration equipment (more than one may apply)						
	All buildings	Buildings with any refrig-eration equip-ment	Walk-in units	Open cases or cabinets	Closed cases or cabinets	Large cold storage areas	Comm-ercial ice makers	Resid-ential-type or compact units	Vending mach-ines
All buildings	87,093	73,645	28,361	13,712	25,988	4,171	32,734	62,381	43,936
Census region and division									
Northeast	15,534	13,612	5,870	2,771	5,523	569	5,573	11,436	8,448
New England	4,302	3,568	1,424	539	1,444	Q	1,240	3,081	1,902
Middle Atlantic	11,232	10,044	4,445	2,232	4,080	430	4,333	8,354	6,546
Midwest	18,919	16,570	6,331	2,779	6,300	972	6,598	14,257	9,673
East North Central	12,742	11,374	4,481	1,959	4,475	695	4,666	9,850	6,685
West North Central	6,178	5,196	1,850	821	1,825	Q	1,932	4,407	2,988
South	34,279	28,755	10,777	5,224	9,239	1,700	14,516	24,189	17,627
South Atlantic	17,981	15,268	6,399	3,134	4,938	1,049	7,957	13,129	9,706
East South Central	4,904	4,498	1,199	698	1,531	Q	2,457	3,747	2,702
West South Central	11,394	8,989	3,179	1,392	2,770	316	4,102	7,312	5,219
West	18,360	14,709	5,384	2,938	4,926	930	6,048	12,499	8,188
Mountain	4,981	4,179	1,898	790	1,584	Q	2,093	3,323	2,529
Pacific	13,379	10,530	3,486	2,148	3,342	676	3,955	9,176	5,659
Climate region[1]									
Very cold/Cold	31,898	27,633	10,742	4,568	10,468	1,531	11,045	23,817	16,400
Mixed-humid	27,873	24,268	10,079	4,815	8,565	1,297	12,168	20,411	15,132
Mixed-dry/Hot-dry	12,037	9,429	2,842	1,913	2,881	554	3,441	8,210	5,131
Hot-humid	12,831	10,299	3,922	1,918	3,423	701	5,199	8,180	6,115
Marine	2,454	2,015	775	498	651	Q	881	1,762	1,157
Number of floors									
One	39,809	31,001	10,649	5,883	10,051	1,931	11,581	25,926	15,933
Two	20,206	17,915	6,100	2,339	5,301	942	6,986	15,363	9,519
Three	8,140	7,152	2,393	741	2,494	Q	2,980	6,139	4,288
Four to nine	13,535	12,368	5,897	2,881	5,105	751	7,380	10,708	9,715
Ten or more	5,404	5,209	3,322	1,868	3,037	348	3,807	4,245	4,481
Number of workers (main shift)									
Fewer than 5	17,751	10,252	1,110	293	1,764	Q	1,648	8,745	2,055
5 to 9	8,973	7,466	1,132	490	1,420	Q	1,553	6,349	2,088
10 to 19	9,623	8,231	1,695	470	1,750	Q	2,466	7,070	3,252
20 to 49	14,514	13,005	4,819	2,034	3,843	641	5,227	11,172	7,595
50 to 99	13,476	12,696	6,582	3,018	5,217	988	6,404	10,606	9,583
100 to 249	10,941	10,456	5,592	3,109	5,183	1,059	6,584	8,529	8,983
250 or more	11,815	11,539	7,432	4,298	6,811	994	8,852	9,909	10,379
Weekly operating hours									
Fewer than 40	8,220	4,464	763	Q	889	Q	923	4,054	804
40 to 48	15,828	13,062	3,048	1,032	2,413	Q	3,721	11,544	6,037
49 to 60	20,529	17,409	4,492	1,553	4,178	409	5,866	15,168	9,750
61 to 84	15,867	14,497	6,754	4,099	6,408	1,128	7,027	12,583	9,416
85 to 167	9,395	8,480	4,133	2,352	4,352	835	4,424	6,464	5,755
Open continuously	17,253	15,732	9,171	4,541	7,748	1,409	10,772	12,566	12,173

Table B46. Refrigeration equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Type of refrigeration equipment (more than one may apply)						
	All buildings	Buildings with any refrig-eration equip-ment	Walk-in units	Open cases or cabinets	Closed cases or cabinets	Large cold storage areas	Comm-ercial ice makers	Resid-ential-type or compact units	Vending mach-ines
All buildings	87,093	73,645	28,361	13,712	25,988	4,171	32,734	62,381	43,936
Campus or complex activity									
Not part of a campus or complex	52,275	45,311	16,375	7,615	14,789	2,706	18,912	38,547	24,972
Primary or secondary school	4,616	3,759	2,684	692	1,922	Q	2,060	2,912	2,736
College or university	4,068	3,703	704	381	815	Q	1,446	3,013	3,106
Office complex	3,456	2,919	768	487	637	Q	1,198	2,708	1,834
Retail complex	5,159	4,684	2,894	2,320	2,961	584	2,682	4,178	3,216
Storage complex	3,212	861	Q	N	Q	Q	Q	706	406
Religious campus or complex	1,932	1,726	Q	Q	591	Q	460	1,279	Q
Health care complex	3,362	3,277	2,434	1,348	2,066	279	2,804	2,833	2,791
Lodging or resort complex	1,295	1,220	744	Q	591	Q	908	843	814
Transportation complex	554	450	198	Q	Q	Q	283	432	296
Government complex	2,107	1,902	576	Q	806	Q	817	1,633	1,409
Other	5,057	3,832	727	Q	622	Q	1,114	3,297	2,096
Energy sources (more than one may apply)									
Electricity	84,869	73,645	28,361	13,712	25,988	4,171	32,734	62,381	43,936
Natural gas	58,725	53,580	24,043	11,668	21,325	3,530	26,676	45,249	34,019
Fuel oil	20,200	19,094	10,470	5,108	9,160	1,575	12,029	16,450	14,989
District heat	5,964	5,598	2,638	1,312	2,478	212	3,537	4,667	4,874
District chilled water	4,608	4,309	1,786	904	1,776	Q	2,553	3,699	3,647
Propane	7,706	7,073	3,156	1,250	2,927	569	3,598	6,004	4,254
Other	3,826	3,626	1,592	728	1,319	Q	1,663	3,016	2,528
Energy end uses (more than one may apply)									
Buildings with space heating	80,078	71,446	27,734	13,458	25,488	3,991	32,098	60,495	43,101
Buildings with cooling	79,294	71,250	27,981	13,574	25,611	4,063	32,480	60,330	43,356
Buildings with water heating	79,015	71,439	28,290	13,673	25,856	4,139	32,576	60,306	43,096
Buildings with cooking	38,546	38,499	25,906	12,439	21,359	3,280	25,727	31,264	24,686
Buildings with manufacturing	5,078	4,517	1,009	372	1,087	Q	1,125	4,047	2,522
Buildings with electricity generation	25,642	24,873	14,439	7,171	12,346	2,173	16,752	21,557	20,385
Refrigeration equipment (more than one may apply)									
Any refrigeration	73,645	73,645	28,361	13,712	25,988	4,171	32,734	62,381	43,936
Walk-in units	28,361	28,361	28,361	11,940	18,593	3,175	22,620	21,549	21,314
Cases or cabinets	28,719	28,719	20,388	13,712	25,988	3,084	21,298	21,701	21,232
Large cold storage areas	4,171	4,171	3,175	2,354	2,801	4,171	2,960	3,185	3,153
Commercial ice makers	32,734	32,734	22,620	11,305	19,689	2,960	32,734	27,085	25,508
Residential-type or compact units	62,381	62,381	21,549	10,918	19,696	3,185	27,085	62,381	37,171
Vending machines	43,936	43,936	21,314	11,425	19,337	3,153	25,508	37,171	43,936
No refrigeration	13,448	N	N	N	N	N	N	N	N

Table B46. Refrigeration equipment, floorspace, 2012

	Total floorspace (million square feet)								
			Type of refrigeration equipment (more than one may apply)						
	All buildings	Buildings with any refrig-eration equip-ment	Walk-in units	Open cases or cabinets	Closed cases or cabinets	Large cold storage areas	Comm-ercial ice makers	Resid-ential-type or compact units	Vending mach-ines
All buildings	87,093	73,645	28,361	13,712	25,988	4,171	32,734	62,381	43,936
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar or concession stand	9,884	9,866	8,063	4,699	6,772	1,328	8,194	8,482	8,153
Fast food or small restaurant	9,787	9,787	8,456	5,648	7,783	1,364	8,187	7,913	7,954
Cafeteria or large restaurant	15,222	15,219	13,687	6,211	10,137	1,180	12,404	12,434	12,235
Commercial kitchen/ food preparation area	16,150	16,142	13,735	6,147	11,039	2,183	12,848	12,754	12,279
Small kitchen area	14,054	14,035	6,719	3,356	5,864	1,219	7,518	12,806	7,716

[1]These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

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

N = No cases in reporting sample.

Notes: ● Because of rounding, data may not sum to totals. ● See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from http://www.eia.gov/consumption/commercial/data/2012/

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.