

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	Individual space heaters	District heat	Boilers	Packaged 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	Individual space heaters	District heat	Boilers	Packaged 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 region¹									
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	Individual space heaters	District heat	Boilers	Packaged 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	Individual space heaters	District heat	Boilers	Packaged 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	Individual space heaters	District heat	Boilers	Packaged 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	Individual space heaters	District heat	Boilers	Packaged 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

¹These 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).

²In 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.