

Release date: September 2021

Revised date: December 2022

Table B7. Building size, floorspace, 2018

Total floorspace (million square feet)

	All buildings	Building size							
		1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	96,423	8,025	10,204	15,838	13,957	15,302	13,003	11,776	8,317
Principal building activity									
Education	13,623	396	761	1,224	1,510	4,018	3,321	2,157	236
Food sales	1,006	265	Q	Q	Q	Q	Q	Q	N
Food service	1,385	549	610	Q	Q	Q	Q	N	N
Health care	4,018	171	253	374	327	494	399	799	1,201
Inpatient	2,259	N	N	Q	Q	Q	176	715	1,168
Outpatient	1,760	171	253	354	286	356	223	84	Q
Lodging	6,976	Q	Q	653	1,483	1,569	1,378	788	727
Mercantile	10,781	534	804	2,181	1,736	1,752	1,854	1,325	596
Retail (other than mall)	5,193	458	597	1,250	807	578	938	564	N
Enclosed and strip malls	5,588	Q	Q	930	930	1,174	915	761	596
Office	16,662	1,380	1,446	2,172	1,899	2,380	2,412	2,541	2,432
Public assembly	7,192	655	886	1,545	1,514	1,024	470	416	683
Public order and safety	1,538	Q	Q	Q	Q	Q	Q	322	Q
Religious worship	5,471	463	825	2,028	1,383	595	Q	Q	N
Service	6,240	1,428	1,644	1,505	846	569	Q	Q	Q
Warehouse and storage	17,483	1,409	1,885	3,049	2,199	2,254	2,056	2,588	2,043
Other	2,435	Q	Q	Q	Q	Q	444	490	Q
Vacant	1,612	340	Q	Q	Q	Q	Q	Q	Q
Year constructed									
Before 1920	3,600	571	491	741	673	381	425	243	Q
1920 to 1945	5,646	558	599	981	489	866	620	653	881
1946 to 1959	6,937	748	808	1,325	953	1,339	977	612	Q
1960 to 1969	10,360	919	1,288	1,797	1,698	1,257	1,058	1,478	864
1970 to 1979	13,061	1,088	1,536	2,029	1,954	1,926	1,573	1,697	1,258
1980 to 1989	13,465	1,067	1,509	1,844	1,928	2,263	1,774	1,649	1,431
1990 to 1999	15,535	1,167	1,559	2,782	2,734	2,259	2,192	1,663	1,179
2000 to 2009	17,500	1,183	1,318	3,272	2,212	3,168	2,570	2,242	1,535
2010 to 2018	10,319	725	1,097	1,068	1,315	1,842	1,813	1,538	920
Census region									
Northeast	15,951	1,126	1,154	2,371	2,140	2,195	2,659	2,397	1,908
Midwest	25,932	2,269	3,021	4,469	4,064	3,942	2,759	3,062	2,347
South	34,907	2,979	3,542	5,656	4,716	6,312	4,999	4,203	2,500
West	19,633	1,651	2,488	3,342	3,036	2,853	2,586	2,115	1,562
Climate zone^a									
Cold or very cold	7,044	768	813	1,619	1,036	984	870	701	Q
Cool	26,768	2,451	3,111	4,273	4,770	3,950	3,162	3,254	1,797
Mixed mild	25,096	1,581	1,844	3,180	3,051	3,893	4,045	3,640	3,863
Warm	25,085	2,027	3,039	4,553	3,579	4,352	3,320	2,863	1,351
Hot or very hot	12,429	1,198	1,397	2,213	1,521	2,123	1,605	1,319	1,054

Table B7. Building size, floorspace, 2018

Total floorspace (million square feet)

	All buildings	Building size							
		1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	96,423	8,025	10,204	15,838	13,957	15,302	13,003	11,776	8,317
Number of floors									
1	43,576	6,107	7,414	9,371	6,163	6,052	4,027	3,168	1,274
2	23,300	1,518	2,297	4,794	4,357	3,902	3,541	1,884	1,006
3	10,516	370	432	1,306	2,477	2,472	1,348	1,420	691
4 to 9	13,031	Q	Q	368	960	2,723	3,404	3,384	2,102
10 or more	6,000	N	N	N	N	Q	682	1,920	3,244
Elevators and escalators (more than one may apply)									
Any elevators	36,501	Q	341	2,520	4,418	6,912	7,423	8,088	6,764
1 elevator	14,215	Q	330	2,436	3,539	3,575	2,615	1,215	470
2 to 5 elevators	13,316	N	Q	Q	879	3,336	4,519	3,898	588
6 or more elevators	8,970	N	N	N	N	Q	289	2,974	5,706
Any escalators	3,753	Q	N	Q	Q	Q	Q	561	2,917
Number of workers (main shift)									
Fewer than 5	21,065	5,655	5,550	5,645	2,727	949	Q	304	Q
5 to 9	10,323	1,727	2,274	3,165	1,651	688	616	Q	N
10 to 19	11,348	555	1,546	3,362	3,044	1,681	711	405	Q
20 to 49	16,132	Q	772	2,818	3,981	4,886	2,411	1,004	Q
50 to 99	12,961	N	Q	842	1,877	4,472	3,548	1,628	532
100 to 249	12,442	N	N	Q	654	2,243	3,672	4,428	1,440
250 or more	12,152	N	N	N	Q	384	1,855	3,805	6,084
Weekly operating hours									
Fewer than 40	10,766	2,213	2,262	2,797	1,324	1,000	492	462	Q
40 to 48	18,826	2,013	2,864	4,159	2,761	3,151	2,233	1,401	Q
49 to 60	22,845	1,613	2,009	4,121	3,617	4,397	3,436	2,544	1,107
61 to 84	14,736	760	1,235	1,919	2,096	2,252	2,418	2,355	1,702
85 to 167	10,038	617	780	814	1,640	1,903	1,640	1,431	1,213
Open continuously	19,213	809	1,055	2,029	2,518	2,599	2,783	3,584	3,835
Ownership and occupancy									
Nongovernment owned	74,728	6,785	8,799	13,682	11,612	10,026	8,889	8,397	6,538
Owner occupied	45,355	4,505	5,966	8,912	7,483	5,716	4,856	3,823	4,094
Leased to tenant or tenants	28,382	2,022	2,537	4,701	4,029	4,193	3,980	4,493	2,427
Unoccupied	990	258	Q	Q	Q	Q	Q	Q	Q
Government owned	21,695	1,240	1,406	2,157	2,345	5,276	4,113	3,379	1,779
Federal	1,946	Q	Q	Q	Q	Q	Q	258	624
State	6,888	324	Q	520	681	1,957	1,237	1,178	593
Local	12,861	820	941	1,501	1,373	3,065	2,656	1,943	562
Party responsible for operation of energy systems									
Building owner	79,282	6,610	8,645	12,427	11,196	12,901	10,908	9,972	6,623
Business owner or tenant	12,842	1,082	1,353	2,668	2,149	1,727	1,407	1,376	1,082
Property management	1,994	Q	Q	Q	Q	315	306	261	Q
Other	2,306	Q	Q	486	315	359	382	168	Q

Table B7. Building size, floorspace, 2018

Total floorspace (million square feet)

	All buildings	Building size							
		1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	96,423	8,025	10,204	15,838	13,957	15,302	13,003	11,776	8,317
Provider of direct input on energy-related equipment purchases									
Building owner	82,862	6,887	9,082	13,504	11,664	13,309	11,253	10,304	6,858
Business owner or tenant	7,585	662	790	1,322	1,331	970	1,011	849	650
Property management	1,072	Q	Q	Q	Q	Q	Q	146	Q
Other	4,904	393	307	832	800	864	584	478	646
Number of establishments									
1	65,391	6,936	8,127	10,999	10,154	10,480	8,603	6,476	3,618
2 to 5	16,431	799	1,559	3,427	2,162	2,415	2,076	2,377	1,617
6 to 10	5,539	N	Q	997	853	1,028	895	1,024	629
11 to 20	3,894	Q	Q	Q	532	887	816	709	557
More than 20	3,999	N	Q	Q	Q	327	529	1,100	1,879
Currently unoccupied	1,168	287	Q	Q	Q	Q	Q	Q	Q
Campus or complex activity									
Not part of a campus or complex	56,609	5,135	5,776	9,024	8,665	8,925	7,993	6,957	4,134
Primary or secondary school	5,106	277	456	804	645	1,195	916	765	Q
College or university	3,761	Q	Q	Q	543	1,062	877	576	Q
Office complex	3,823	171	Q	Q	439	538	822	644	736
Retail complex	4,573	285	Q	777	725	832	686	533	Q
Storage complex	5,684	535	1,023	1,356	Q	563	523	488	Q
Religious campus or complex	3,209	254	645	1,199	612	343	Q	Q	Q
Health care complex	2,838	Q	Q	Q	Q	302	303	625	1,045
Lodging or resort complex	1,575	156	Q	Q	541	Q	Q	Q	Q
Transportation complex	774	Q	Q	Q	Q	Q	Q	Q	Q
Government complex	1,706	207	Q	Q	Q	Q	251	219	Q
Other type of campus or complex	6,765	836	1,010	1,457	941	942	464	613	Q
Predominant exterior wall material									
Brick, stone, or stucco	46,134	2,962	4,411	7,672	7,423	8,538	6,917	5,161	3,050
Concrete (block or poured)	19,357	1,043	1,638	2,865	3,104	3,399	3,208	2,541	1,559
Concrete panels	8,331	Q	Q	502	823	1,351	1,440	2,085	1,905
Siding or shingles	5,992	1,740	1,290	1,141	1,010	Q	Q	198	Q
Metal panels	12,198	1,973	2,490	3,199	1,457	1,148	577	675	679
Window glass	2,192	Q	Q	Q	Q	Q	396	685	673
Other	2,219	182	Q	Q	Q	Q	254	432	Q

Table B7. Building size, floorspace, 2018

Total floorspace (million square feet)

	All buildings	Building size							Over 500,000 square feet
		1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	
All buildings	96,423	8,025	10,204	15,838	13,957	15,302	13,003	11,776	8,317
Predominant roof material									
Metal surfacing	20,936	3,335	4,118	5,650	3,007	2,321	1,077	721	705
Synthetic or rubber	31,563	973	1,227	2,943	4,483	5,876	6,566	5,813	3,681
Built-up	19,308	721	1,182	2,249	2,328	3,866	3,124	3,097	2,740
Slate or tile shingles	3,997	509	655	995	816	420	355	131	Q
Wooden materials (including shingles)	1,568	252	Q	563	Q	Q	Q	Q	Q
Asphalt, fiberglass, or other shingles	14,058	1,954	2,352	3,066	2,400	1,705	1,076	1,120	385
Concrete	1,968	Q	Q	Q	413	Q	350	330	Q
Other	3,026	146	Q	Q	Q	580	415	512	420
Roof tilt									
Flat	54,253	2,136	3,161	5,548	7,297	10,330	9,801	9,343	6,637
Shallow pitch	27,609	3,057	4,415	6,440	4,412	3,535	2,396	2,052	1,302
Steeper pitch	14,561	2,831	2,629	3,851	2,248	1,437	806	380	Q
Cool roof characteristics (more than one may apply)									
White or reflective coating or paint	32,799	1,410	2,008	4,368	4,337	6,036	5,558	5,293	3,790
White or reflective tiles or shingles	2,713	202	Q	Q	505	497	589	241	Q
Aluminum coating	6,149	742	1,070	1,243	1,046	814	605	353	Q
Ballasted roof system	6,277	Q	Q	542	568	1,001	1,045	1,439	1,463
Other cool roof property	1,603	Q	Q	Q	Q	Q	Q	428	494
Renovations since 2000 (more than one may apply)									
Any type of renovation	45,165	2,453	3,455	5,836	6,326	7,293	7,204	7,067	5,531
Addition or annex	10,854	284	625	1,007	1,556	1,618	2,026	1,547	2,190
Reduction in floorspace	1,784	Q	Q	Q	Q	Q	Q	419	656
Roof replacement	20,862	1,009	1,530	2,398	2,582	3,349	3,138	3,819	3,037
Interior wall reconfiguration	21,283	789	1,108	2,283	2,665	3,385	3,129	3,647	4,277
Window replacement	10,977	525	912	1,426	1,148	1,684	1,396	1,556	2,329
HVAC equipment upgrade	27,575	912	2,043	3,178	3,443	4,150	4,401	4,989	4,459
Lighting upgrade	29,098	1,128	1,839	2,826	3,808	4,703	4,438	5,426	4,931
Electrical upgrade	15,761	641	1,127	1,262	1,593	2,198	2,541	2,974	3,423
Plumbing system upgrade	15,537	705	1,101	1,376	1,742	2,146	2,196	3,051	3,219
Insulation upgrade	7,980	439	475	908	662	881	1,403	1,238	1,974
Fire, safety, or security upgrade	19,985	573	787	1,859	2,348	3,366	3,375	4,069	3,606
Structural upgrade	4,203	142	Q	Q	459	388	583	554	1,368
Other	1,168	Q	Q	Q	Q	Q	327	321	Q
No renovations	43,832	5,109	5,928	9,276	6,704	6,667	4,608	3,455	2,085
Buildings constructed 2013 or later	7,426	462	822	727	927	1,342	1,190	1,254	701

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Total floorspace (million square feet)

	All buildings	Building size							
		1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	96,423	8,025	10,204	15,838	13,957	15,302	13,003	11,776	8,317
Energy sources (more than one may apply)									
Electricity	94,844	7,471	9,644	15,464	13,935	15,269	12,983	11,761	8,317
Natural gas	67,722	3,292	5,200	9,523	10,467	11,988	10,516	9,674	7,062
Fuel oil	21,185	726	774	1,827	1,774	2,893	3,266	4,541	5,383
District heat	6,745	Q	Q	Q	390	1,117	952	1,450	2,281
District chilled water	4,288	Q	Q	Q	295	831	757	988	1,155
Propane	10,157	1,047	995	1,700	1,336	1,325	1,198	1,256	1,299
Solar	3,820	Q	Q	467	389	391	675	661	978
Wood, coal, and other	2,113	218	505	Q	Q	Q	Q	Q	Q
Space-heating energy sources (more than one may apply)									
Electricity	45,603	3,267	3,941	7,398	7,443	7,465	6,416	5,431	4,241
Natural gas	58,042	2,830	4,493	8,764	9,055	10,192	9,281	8,190	5,238
Fuel oil	4,134	468	400	630	Q	541	513	615	510
District heat	6,547	Q	Q	Q	384	1,117	950	1,323	2,253
Propane	3,896	722	678	914	516	Q	234	Q	Q
Other sources ^b	927	192	Q	Q	Q	Q	Q	Q	N
Primary space-heating energy source									
Electricity	27,618	2,507	2,850	4,883	4,530	4,905	3,338	2,768	1,836
Natural gas	50,060	2,602	4,322	7,819	7,851	8,201	7,995	7,094	4,175
Fuel oil	2,223	445	Q	560	Q	Q	292	Q	Q
District heat	6,090	Q	Q	Q	346	1,044	873	1,221	2,117
Propane	2,290	638	461	Q	Q	Q	Q	Q	Q
Other sources ^b	380	Q	Q	Q	Q	N	Q	Q	N
Cooling energy sources (more than one may apply)									
Electricity	84,526	5,685	7,718	13,785	12,894	14,245	12,133	10,370	7,696
Natural gas	400	Q	N	N	Q	Q	Q	Q	Q
District chilled water	4,288	Q	Q	Q	295	831	757	988	1,155
Water-heating energy sources (more than one may apply)									
Electricity	47,125	3,699	4,613	8,250	7,325	7,031	6,343	5,699	4,165
Natural gas	46,652	1,873	3,464	6,092	7,083	9,051	7,859	6,862	4,368
Fuel oil	1,807	Q	Q	Q	Q	Q	431	272	340
District heat	4,206	N	Q	Q	Q	628	608	975	1,638
Propane	1,947	167	Q	551	Q	367	Q	Q	Q
Cooking energy sources (more than one may apply)									
Electricity	30,509	1,398	2,187	3,281	4,224	5,220	5,409	4,939	3,851
Natural gas	27,705	621	1,101	2,290	3,252	4,604	5,664	5,539	4,633
Propane	3,101	241	Q	496	Q	630	648	210	Q

Table B7. Building size, floorspace, 2018

Total floorspace (million square feet)

	All buildings	Building size							Over 500,000 square feet
		1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	
All buildings	96,423	8,025	10,204	15,838	13,957	15,302	13,003	11,776	8,317
Energy end uses (more than one may apply)									
Buildings with space heating	88,661	6,322	8,191	14,194	13,237	14,609	12,603	11,304	8,201
Buildings with cooling	87,506	5,704	7,781	13,940	13,151	14,841	12,645	11,129	8,317
Buildings with water heating	87,717	5,721	7,987	13,843	13,137	14,721	12,628	11,542	8,137
Buildings with cooking	43,580	2,020	2,960	4,932	5,778	7,387	7,750	6,950	5,803
Buildings with manufacturing	6,871	392	388	1,096	1,282	1,214	854	781	864
Buildings with electricity generation	29,457	556	1,212	2,478	2,886	4,755	5,180	6,041	6,347
Buildings with lighting	94,103	7,290	9,306	15,445	13,812	15,269	12,956	11,708	8,317
Percentage of floorspace heated									
Not heated	7,762	1,703	2,013	1,644	721	693	400	472	Q
1 to 50%	10,620	928	1,142	2,354	1,227	1,348	1,511	1,228	883
51 to 99%	20,174	943	1,813	2,752	2,994	3,361	2,822	2,810	2,680
100%	57,867	4,451	5,237	9,088	9,015	9,900	8,270	7,267	4,639
Percentage of floorspace cooled									
Not cooled	8,917	2,321	2,424	1,899	807	461	358	647	N
1 to 50%	19,722	1,241	2,288	4,051	2,579	3,100	2,509	2,273	1,680
51 to 99%	26,277	1,000	1,792	3,074	3,747	4,741	4,249	3,944	3,730
100%	41,507	3,463	3,701	6,815	6,824	7,000	5,886	4,911	2,907
Percentage lit when open									
0%	Q	Q	Q	N	Q	N	Q	Q	N
1 to 50%	14,172	1,857	2,610	4,104	2,124	1,337	887	648	604
51 to 99%	38,847	1,960	2,874	5,866	5,777	6,844	5,936	5,869	3,720
100%	39,877	3,201	3,483	5,348	5,783	6,922	6,072	5,091	3,976
Building never open or electricity not used	2,998	927	960	Q	Q	Q	Q	Q	Q
Percentage lit during off hours									
0%	15,578	3,370	3,885	3,889	2,241	1,115	553	488	Q
1 to 50%	69,800	3,748	5,403	10,855	10,370	12,735	10,804	9,287	6,597
51 to 100%	7,243	283	Q	622	882	1,127	1,258	1,488	1,307
Building always open with no off hours	2,223	Q	Q	Q	Q	292	368	498	376
Electricity not used	1,579	554	Q	Q	Q	Q	Q	Q	N

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	All buildings	Building size							
		1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	96,423	8,025	10,204	15,838	13,957	15,302	13,003	11,776	8,317
Heating equipment (more than one may apply)									
Packaged heating units	48,064	2,511	3,648	6,773	8,523	8,565	7,676	6,190	4,176
Furnaces	17,272	2,428	2,813	4,346	2,702	2,214	1,618	938	Q
Individual space heaters	21,122	1,469	2,062	3,747	3,682	3,248	2,509	2,511	1,894
Boilers	28,831	511	862	2,724	4,013	6,097	6,043	5,093	3,488
Heat pumps	15,110	752	1,049	2,344	1,965	2,544	2,293	2,468	1,694
District heat	6,547	Q	Q	Q	384	1,117	950	1,323	2,253
Duct reheat	7,418	Q	Q	469	696	1,230	1,336	1,692	1,763
Other	821	N	Q	Q	Q	Q	Q	Q	Q
Cooling equipment (more than one may apply)									
Packaged air-conditioning units	56,290	2,666	4,659	8,465	9,766	10,185	8,736	6,971	4,841
Residential-type central air conditioners	18,270	1,920	2,008	3,873	2,603	2,887	1,920	1,845	1,214
Individual air conditioners	13,619	954	1,074	2,071	1,888	2,356	2,450	1,604	1,219
Central chillers	17,926	Q	Q	718	1,398	3,069	3,805	4,758	4,000
Heat pumps	11,098	485	821	1,888	1,001	1,918	1,648	1,692	1,644
District chilled water	4,288	Q	Q	Q	295	831	757	988	1,155
Swamp coolers	2,070	Q	Q	Q	Q	403	231	326	Q
Other	Q	Q	N	Q	Q	N	Q	Q	Q
HVAC features (more than one may apply)									
Economizer cycle	34,087	427	996	3,005	4,138	6,140	6,717	6,652	6,013
Variable air volume (VAV) system	29,268	525	1,215	2,265	2,648	5,223	5,636	5,957	5,798
Dedicated outside air system (DOAS)	9,027	237	346	844	986	1,472	1,475	1,714	1,953
Demand controlled ventilation (DCV)	10,474	345	607	1,087	1,439	1,782	1,392	1,985	1,838
Regular HVAC maintenance	78,015	4,098	6,216	11,594	10,956	13,779	12,113	11,061	8,196
Building automation system (BAS) controls heating or cooling	40,462	759	1,158	3,580	4,310	7,455	8,465	7,915	6,818
Internet-connected or smart thermostat	5,966	335	663	1,124	990	1,031	950	437	Q
Programmable thermostat	20,882	2,043	2,976	4,505	4,257	3,249	1,438	1,738	675
Main equipment replaced since 2000 (more than one may apply)									
Heating	32,451	2,167	3,811	5,758	5,471	4,643	4,436	4,015	2,151
Cooling	23,013	1,496	2,168	4,291	2,927	3,225	3,260	3,047	2,599
Water-heating equipment									
Centralized system	59,280	4,544	6,339	10,549	9,593	10,093	8,155	6,498	3,508
Distributed system	14,307	957	1,305	2,290	2,112	2,483	1,597	2,099	1,464
Combination of centralized and distributed systems	14,129	220	344	1,004	1,432	2,144	2,875	2,945	3,165

Table B7. Building size, floorspace, 2018

Total floorspace (million square feet)

	All buildings	Building size							
		1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	96,423	8,025	10,204	15,838	13,957	15,302	13,003	11,776	8,317
Generation technologies (more than one may apply)									
Reciprocating engine generators	25,163	458	1,020	1,894	2,337	4,161	4,264	5,211	5,818
Solar panels	3,750	Q	Q	456	389	391	662	637	978
Other generation technology	2,055	Q	Q	Q	Q	Q	532	439	360
Lighting equipment types (more than one may apply)									
Incandescent	21,081	1,408	1,996	2,897	2,859	3,463	2,895	3,076	2,487
Standard fluorescent	72,912	5,262	6,657	11,798	10,623	12,052	10,197	9,202	7,121
Compact fluorescent	33,691	1,141	1,807	3,695	4,279	5,869	5,711	6,164	5,024
High-intensity discharge	11,356	Q	Q	973	1,093	1,912	2,023	2,385	2,421
Halogen	15,012	527	1,021	1,946	2,151	2,306	2,126	2,789	2,147
LED	61,849	2,850	4,128	8,614	8,686	10,901	9,520	9,651	7,499
Other	Q	Q	N	Q	N	Q	Q	Q	N
Refrigeration equipment (more than one may apply)									
Any refrigeration	77,589	4,913	6,273	11,252	11,606	13,172	11,772	10,645	7,956
Walk-in units	29,384	682	1,055	1,530	2,597	5,652	6,270	6,383	5,216
Cases or cabinets	28,517	812	1,317	2,282	2,931	5,034	5,591	5,679	4,870
Large cold storage areas	3,592	Q	Q	Q	Q	682	629	540	1,195
Commercial ice makers	34,672	807	1,188	2,824	3,933	6,429	6,706	6,737	6,048
Residential-type or compact units	64,735	4,309	5,210	10,051	10,311	10,450	9,238	8,433	6,732
Vending machines	42,071	510	741	3,259	4,990	8,234	8,648	8,616	7,073
No refrigeration	18,834	3,112	3,931	4,587	2,352	2,130	1,230	1,131	Q
Office equipment (more than one may apply)									
Desktop computers	82,012	4,350	6,881	12,400	12,530	14,338	12,360	11,216	7,938
With multiple monitors	50,844	1,482	2,179	5,476	6,580	9,824	8,710	9,405	7,189
Laptop computers	69,375	2,803	5,040	9,519	10,116	12,471	11,135	10,737	7,555
Dedicated servers	51,595	1,085	2,154	5,249	7,263	10,335	9,099	9,305	7,105
Tablets charged in building	48,778	1,512	2,483	5,840	5,980	9,521	9,039	8,330	6,073
Large floor-standing office devices ^c	54,088	976	2,312	5,799	7,758	10,723	9,806	9,342	7,372
Smaller desktop office devices ^c	74,467	4,306	5,786	11,602	11,094	12,609	11,104	10,402	7,564
Interactive whiteboards	16,939	Q	Q	919	1,510	3,908	3,740	3,484	2,964
Televisions or video displays	63,618	2,632	4,012	8,311	9,157	11,467	11,052	9,500	7,488
Point-of-sale devices or cash registers	33,606	1,832	2,086	3,553	4,325	5,422	5,662	5,825	4,900

Table B7. Building size, floorspace, 2018

Total floorspace (million square feet)

	All buildings	Building size							
		1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	96,423	8,025	10,204	15,838	13,957	15,302	13,003	11,776	8,317
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar, concession stand, or coffee shop	10,361	Q	Q	449	822	1,322	1,769	2,343	3,445
Fast food or small restaurant	9,759	118	Q	493	856	1,129	1,813	2,069	3,085
Cafeteria or large restaurant food preparation area	14,531	N	Q	Q	901	2,728	3,105	3,484	3,944
Small kitchen area	17,698	Q	Q	1,407	1,675	3,163	3,819	3,975	3,343
20,519	1,279	1,921	2,849	3,217	3,011	2,968	2,372	2,902	
Separate computer areas (more than one may apply)									
Server closet	48,722	915	1,992	4,249	6,701	10,384	9,289	8,742	6,450
Data center	11,383	Q	Q	Q	476	1,192	2,046	3,205	3,877
Computer-based training room	16,556	Q	Q	872	1,244	3,241	3,499	3,679	3,738
Student or public computer center	12,527	Q	Q	763	1,242	2,937	3,025	2,871	1,274
Window and interior lighting features (more than one may apply)									
Multipaned windows	72,694	4,109	5,995	11,470	10,573	12,719	11,098	9,380	7,350
Tinted window glass	44,363	1,576	2,884	6,298	5,880	7,837	6,884	7,243	5,761
Reflective window glass	17,929	354	809	2,311	2,211	2,920	3,313	3,258	2,753
External overhangs or awnings	28,718	2,019	2,328	4,702	4,462	5,047	3,815	3,633	2,713
Skylights or atriums	19,815	492	773	2,007	2,279	2,695	3,111	4,278	4,180
Light scheduling	33,552	809	1,334	3,352	3,899	6,011	6,615	6,100	5,432
Occupancy sensors	44,304	604	1,524	4,109	4,886	8,677	8,530	8,863	7,112
Multilevel lighting or dimming	14,424	236	606	1,015	1,267	2,519	2,472	3,329	2,979
Daylight harvesting	7,244	Q	Q	532	535	843	1,249	1,967	1,866
Plug-load control	1,961	Q	Q	Q	Q	Q	449	439	294
Demand responsive lighting	2,045	Q	Q	Q	Q	Q	234	382	349
Building automation system (BAS) for lighting	16,645	232	Q	1,314	1,432	2,715	3,481	3,446	3,663
Electric vehicle (EV) charging									
Charging stations associated with the building	10,165	Q	Q	504	894	1,278	1,414	2,474	3,437

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>.

^bOther sources includes wood, coal, solar, and all other energy sources.

^cOffice devices refers to any combination of printers, copiers, scanners, or FAX machines.

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 B7. Building size, floorspace, 2018

RSEs for total floorspace

	Building size								
	All buildings	1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	3.1	5.3	5.8	6.1	5.6	5.3	5.5	5.0	8.6
Principal building activity									
Education	5.3	18.7	21.7	18.9	10.8	8.7	10.3	7.3	23.3
Food sales	17.0	16.2	27.8	51.9	59.0	49.2	41.0	41.2	0.0
Food service	8.5	10.1	14.5	27.3	79.3	70.4	76.6	0.0	0.0
Health care	5.5	17.9	21.7	23.4	20.3	18.2	15.3	13.5	9.6
Inpatient	7.2	0.0	0.0	90.6	72.3	31.1	24.0	15.0	9.6
Outpatient	8.0	17.9	21.7	23.7	23.9	22.9	18.9	29.1	45.6
Lodging	8.3	27.8	31.2	16.4	18.9	13.9	15.8	16.4	48.2
Mercantile	6.0	12.9	22.3	13.2	12.7	17.5	12.3	13.8	21.4
Retail (other than mall)	8.6	13.8	27.7	17.3	19.2	28.8	13.8	13.6	0.0
Enclosed and strip malls	7.6	29.4	30.6	19.1	15.3	19.2	20.0	21.4	21.4
Office	5.5	11.7	11.9	15.4	14.1	13.6	11.0	9.3	15.9
Public assembly	5.8	19.4	13.7	15.3	13.9	12.6	18.0	21.9	20.9
Public order and safety	15.9	38.1	50.2	28.9	40.3	44.1	29.7	31.6	64.8
Religious worship	9.3	17.7	24.9	13.0	18.3	22.9	37.0	43.6	0.0
Service	8.1	9.8	15.1	18.7	22.9	21.7	54.0	91.0	76.4
Warehouse and storage	7.2	12.9	14.1	14.1	17.7	14.9	15.3	13.1	18.2
Other	15.1	29.8	32.1	38.0	36.9	38.4	32.6	26.7	68.7
Vacant	14.1	21.2	35.2	51.3	53.5	37.0	37.0	41.2	56.4
Year constructed									
Before 1920	10.8	18.4	21.0	19.7	26.9	27.2	29.0	34.1	45.1
1920 to 1945	8.8	12.5	21.3	19.5	21.6	20.2	19.4	13.9	33.2
1946 to 1959	7.6	13.4	18.9	17.7	16.7	17.1	21.9	19.1	33.0
1960 to 1969	5.2	10.0	15.6	14.5	14.4	13.4	14.6	12.4	19.1
1970 to 1979	6.0	12.6	15.9	13.9	16.5	12.2	15.4	15.4	14.6
1980 to 1989	5.9	12.8	13.3	14.3	13.7	11.6	12.5	9.9	25.5
1990 to 1999	6.6	11.5	17.2	15.1	14.8	11.4	10.0	8.9	16.2
2000 to 2009	6.3	11.8	16.2	13.3	13.9	9.8	11.0	10.5	18.7
2010 to 2018	7.6	15.8	18.9	19.7	14.5	13.7	16.1	16.7	27.6
Census region									
Northeast	7.2	14.6	14.0	14.6	12.8	11.6	11.3	11.4	14.3
Midwest	7.4	14.5	16.1	13.5	13.6	14.2	10.6	12.1	14.2
South	6.1	9.7	10.3	11.6	9.2	8.6	9.2	7.3	15.7
West	7.1	8.7	10.1	12.3	11.8	10.5	13.2	11.1	29.3
Climate zone^a									
Cold or very cold	17.0	22.0	21.9	20.9	31.6	16.2	24.8	26.2	35.2
Cool	8.3	14.6	17.4	10.9	12.5	14.5	10.8	13.7	15.9
Mixed mild	10.5	17.5	20.5	17.2	14.2	14.9	12.5	10.5	16.0
Warm	10.0	13.2	14.2	12.6	11.8	14.8	16.1	10.3	20.8
Hot or very hot	14.1	19.9	21.8	24.5	20.4	15.0	16.1	14.2	14.5

Relative Standard Errors (RSEs) for Table B7. Building size, floorspace, 2018

RSEs for total floorspace

	Building size								
	All buildings	1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	3.1	5.3	5.8	6.1	5.6	5.3	5.5	5.0	8.6
Number of floors									
1	4.5	5.4	6.8	7.7	8.7	7.7	11.1	10.3	23.1
2	4.4	10.1	12.2	10.2	11.4	8.0	10.4	10.9	19.0
3	7.6	18.9	23.8	14.2	13.2	14.2	14.0	12.7	24.9
4 to 9	6.3	37.5	33.2	47.6	15.8	9.6	10.1	8.4	12.4
10 or more	11.0	0.0	0.0	0.0	0.0	22.6	17.0	11.4	15.5
Elevators and escalators (more than one may apply)									
Any elevators	4.5	54.6	29.6	14.3	9.2	7.0	6.1	5.5	9.4
1 elevator	6.0	54.6	30.5	15.1	10.0	8.9	10.2	14.3	25.8
2 to 5 elevators	5.2	0.0	73.0	36.7	20.0	9.6	7.7	8.2	22.3
6 or more elevators	8.4	0.0	0.0	0.0	0.0	98.6	28.6	8.5	10.4
Any escalators	13.7	80.2	0.0	50.3	60.7	44.3	41.4	18.3	16.1
Number of workers (main shift)									
Fewer than 5	5.9	6.4	9.5	8.7	14.6	18.9	30.6	36.8	75.0
5 to 9	6.9	9.3	11.8	12.7	15.7	18.9	23.8	36.3	0.0
10 to 19	7.4	15.9	9.7	15.1	13.9	14.8	24.6	31.1	55.9
20 to 49	4.8	30.8	17.0	10.5	8.0	9.0	12.0	14.5	49.9
50 to 99	5.9	0.0	34.6	21.4	11.5	7.9	9.5	14.3	34.7
100 to 249	5.6	0.0	0.0	48.7	21.3	12.0	8.6	6.9	20.2
250 or more	6.4	0.0	0.0	0.0	65.7	28.8	11.6	7.2	9.5
Weekly operating hours									
Fewer than 40	6.6	8.9	12.1	13.9	18.4	17.0	19.3	19.0	40.1
40 to 48	5.1	9.0	12.3	12.1	11.6	12.0	13.9	12.8	37.9
49 to 60	4.3	10.7	12.1	11.4	12.3	9.1	9.1	9.5	20.5
61 to 84	5.3	13.1	17.0	13.8	11.8	13.0	10.6	11.2	16.3
85 to 167	6.2	14.5	19.0	18.6	16.0	12.1	14.8	10.9	21.8
Open continuously	5.0	14.0	17.6	14.3	13.6	9.9	9.7	8.4	12.4
Ownership and occupancy									
Nongovernment owned	3.3	5.3	6.0	5.8	6.5	6.7	6.6	6.4	9.8
Owner occupied	3.3	6.4	8.4	6.1	8.3	7.8	8.1	7.8	12.7
Leased to tenant or tenants	4.8	7.2	10.9	11.1	10.0	9.7	9.8	9.2	14.7
Unoccupied	19.2	24.6	39.6	67.8	64.7	63.4	48.7	53.7	50.2
Government owned	6.0	14.1	18.2	16.0	9.7	8.5	9.0	8.4	17.6
Federal	16.1	40.5	50.1	45.5	33.4	30.3	32.3	23.1	35.6
State	11.8	25.1	28.1	31.2	24.2	16.7	16.5	19.2	34.1
Local	6.0	14.3	21.2	17.1	11.3	9.9	10.9	9.6	16.3
Party responsible for operation of energy systems									
Building owner	3.2	6.2	6.9	6.4	6.6	5.8	5.4	5.7	9.6
Business owner or tenant	7.2	9.7	14.4	15.4	14.5	13.5	20.1	15.2	25.8
Property management	11.7	33.4	61.2	39.6	35.6	25.5	30.1	21.8	26.1
Other	11.1	31.1	63.5	27.0	31.0	28.1	21.3	22.3	36.8

Relative Standard Errors (RSEs) for Table B7. Building size, floorspace, 2018

RSEs for total floorspace

	Building size								
	All buildings	1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	3.1	5.3	5.8	6.1	5.6	5.3	5.5	5.0	8.6
Provider of direct input on energy-related equipment purchases									
Building owner	3.1	6.2	6.5	6.3	6.2	5.8	5.4	5.4	9.4
Business owner or tenant	8.8	14.1	19.1	25.6	14.8	15.9	21.7	19.0	31.0
Property management	16.2	47.5	59.8	42.0	41.6	36.5	47.7	27.9	42.7
Other	8.1	18.4	25.0	21.0	22.6	16.2	22.1	21.3	29.9
Number of establishments									
1	3.6	6.2	7.2	7.2	6.5	6.6	6.1	6.5	11.7
2 to 5	5.5	11.7	11.4	10.5	14.3	12.1	11.4	11.2	24.3
6 to 10	7.9	0.0	34.9	20.9	14.6	17.6	16.6	18.8	22.9
11 to 20	8.9	71.0	59.3	52.1	19.7	16.7	17.6	14.6	20.8
More than 20	10.1	0.0	71.7	74.9	38.2	38.6	25.4	11.3	14.9
Currently unoccupied	16.5	22.8	36.8	67.7	56.1	45.3	37.5	48.3	50.2
Campus or complex activity									
Not part of a campus or complex	3.7	6.2	7.3	7.7	7.9	7.5	6.6	6.6	13.1
Primary or secondary school	9.4	22.9	25.2	25.4	17.3	16.7	16.1	15.0	60.5
College or university	15.9	59.1	43.0	35.2	25.1	23.6	21.0	23.4	27.6
Office complex	10.0	24.1	28.0	47.5	22.4	23.4	19.6	17.2	28.0
Retail complex	9.2	25.4	24.6	20.2	22.6	22.4	21.8	22.5	32.4
Storage complex	11.0	23.8	22.6	25.1	34.5	25.5	25.1	21.6	30.2
Religious campus or complex	12.0	25.2	22.8	20.3	24.6	27.7	36.3	38.7	99.6
Health care complex	8.2	46.7	48.1	29.6	40.1	29.7	17.4	17.0	10.3
Lodging or resort complex	13.7	20.0	38.9	29.7	30.2	49.6	58.9	45.3	22.8
Transportation complex	33.2	48.1	55.1	50.8	107.6	51.1	103.6	37.1	45.7
Government complex	17.0	26.3	54.5	32.4	49.1	44.3	30.2	23.3	47.6
Other type of campus or complex	7.4	16.1	16.9	20.3	21.0	18.3	23.0	15.1	33.3
Predominant exterior wall material									
Brick, stone, or stucco	3.9	7.3	7.6	8.0	5.9	6.2	7.7	7.0	14.7
Concrete (block or poured)	4.8	11.1	14.6	11.6	11.9	10.0	9.4	10.7	21.3
Concrete panels	8.4	38.0	42.5	28.1	23.3	15.0	16.6	13.1	16.5
Siding or shingles	9.3	8.1	19.5	23.0	23.2	36.5	33.4	34.8	55.7
Metal panels	6.0	11.7	11.0	10.9	19.4	20.3	20.5	15.6	27.6
Window glass	11.4	99.8	76.5	46.3	42.1	35.0	29.5	14.8	18.2
Other	13.7	22.3	28.5	35.8	77.7	35.0	23.3	29.6	36.6

Relative Standard Errors (RSEs) for Table B7. Building size, floorspace, 2018

RSEs for total floorspace

	Building size								
	All buildings	1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	3.1	5.3	5.8	6.1	5.6	5.3	5.5	5.0	8.6
Predominant roof material									
Metal surfacing	5.6	9.0	8.7	9.8	13.4	10.6	14.2	17.4	28.6
Synthetic or rubber	4.1	12.9	12.2	11.3	10.2	8.2	7.3	6.1	10.1
Built-up	4.8	11.9	15.6	14.5	10.9	8.4	10.7	9.2	16.2
Slate or tile shingles	10.1	18.0	22.7	18.0	20.3	22.4	30.7	34.5	35.1
Wooden materials (including shingles)	17.8	18.1	42.5	34.9	37.5	32.9	63.5	78.3	96.6
Asphalt, fiberglass, or other shingles	5.6	7.8	13.9	10.8	13.2	14.2	17.7	18.7	32.1
Concrete	11.9	27.5	67.4	46.8	38.9	24.1	22.8	20.9	28.0
Other	9.8	24.9	24.8	38.8	26.1	20.9	21.8	16.9	27.0
Roof tilt									
Flat	3.3	8.4	11.0	10.2	5.9	6.0	6.0	5.2	9.9
Shallow pitch	4.8	7.7	8.5	8.2	11.8	11.2	13.6	13.2	22.2
Steeper pitch	5.7	9.0	13.0	10.4	12.0	13.8	16.2	19.4	31.0
Cool roof characteristics (more than one may apply)									
White or reflective coating or paint	4.4	11.0	11.8	11.2	10.5	7.6	8.7	7.7	13.4
White or reflective tiles or shingles	10.4	25.3	35.0	22.9	27.7	26.9	23.1	22.4	27.9
Aluminum coating	9.2	11.7	18.9	19.1	25.4	18.2	18.9	23.6	28.6
Ballasted roof system	9.5	80.6	33.5	25.7	22.0	15.5	16.0	14.9	22.5
Other cool roof property	19.2	63.4	49.1	77.3	52.2	50.6	37.2	32.7	34.2
Renovations since 2000 (more than one may apply)									
Any type of renovation	3.4	8.4	8.8	8.2	9.0	6.7	6.6	5.6	8.6
Addition or annex	6.0	20.3	20.4	18.6	19.0	14.9	13.6	8.9	11.1
Reduction in floorspace	13.2	81.0	39.7	53.7	42.4	33.3	32.4	23.4	26.6
Roof replacement	4.3	11.7	14.5	12.7	14.7	8.9	9.7	7.6	12.7
Interior wall reconfiguration	4.2	11.1	13.8	13.9	13.7	10.0	9.5	7.0	10.2
Window replacement	5.8	13.3	16.6	17.3	15.2	11.9	13.3	12.9	18.8
HVAC equipment upgrade	4.2	11.5	12.3	10.5	9.9	8.6	8.5	6.3	10.1
Lighting upgrade	3.9	10.0	13.1	11.2	10.5	8.0	8.3	6.8	9.2
Electrical upgrade	5.6	11.3	16.4	16.2	14.2	12.2	11.5	8.0	13.0
Plumbing system upgrade	5.2	12.8	14.8	18.6	12.5	10.1	11.9	8.4	13.5
Insulation upgrade	7.8	15.9	24.2	19.1	15.3	15.9	13.9	12.7	22.0
Fire, safety, or security upgrade	4.4	13.8	16.7	13.9	10.3	9.2	9.7	7.0	12.2
Structural upgrade	10.2	20.5	33.3	28.5	21.3	20.7	20.7	13.5	27.0
Other	14.9	60.4	57.8	60.8	40.6	45.1	23.2	20.1	38.5
No renovations	3.9	6.2	6.8	7.4	7.7	7.8	8.8	8.5	17.6
Buildings constructed 2013 or later	8.3	18.6	22.7	23.0	16.2	14.8	19.3	19.5	30.4

Relative Standard Errors (RSEs) for Table B7. Building size, floorspace, 2018

RSEs for total floorspace

	Building size								
	All buildings	1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	3.1	5.3	5.8	6.1	5.6	5.3	5.5	5.0	8.6
Energy sources (more than one may apply)									
Electricity	3.0	5.5	5.7	6.2	5.6	5.3	5.5	5.0	8.6
Natural gas	3.4	8.1	8.2	7.2	6.6	5.6	6.2	5.5	9.2
Fuel oil	5.4	16.3	27.5	15.3	14.4	8.8	9.4	7.4	11.3
District heat	11.4	76.8	41.3	28.6	27.1	20.3	21.8	18.2	13.2
District chilled water	13.7	71.4	73.2	33.1	34.7	28.5	24.2	19.7	15.4
Propane	7.6	13.7	16.7	18.9	17.5	15.3	14.8	12.8	29.1
Solar	11.5	43.4	36.1	26.2	25.9	23.0	18.3	14.7	24.9
Wood, coal, and other	14.0	28.9	28.4	31.8	35.7	38.8	38.6	45.3	49.3
Space-heating energy sources (more than one may apply)									
Electricity	3.7	6.9	8.4	8.2	7.6	7.3	7.3	7.1	12.0
Natural gas	3.6	8.7	9.1	7.9	6.9	6.2	6.2	5.9	11.8
Fuel oil	11.6	22.8	25.8	27.5	32.2	23.9	25.7	20.7	31.6
District heat	11.6	76.8	44.4	29.3	27.5	20.3	21.8	19.0	13.2
Propane	13.1	16.1	21.7	22.7	33.9	28.6	33.3	32.8	99.5
Other sources ^b	19.6	31.6	36.9	40.9	41.7	89.2	49.3	67.6	0.0
Primary space-heating energy source									
Electricity	5.5	8.6	11.2	11.9	8.6	10.2	8.7	9.3	13.9
Natural gas	4.1	9.3	9.4	8.5	7.8	6.6	6.6	6.2	13.5
Fuel oil	15.3	24.1	30.9	30.8	46.5	33.9	36.8	33.2	62.5
District heat	12.6	76.8	44.4	30.4	26.6	21.5	23.4	20.1	14.2
Propane	16.9	19.8	25.5	32.3	40.0	41.6	58.6	70.4	70.8
Other sources ^b	30.3	36.4	60.4	57.4	77.4	0.0	64.3	49.5	0.0
Cooling energy sources (more than one may apply)									
Electricity	3.0	6.0	6.0	6.2	5.9	5.2	5.6	4.7	9.0
Natural gas	24.2	68.8	0.0	0.0	69.6	63.5	59.9	48.1	34.8
District chilled water	13.7	71.4	73.2	33.1	34.7	28.5	24.2	19.7	15.4
Water-heating energy sources (more than one may apply)									
Electricity	3.6	5.8	7.9	8.3	7.0	8.6	7.0	6.5	10.1
Natural gas	3.7	10.1	10.4	8.6	7.9	5.8	6.4	6.3	12.5
Fuel oil	15.4	34.9	58.8	37.6	46.0	42.6	29.0	33.0	44.7
District heat	12.8	0.0	54.2	41.0	45.9	27.0	24.1	18.0	17.9
Propane	14.7	26.1	34.0	29.8	32.6	29.1	38.0	38.0	50.6
Cooking energy sources (more than one may apply)									
Electricity	3.9	8.1	10.7	11.0	9.3	8.0	7.2	5.5	11.7
Natural gas	3.4	12.8	14.6	13.0	10.3	7.2	8.1	5.5	10.3
Propane	11.7	20.4	36.5	26.7	33.6	20.4	23.4	25.4	42.8

Relative Standard Errors (RSEs) for Table B7. Building size, floorspace, 2018

RSEs for total floorspace

	Building size								
	All buildings	1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	3.1	5.3	5.8	6.1	5.6	5.3	5.5	5.0	8.6
Energy end uses (more than one may apply)									
Buildings with space heating	3.0	5.7	6.7	6.3	5.8	5.3	5.5	5.0	8.7
Buildings with cooling	3.0	5.9	6.0	6.1	5.8	5.1	5.5	4.7	8.6
Buildings with water heating	2.9	5.9	6.4	5.9	5.9	5.2	5.5	5.0	8.7
Buildings with cooking	3.1	7.8	9.0	8.2	7.9	6.2	6.6	4.9	9.3
Buildings with manufacturing	7.9	24.2	25.8	18.8	22.5	15.1	15.1	15.7	25.8
Buildings with electricity generation	4.4	13.8	21.8	12.8	12.3	6.9	7.3	5.8	10.7
Buildings with lighting	3.0	5.4	5.8	6.2	5.6	5.3	5.5	5.0	8.6
Percentage of floorspace heated									
Not heated	10.0	9.3	13.7	21.4	29.5	25.8	34.2	27.7	41.2
1 to 50%	7.1	12.1	19.2	14.6	17.9	17.5	14.4	14.0	26.9
51 to 99%	5.3	13.5	12.7	12.6	12.1	11.1	12.6	11.3	15.0
100%	3.2	5.9	8.3	6.8	7.2	6.4	6.3	6.2	10.3
Percentage of floorspace cooled									
Not cooled	8.0	8.6	13.7	18.7	28.2	32.1	26.3	30.4	0.0
1 to 50%	5.2	13.0	10.9	10.6	12.3	10.4	12.5	11.0	18.9
51 to 99%	5.1	11.1	13.1	11.6	10.5	9.5	10.4	9.6	12.9
100%	3.5	6.1	8.5	7.2	8.7	6.9	7.2	6.2	13.0
Percentage lit when open									
0%	38.5	46.3	41.7	0.0	50.4	0.0	10.0	50.8	0.0
1 to 50%	6.0	11.2	13.9	12.1	15.4	15.5	21.3	24.2	23.9
51 to 99%	3.6	7.8	8.1	8.2	8.5	7.5	6.9	5.9	15.0
100%	3.8	6.1	9.4	8.9	7.3	7.0	8.3	7.2	9.1
Building never open or electricity not used	12.1	14.9	23.1	33.7	46.8	41.4	28.4	36.2	50.2
Percentage lit during off hours									
0%	6.7	7.9	10.7	11.1	16.1	16.0	20.5	21.1	76.1
1 to 50%	3.0	6.4	7.4	6.9	6.0	5.8	6.1	5.3	9.9
51 to 100%	6.7	19.9	27.1	24.3	21.1	17.2	17.4	14.2	12.2
Building always open with no off hours	11.6	27.0	31.6	39.3	25.2	26.5	33.4	25.6	29.2
Electricity not used	17.6	18.1	30.3	43.7	5.5	54.4	95.0	75.8	0.0

Relative Standard Errors (RSEs) for Table B7. Building size, floorspace, 2018

RSEs for total floorspace

	Building size								
	All buildings	1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	3.1	5.3	5.8	6.1	5.6	5.3	5.5	5.0	8.6
Heating equipment (more than one may apply)									
Packaged heating units	3.6	7.1	8.0	8.3	6.7	6.8	7.1	6.6	14.6
Furnaces	5.7	11.3	11.8	10.1	13.8	14.3	15.4	15.6	40.9
Individual space heaters	4.8	8.0	13.3	10.0	12.5	9.6	10.3	9.3	19.3
Boilers	4.0	13.9	17.9	13.5	8.9	6.6	6.7	5.9	14.0
Heat pumps	5.4	12.4	16.4	13.6	15.1	11.2	12.2	10.3	22.8
District heat	11.6	76.8	44.4	29.3	27.5	20.3	21.8	19.0	13.2
Duct reheat	7.0	32.6	34.7	27.1	25.2	18.9	12.2	10.8	13.1
Other	24.1	0.0	50.1	83.4	64.6	55.7	39.5	38.7	77.8
Cooling equipment (more than one may apply)									
Packaged air-conditioning units	3.4	7.4	7.7	8.3	6.6	5.9	6.9	6.0	9.3
Residential-type central air conditioners	5.2	11.5	11.6	10.4	14.4	11.2	12.5	10.6	14.1
Individual air conditioners	5.3	10.7	13.9	13.0	14.7	10.7	14.0	12.4	18.8
Central chillers	5.0	58.9	41.9	20.7	14.3	9.6	7.7	7.0	11.2
Heat pumps	6.8	19.4	23.1	16.0	17.4	12.4	11.3	11.5	23.6
District chilled water	13.7	71.4	73.2	33.1	34.7	28.5	24.2	19.7	15.4
Swamp coolers	13.1	31.7	31.9	25.1	29.3	23.9	31.6	23.2	37.1
Other	36.4	50.8	0.0	70.2	74.1	0.0	3.9	53.9	81.1
HVAC features (more than one may apply)									
Economizer cycle	3.9	16.2	16.3	10.6	8.6	6.2	6.9	5.3	10.3
Variable air volume (VAV) system	4.9	15.7	19.4	14.1	9.4	8.8	6.9	6.3	9.9
Dedicated outside air system (DOAS)	7.8	25.1	24.0	19.6	20.1	14.1	13.3	12.2	21.5
Demand controlled ventilation (DCV)	5.5	18.7	18.0	21.3	15.6	13.8	13.4	9.9	17.4
Regular HVAC maintenance	3.2	7.0	7.3	7.1	6.2	5.0	5.7	5.1	8.8
Building automation system (BAS) controls heating or cooling	3.7	12.4	16.2	11.7	8.3	6.1	5.7	5.2	9.2
Internet-connected or smart thermostat	10.5	19.9	17.6	21.9	18.9	17.5	21.5	26.7	53.9
Programmable thermostat	5.4	7.1	10.4	10.0	10.9	10.0	15.1	15.7	26.5
Main equipment replaced since 2000 (more than one may apply)									
Heating	3.8	8.6	10.1	8.1	11.5	8.6	7.8	8.1	13.1
Cooling	4.3	8.5	10.1	10.2	10.6	8.0	10.1	8.2	17.6
Water-heating equipment									
Centralized system	3.4	7.2	6.8	6.2	6.6	6.2	6.3	6.8	15.9
Distributed system	6.4	12.9	15.7	15.3	12.4	11.7	13.5	14.2	15.7
Combination of centralized and distributed systems	5.2	20.7	27.6	19.3	14.6	12.1	9.8	7.2	11.1

Relative Standard Errors (RSEs) for Table B7. Building size, floorspace, 2018

RSEs for total floorspace

	Building size								
	All buildings	1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	3.1	5.3	5.8	6.1	5.6	5.3	5.5	5.0	8.6
Generation technologies (more than one may apply)									
Reciprocating engine generators	4.8	16.1	26.5	13.8	13.9	7.7	8.1	6.2	11.4
Solar panels	11.5	40.0	36.1	26.7	25.9	23.0	18.6	15.0	24.9
Other generation technology	14.4	37.7	50.2	52.7	45.5	42.5	21.3	25.4	27.9
Lighting equipment types (more than one may apply)									
Incandescent	4.5	12.0	11.7	12.0	11.1	10.5	10.5	9.1	15.6
Standard fluorescent	3.4	6.6	6.5	7.4	6.6	6.0	6.2	5.4	8.6
Compact fluorescent	4.2	10.1	11.6	9.5	9.2	7.8	7.8	6.5	11.0
High-intensity discharge	7.1	27.8	33.7	24.3	17.1	11.3	14.8	9.9	16.7
Halogen	4.2	17.5	19.6	13.1	11.9	11.9	11.9	10.0	16.6
LED	2.9	6.6	7.0	6.8	7.2	5.4	6.2	5.7	9.0
Other	24.1	51.3	0.0	50.3	0.0	57.7	10.2	70.9	0.0
Refrigeration equipment (more than one may apply)									
Any refrigeration	3.0	6.4	6.9	6.8	6.2	5.3	5.5	5.0	9.1
Walk-in units	3.4	10.4	13.4	13.2	11.6	6.9	6.9	5.1	10.5
Cases or cabinets	3.7	9.8	13.0	11.5	11.3	8.4	7.4	5.6	11.3
Large cold storage areas	11.3	32.6	46.1	58.4	36.7	21.5	19.8	17.9	27.2
Commercial ice makers	3.5	9.9	14.3	11.0	9.9	6.4	6.3	5.9	10.4
Residential-type or compact units	3.2	6.9	7.8	7.0	6.1	5.7	6.0	5.9	9.7
Vending machines	3.8	15.8	19.6	14.6	7.9	6.3	5.8	5.3	9.9
No refrigeration	5.3	7.2	10.1	11.8	14.9	13.6	14.4	17.7	25.3
Office equipment (more than one may apply)									
Desktop computers	2.9	6.3	6.8	6.5	5.6	5.1	5.6	5.0	8.8
With multiple monitors	3.5	11.1	9.8	9.0	8.1	6.7	6.7	5.1	9.1
Laptop computers	3.0	6.8	7.5	8.1	6.4	5.5	5.3	5.2	8.8
Dedicated servers	3.3	10.0	10.3	9.4	7.6	5.7	5.7	5.4	9.5
Tablets charged in building	3.3	9.2	10.0	9.0	7.4	5.7	6.3	5.4	9.7
Large floor-standing office devices ^c	3.0	11.6	9.9	8.8	6.7	5.2	5.7	5.3	9.5
Smaller desktop office devices ^c	3.1	5.8	7.5	6.8	6.2	5.4	5.5	5.4	9.4
Interactive whiteboards	4.5	32.2	41.7	23.5	12.4	8.2	8.4	6.8	14.9
Televisions or video displays	3.0	6.3	8.9	7.4	5.1	5.4	5.4	5.3	9.2
Point-of-sale devices or cash registers	3.4	7.8	11.4	10.6	9.2	8.5	6.7	5.5	10.8

Relative Standard Errors (RSEs) for Table B7. Building size, floorspace, 2018

RSEs for total floorspace

	Building size								
	All buildings	1,001 to 5,000 square feet	5,001 to 10,000 square feet	10,001 to 25,000 square feet	25,001 to 50,000 square feet	50,001 to 100,000 square feet	100,001 to 200,000 square feet	200,001 to 500,000 square feet	Over 500,000 square feet
All buildings	3.1	5.3	5.8	6.1	5.6	5.3	5.5	5.0	8.6
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar, concession stand, or coffee shop	6.7	30.8	50.7	30.0	16.0	14.0	12.4	8.3	14.5
Fast food or small restaurant	5.9	24.1	30.5	21.8	22.9	13.5	11.0	9.7	14.0
Cafeteria or large restaurant food preparation area	4.6	0.0	45.3	35.2	16.2	11.5	8.3	6.2	11.9
Small kitchen area	4.4	38.0	29.7	15.5	12.9	9.4	8.2	6.7	14.0
4.7	10.8	11.7	12.1	9.7	9.3	11.1	7.4	15.5	
Separate computer areas (more than one may apply)									
Server closet	3.4	13.8	10.8	8.9	7.8	5.6	5.5	5.5	9.5
Data center	6.7	53.2	47.5	33.1	20.6	13.3	11.0	8.0	14.2
Computer-based training room	4.6	33.4	36.9	17.6	13.3	8.3	8.9	6.6	13.4
Student or public computer center	4.6	29.7	25.2	23.8	12.1	9.1	9.6	7.8	26.4
Window and interior lighting features (more than one may apply)									
Multipaned windows	3.2	6.3	7.4	6.6	6.6	5.5	6.0	5.7	9.5
Tinted window glass	3.4	8.7	8.9	7.8	6.7	7.0	7.6	6.5	10.1
Reflective window glass	5.6	19.3	20.1	13.4	12.0	12.0	9.9	8.4	16.0
External overhangs or awnings	4.5	7.1	9.7	9.6	10.6	8.9	9.6	8.0	16.7
Skylights or atriums	4.5	20.5	17.9	13.6	10.9	10.5	8.6	7.7	12.9
Light scheduling	4.1	12.1	13.1	11.2	8.0	6.9	6.9	7.1	11.0
Occupancy sensors	3.8	16.5	18.9	10.6	7.8	5.8	7.0	6.2	9.6
Multilevel lighting or dimming	6.6	24.0	25.1	16.2	14.0	12.3	11.3	9.1	16.1
Daylight harvesting	6.3	30.0	40.4	23.2	15.7	16.0	14.0	12.8	12.4
Plug-load control	12.2	33.5	45.7	42.8	76.4	26.7	23.0	24.2	34.3
Demand responsive lighting	15.2	52.0	59.8	35.4	38.1	39.4	34.4	22.0	33.2
Building automation system (BAS) for lighting	5.2	26.3	28.8	16.6	13.7	10.1	9.0	7.4	13.6
Electric vehicle (EV) charging									
Charging stations associated with the building	7.2	47.0	43.7	24.2	20.9	13.9	13.5	10.0	14.9

Data source: U.S. Energy Information Administration, Forms 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>.

^bOther sources includes wood, coal, solar, and all other energy sources.

^cOffice devices refers to any combination of printers, copiers, scanners, or FAX machines.