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Table B19. Energy sources, number of buildings, 2018

	Number of buildings (thousand)									
	All buildings	Buildings using any energy source	Elec-tricity	Natural gas	Fuel oil	District heat	District chilled water	Propane	Solar	Wood, coal, and other
All buildings	5,918	5,619	5,613	2,974	583	86	55	676	99	180
Building floorspace (square feet)										
1,001 to 5,000	2,833	2,635	2,631	1,123	242	Q	Q	358	Q	76
5,001 to 10,000	1,359	1,290	1,288	679	104	Q	Q	140	Q	71
10,001 to 25,000	981	949	949	595	107	Q	Q	110	29	Q
25,001 to 50,000	386	385	385	291	48	10	8	35	10	Q
50,001 to 100,000	218	217	217	171	39	15	11	19	5	Q
100,001 to 200,000	93	93	93	75	23	7	6	8	5	Q
200,001 to 500,000	40	40	40	33	14	5	3	4	2	Q
Over 500,000	9	9	9	7	5	2	1	1	1	Q
Principal building activity										
Education	437	437	437	216	34	39	29	51	14	Q
Food sales	163	163	163	90	Q	N	N	Q	Q	Q
Food service	286	286	286	203	Q	Q	Q	48	Q	Q
Health care	137	137	137	77	20	2	2	6	Q	Q
Inpatient	9	9	9	7	8	1	1	Q	Q	Q
Outpatient	129	129	129	70	13	Q	Q	Q	Q	Q
Lodging	207	207	207	138	32	9	3	26	Q	Q
Mercantile	517	517	513	328	29	Q	N	51	10	Q
Retail (other than mall)	350	350	346	172	25	Q	N	Q	Q	Q
Enclosed and strip malls	167	167	167	156	Q	N	N	20	Q	Q
Office	970	970	970	549	102	10	7	59	17	Q
Public assembly	488	488	488	275	44	13	8	75	16	Q
Public order and safety	81	81	81	54	29	Q	Q	Q	Q	N
Religious worship	439	439	439	259	32	Q	Q	96	Q	Q
Service	867	866	866	382	153	Q	N	107	Q	94
Warehouse and storage	1,004	794	792	320	52	Q	Q	83	Q	Q
Other	113	108	108	53	18	3	2	Q	Q	Q
Vacant	208	124	124	30	Q	Q	Q	Q	Q	N
Year constructed										
Before 1920	329	323	323	184	54	Q	Q	49	Q	Q
1920 to 1945	379	368	368	172	52	11	3	65	Q	Q
1946 to 1959	517	496	496	310	56	20	Q	52	Q	Q
1960 to 1969	685	673	673	420	57	14	10	61	19	Q
1970 to 1979	831	787	787	400	87	8	6	115	Q	25
1980 to 1989	794	752	752	372	69	6	4	85	21	Q
1990 to 1999	921	844	844	412	73	8	10	113	14	Q
2000 to 2009	924	860	860	454	94	6	6	91	21	Q
2010 to 2018	537	514	508	250	41	4	4	45	11	Q

Table B19. Energy sources, number of buildings, 2018

Number of buildings (thousand)

	Energy sources used (more than one may apply)									
	All buildings	Buildings using any energy source	Electricity	Natural gas	Fuel oil	District heat	District chilled water	Propane	Solar	Wood, coal, and other
All buildings	5,918	5,619	5,613	2,974	583	86	55	676	99	180
Census region and division										
Northeast	793	773	769	373	230	29	5	157	20	47
New England	275	274	274	65	103	16	Q	101	9	Q
Middle Atlantic	518	500	496	308	127	13	3	56	11	Q
Midwest	1,719	1,647	1,647	982	120	15	3	225	14	61
East North Central	1,110	1,074	1,074	712	69	10	3	86	4	37
West North Central	609	573	573	270	Q	Q	Q	139	Q	Q
South	2,143	2,011	2,011	894	144	25	33	219	12	45
South Atlantic	1,034	987	987	361	83	Q	18	138	5	27
East South Central	347	313	313	200	18	Q	Q	25	Q	Q
West South Central	762	711	711	333	42	8	11	56	Q	Q
West	1,264	1,188	1,186	725	89	17	14	75	53	26
Mountain	484	431	431	292	45	3	2	18	Q	Q
Pacific	780	757	755	433	44	14	12	57	47	Q
Climate zone^a										
Cold or very cold	539	513	511	249	65	9	Q	135	Q	Q
Cool	1,727	1,648	1,644	972	239	22	5	225	15	85
Mixed mild	1,216	1,169	1,169	634	146	26	13	140	26	24
Warm	1,606	1,495	1,495	869	86	25	23	105	31	38
Hot or very hot	831	794	794	251	48	4	13	71	22	Q
Number of workers (main shift)										
Fewer than 5	3,270	2,974	2,968	1,264	299	Q	Q	391	35	114
5 to 9	1,116	1,113	1,113	635	77	15	Q	117	Q	Q
10 to 19	713	713	713	470	60	15	Q	100	Q	Q
20 to 49	492	492	492	365	65	12	9	46	17	19
50 to 99	201	201	201	138	38	8	9	14	9	Q
100 to 249	90	90	90	75	23	5	4	5	5	Q
250 or more	37	37	37	27	20	6	4	2	2	Q
Weekly operating hours										
Fewer than 40	1,370	1,237	1,233	551	104	Q	Q	194	Q	Q
40 to 48	1,483	1,473	1,473	756	161	13	7	128	24	46
49 to 60	1,250	1,231	1,231	681	116	25	16	148	22	52
61 to 84	645	618	618	396	64	19	15	56	11	27
85 to 167	465	421	421	255	26	6	4	55	10	Q
Open continuously	705	639	637	335	112	15	7	93	23	16
Ownership and occupancy										
Nongovernment owned	4,982	4,699	4,693	2,502	442	53	25	596	62	172
Owner occupied	3,249	3,110	3,104	1,637	337	48	23	434	44	143
Leased to tenant or tenants	1,581	1,511	1,511	844	105	Q	2	140	18	29
Unoccupied	152	78	78	Q	Q	Q	Q	Q	Q	N
Government owned	937	920	920	471	140	34	30	79	37	Q
Federal	70	70	70	20	6	Q	0	Q	Q	Q
State	256	246	246	139	37	26	26	17	10	Q
Local	610	603	603	312	98	5	4	42	26	Q

Table B19. Energy sources, number of buildings, 2018

Number of buildings (thousand)

	Energy sources used (more than one may apply)									
	All buildings	Buildings using any energy source	Electricity	Natural gas	Fuel oil	District heat	District chilled water	Propane	Solar	Wood, coal, and other
All buildings	5,918	5,619	5,613	2,974	583	86	55	676	99	180
Energy sources (more than one may apply)										
Electricity	5,613	5,613	5,613	2,974	583	86	55	671	97	180
Natural gas	2,974	2,974	2,974	2,974	217	38	31	106	68	76
Fuel oil	583	583	583	217	583	14	7	83	4	41
District heat	86	86	86	38	14	86	40	Q	5	Q
District chilled water	55	55	55	31	7	40	55	Q	3	Q
Propane	676	676	671	106	83	Q	Q	676	9	41
Solar	99	99	97	68	4	5	3	9	99	Q
Wood, coal, and other	180	180	180	76	41	Q	Q	41	Q	180
Energy end uses (more than one may apply)										
Buildings with space heating	4,901	4,901	4,901	2,933	561	85	49	621	84	178
Buildings with cooling	4,631	4,631	4,631	2,728	455	74	55	526	95	122
Buildings with water heating	4,595	4,595	4,590	2,786	501	84	51	564	88	129
Buildings with cooking	1,738	1,738	1,738	1,168	199	19	10	285	52	34
Buildings with manufacturing	322	322	322	187	52	1	Q	48	Q	Q
Buildings with electricity generation	706	706	704	462	343	20	14	98	94	68
Buildings with lighting	5,503	5,503	5,503	2,952	583	86	55	665	97	180
Food preparation or serving areas in non-food service buildings (more than one may apply)										
Snack bar, concession stand, or coffee shop	144	144	144	104	19	4	3	17	10	Q
Fast food or small restaurant	160	160	160	120	20	3	1	19	11	Q
Cafeteria or large restaurant	129	129	129	103	27	4	3	19	6	Q
Commercial or kitchen food preparation area	284	284	284	234	46	5	4	49	11	6
Small kitchen area	1,018	1,018	1,018	625	119	10	6	170	28	Q

Data source: U.S. Energy Information Administration, Form EIA-871A of the 2018 Commercial Buildings Energy Consumption Survey

Notes: Because of rounding, data may not sum to totals. The *Guide to the 2018 CBECS Tables* and *CBECS Terminology* contain definitions of terms used in these tables and comparisons between previous CBECS tables. You can access both references from <http://www.eia.gov/consumption/commercial/data/2018/>.

Data are sample survey estimates with relative standard errors published in a tab on the Excel worksheet for this table.

^aClimate zones are based on ASHRAE Standard 169-2021; see <https://www.eia.gov/consumption/commercial/maps.php#defined>.

Q = Data withheld either because the relative standard error was greater than 50% or the reporting sample had fewer than 20 buildings.

N = No buildings in reporting sample.

Relative standard errors (RSEs) for Table B19. Energy sources, number of buildings, 2018

RSEs for number of buildings

	Energy sources used (more than one may apply)									
	All buildings	Buildings using any energy source	Electricity	Natural gas	Fuel oil	District heat	District chilled water	Propane	Solar	Wood, coal, and other
All buildings	3.9	3.9	3.9	4.8	9.7	14.7	20.1	10.0	15.5	17.3
Building floorspace (square feet)										
1,001 to 5,000	4.9	5.2	5.2	7.7	14.5	80.7	62.9	13.7	39.5	27.3
5,001 to 10,000	5.9	5.8	5.8	8.1	28.2	40.2	70.7	17.2	34.4	29.0
10,001 to 25,000	5.6	5.6	5.6	6.7	14.3	29.6	32.2	18.7	26.8	30.9
25,001 to 50,000	5.6	5.6	5.6	6.5	14.5	27.8	33.6	17.7	25.4	38.5
50,001 to 100,000	5.3	5.3	5.3	5.6	8.9	19.7	27.5	15.5	21.6	42.6
100,001 to 200,000	5.6	5.6	5.6	6.3	9.4	24.1	26.6	14.2	18.0	38.4
200,001 to 500,000	5.0	5.0	5.0	5.6	7.3	20.2	22.1	12.0	15.6	37.7
Over 500,000	7.8	7.8	7.8	8.3	9.6	13.1	20.8	24.0	23.0	50.5
Principal building activity										
Education	7.8	7.8	7.8	10.9	21.0	24.5	28.1	26.3	34.2	82.3
Food sales	14.3	14.3	14.3	19.6	40.9	0.0	0.0	39.2	76.6	73.7
Food service	7.7	7.7	7.7	8.9	36.6	79.3	101.1	17.4	69.2	60.7
Health care	9.8	9.8	9.8	14.3	17.2	34.0	43.4	44.9	80.4	71.9
Inpatient	19.4	19.4	19.4	14.9	20.8	20.1	27.1	53.4	53.5	56.6
Outpatient	10.3	10.3	10.3	15.3	23.3	67.7	72.8	55.2	81.6	73.1
Lodging	9.4	9.4	9.4	11.9	23.3	30.6	39.5	25.5	62.5	98.3
Mercantile	7.3	7.3	7.3	8.7	23.0	70.4	0.0	23.2	33.8	34.3
Retail (other than mall)	10.1	10.1	10.0	14.1	25.9	70.4	0.0	31.3	64.2	59.0
Enclosed and strip malls	7.6	7.6	7.6	8.7	55.1	0.0	0.0	48.7	39.5	48.3
Office	7.2	7.2	7.2	8.0	19.1	27.0	28.9	23.8	26.8	71.8
Public assembly	9.1	9.1	9.1	10.6	28.9	28.9	33.5	24.3	36.1	61.6
Public order and safety	20.2	20.2	20.2	22.0	24.7	54.0	48.8	47.3	69.6	0.0
Religious worship	9.5	9.5	9.5	12.1	28.7	110.3	93.8	18.6	2.8	52.2
Service	7.4	7.4	7.4	9.8	21.2	74.4	0.0	24.1	87.8	24.4
Warehouse and storage	7.4	7.6	7.7	9.3	25.6	69.7	45.5	17.6	59.1	42.2
Other	17.1	17.5	17.5	28.2	32.6	46.6	37.2	34.0	86.1	111.6
Vacant	17.2	20.9	20.9	25.8	52.2	84.7	99.4	53.4	2.7	0.0
Year constructed										
Before 1920	12.8	12.9	12.9	15.2	23.7	55.0	52.1	26.7	65.8	53.0
1920 to 1945	10.7	10.9	10.9	12.8	22.3	39.0	44.5	29.3	59.5	77.6
1946 to 1959	8.1	8.1	8.1	11.3	21.6	34.5	64.7	22.7	47.5	39.0
1960 to 1969	6.4	6.2	6.2	7.5	24.2	36.4	48.0	21.8	33.4	52.3
1970 to 1979	7.4	7.2	7.2	9.4	28.2	32.4	33.7	22.8	51.0	35.2
1980 to 1989	7.0	6.7	6.7	7.6	17.9	33.9	31.4	25.3	31.7	41.6
1990 to 1999	7.5	7.2	7.2	9.4	20.8	36.6	39.3	18.7	47.5	38.5
2000 to 2009	8.0	8.4	8.4	9.1	23.6	28.3	33.7	19.2	35.6	50.6
2010 to 2018	11.0	11.0	11.1	11.3	25.7	32.8	33.3	24.3	28.8	42.3

Relative standard errors (RSEs) for Table B19. Energy sources, number of buildings, 2018

RSEs for number of buildings

	Energy sources used (more than one may apply)									
	All buildings	Buildings using any energy source	Electricity	Natural gas	Fuel oil	District heat	District chilled water	Propane	Solar	Wood, coal, and other
All buildings	3.9	3.9	3.9	4.8	9.7	14.7	20.1	10.0	15.5	17.3
Census region and division										
Northeast	9.9	9.5	9.8	10.5	15.2	23.2	34.2	17.1	32.1	30.6
New England	17.8	17.7	17.7	16.1	20.9	35.8	52.3	24.5	42.1	45.6
Middle Atlantic	12.0	11.2	11.8	12.1	21.8	27.8	45.4	21.2	46.5	40.0
Midwest	10.9	10.8	10.8	12.0	33.2	29.3	35.1	21.3	34.8	35.9
East North Central	13.1	12.8	12.8	13.3	22.4	33.3	38.1	28.4	28.1	42.6
West North Central	21.0	21.2	21.2	28.5	72.4	54.5	54.1	29.8	46.1	63.9
South	7.7	7.6	7.6	7.1	12.8	35.2	30.8	18.5	43.4	24.5
South Atlantic	11.0	10.9	10.9	8.8	12.8	54.9	46.3	23.9	46.1	25.0
East South Central	18.0	15.9	15.9	22.3	19.4	74.3	66.3	25.2	106.2	63.2
West South Central	14.7	14.7	14.7	9.1	36.0	49.4	49.1	41.2	70.5	77.6
West	8.1	7.8	7.8	11.6	14.7	26.8	31.2	21.9	22.4	38.6
Mountain	15.9	15.9	15.9	18.5	26.9	47.5	34.4	39.5	51.8	41.1
Pacific	9.0	8.6	8.6	15.2	13.2	31.3	35.2	25.3	24.4	51.2
Climate zone^a										
Cold or very cold	18.8	20.4	20.4	27.9	26.3	47.6	47.7	27.1	52.8	61.0
Cool	11.8	11.5	11.6	12.0	20.4	31.4	29.0	19.0	35.5	27.8
Mixed mild	15.1	15.4	15.4	16.0	19.5	24.8	42.4	26.7	33.0	31.5
Warm	11.4	11.1	11.1	12.2	17.8	35.3	38.6	20.2	27.0	29.8
Hot or very hot	18.8	17.4	17.4	21.4	21.1	31.0	29.3	25.3	37.0	63.9
Number of workers (main shift)										
Fewer than 5	5.5	5.6	5.6	7.5	15.6	31.8	39.9	12.8	26.6	22.4
5 to 9	6.1	6.1	6.1	8.2	15.6	34.5	56.8	16.8	45.9	27.1
10 to 19	6.5	6.5	6.5	7.2	21.4	38.4	50.6	19.8	41.1	76.0
20 to 49	6.3	6.3	6.3	8.1	13.5	22.6	28.0	19.3	29.6	29.1
50 to 99	6.7	6.7	6.7	7.0	13.5	27.4	27.8	15.9	29.4	37.7
100 to 249	7.1	7.1	7.1	7.9	10.6	21.3	25.2	16.5	24.1	44.9
250 or more	7.2	7.2	7.2	7.5	8.8	20.8	27.4	24.4	21.0	34.3
Weekly operating hours										
Fewer than 40	6.1	6.4	6.5	9.7	17.8	43.3	51.1	14.8	73.7	53.2
40 to 48	6.2	6.2	6.2	8.1	18.6	36.5	34.5	17.1	31.8	33.8
49 to 60	5.2	5.4	5.4	6.8	15.5	31.8	37.9	18.7	26.3	24.7
61 to 84	7.6	7.4	7.4	8.9	21.7	34.4	46.4	21.4	35.5	35.6
85 to 167	8.6	7.4	7.4	8.7	22.1	21.6	25.0	19.2	37.4	37.5
Open continuously	8.1	8.2	8.2	9.1	12.7	21.5	28.2	20.1	36.5	49.6
Ownership and occupancy										
Nongovernment owned	3.8	3.6	3.7	4.8	10.6	19.3	35.7	9.3	18.2	17.7
Owner occupied	4.3	4.2	4.2	5.4	11.5	20.2	37.5	10.2	22.0	20.1
Leased to tenant or tenants	5.5	5.4	5.4	6.7	14.1	52.2	39.1	15.1	32.2	34.4
Unoccupied	20.3	25.1	25.1	33.0	58.6	51.6	101.1	61.5	2.7	0.0
Government owned	9.5	9.6	9.6	10.7	15.3	22.3	23.0	24.7	26.1	56.0
Federal	26.0	26.0	26.0	25.6	38.7	73.1	37.3	58.4	69.9	88.1
State	12.9	13.0	13.0	16.5	27.7	27.2	26.7	35.8	49.4	69.7
Local	10.1	10.2	10.2	11.5	18.0	33.2	31.4	29.5	29.0	59.4

Relative standard errors (RSEs) for Table B19. Energy sources, number of buildings, 2018

RSEs for number of buildings

	Energy sources used (more than one may apply)									
	All buildings	Buildings using any energy source	Electricity	Natural gas	Fuel oil	District heat	District chilled water	Propane	Solar	Wood, coal, and other
All buildings	3.9	3.9	3.9	4.8	9.7	14.7	20.1	10.0	15.5	17.3
Energy sources (more than one may apply)										
Electricity	3.9	3.9	3.9	4.8	9.7	14.7	20.1	10.1	15.9	17.3
Natural gas	4.8	4.8	4.8	4.8	13.1	18.5	23.3	16.7	18.0	25.5
Fuel oil	9.7	9.7	9.7	13.1	9.7	19.3	23.9	21.6	27.9	47.2
District heat	14.7	14.7	14.7	18.5	19.3	14.7	21.9	61.8	35.0	109.6
District chilled water	20.1	20.1	20.1	23.3	23.9	21.9	20.1	59.5	35.2	55.7
Propane	10.0	10.0	10.1	16.7	21.6	61.8	59.5	10.0	33.7	30.6
Solar	15.5	15.5	15.9	18.0	27.9	35.0	35.2	33.7	15.5	86.4
Wood, coal, and other	17.3	17.3	17.3	25.5	47.2	109.6	55.7	30.6	86.4	17.3
Energy end uses (more than one may apply)										
Buildings with space heating	4.1	4.1	4.1	4.9	10.1	15.1	21.9	10.6	16.7	17.4
Buildings with cooling	3.9	3.9	3.9	4.5	8.6	15.7	20.1	10.2	15.9	16.4
Buildings with water heating	3.9	3.9	3.9	4.8	8.3	14.6	20.9	9.7	16.7	16.5
Buildings with cooking	5.0	5.0	5.0	5.2	11.4	20.1	24.0	12.2	21.5	29.7
Buildings with manufacturing	11.3	11.3	11.3	13.6	29.4	27.5	29.8	22.4	39.3	50.8
Buildings with electricity generation	7.4	7.4	7.3	7.8	12.5	16.0	20.0	16.4	15.4	21.6
Buildings with lighting	3.9	3.9	3.9	4.8	9.7	14.7	20.1	10.2	15.9	17.3
Food preparation or serving areas in non-food service buildings (more than one may apply)										
Snack bar, concession stand, or coffee shop	11.0	11.0	11.0	11.4	12.2	19.8	21.5	30.8	47.9	59.3
Fast food or small restaurant	9.4	9.4	9.4	10.6	22.4	48.1	26.4	26.0	49.2	48.9
Cafeteria or large restaurant	7.7	7.7	7.7	9.5	11.1	20.5	22.9	26.4	22.9	49.9
Commercial or kitchen food preparation area	8.5	8.5	8.5	9.4	13.6	16.4	18.8	18.0	29.4	33.7
Small kitchen area	6.5	6.5	6.5	8.2	15.8	28.1	32.8	16.0	33.6	52.6

Data source: U.S. Energy Information Administration, Form EIA-871A of the 2018 Commercial Buildings Energy Consumption Survey

Note: RSE is a measure of the reliability or precision of a survey statistic. Variability occurs in survey statistics because the different samples that could be drawn would each produce different values for the survey statistics. *Estimation of Standard Errors* and *What is a Relative Standard Error (RSE)?* contain more information on how RSEs are estimated and used. Both references can be accessed from <https://www.eia.gov/consumption/commercial/survey-background-technical-information.php>.

^aClimate zones are based on ASHRAE Standard 169-2021; see <https://www.eia.gov/consumption/commercial/maps.php#defined>.