

Table C22. Electricity consumption totals and conditional intensities by building activity subcategories, 2018

	Site electricity consumption								
	All buildings using electricity						Distribution of building-level intensities (kWh/square foot)		
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)	Total (billion kilowatthours [kWh])	Per building (thousand kWh)	Per square foot (kWh)	25th percentile	Median	75th percentile
All buildings	5,613	94,844	16.9	1,196	213	12.6	4.1	8.6	15.8
Principal building activity (expanded)									
Education	437	13,623	31.1	128	293	9.4	5.8	9.6	13.1
College or university	60	1,827	30.6	23	385	12.6	7.4	10.3	14.3
K–12	264	10,619	40.3	96	365	9.1	6.2	9.6	13.1
Elementary school	133	3,626	27.3	31	230	8.4	6.1	9.9	13.1
Middle/junior high school	26	1,832	69.5	16	626	9.0	7.0	11.6	18.1
High school	69	3,510	51.1	35	509	9.9	7.1	9.4	11.8
Multi-grade school (any K–12)	36	1,651	46.0	14	397	8.6	4.3	8.9	11.3
Preschool or daycare	81	482	5.9	4	49	8.2	6.3	10.0	13.3
Other classroom education	33	695	21.3	5	151	7.1	2.6	3.3	10.1
Food sales	163	1,006	6.2	54	329	53.3	33.1	47.4	69.9
Convenience store (with or without gas station)	121	371	3.1	19	156	50.7	33.1	50.7	69.9
Grocery store or food market	33	604	18.3	34	1,035	56.4	34.9	43.5	77.8
Other food sales	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food service	286	1,385	4.8	61	212	43.8	22.9	39.3	58.5
Fast food	70	291	4.1	18	260	62.8	41.8	58.6	82.0
Restaurant or cafeteria	175	924	5.3	37	214	40.6	20.7	36.7	52.6
Other food service	41	171	4.1	5	120	29.0	22.2	27.1	42.4
Health care	137	4,018	29.3	96	698	23.8	8.4	14.2	19.8
Inpatient	9	2,259	264.8	65	7,631	28.8	22.2	30.4	35.3
Outpatient	129	1,760	13.7	31	238	17.4	8.4	13.8	19.1
Office (diagnostic)	64	638	9.9	9	147	14.9	8.0	11.0	16.7
Clinic or other outpatient	64	1,122	17.5	21	330	18.9	9.3	14.7	21.3
Lodging	207	6,976	33.7	100	484	14.4	8.2	14.5	24.5
Hotel	66	3,551	54.0	46	703	13.0	8.7	12.8	18.4
Motel or inn	41	592	14.5	9	222	15.3	7.9	16.9	24.5
Dormitory, fraternity, or sorority	35	840	Q	9	268	11.3	8.2	13.6	36.1
Nursing home or assisted living	38	1,525	40.6	30	788	19.4	8.7	20.1	28.3
Other lodging	27	467	17.0	6	212	12.5	5.3	10.7	16.3
Mercantile	513	10,776	21.0	180	352	16.7	7.3	12.5	20.1
Retail (other than mall)	346	5,188	15.0	71	205	13.7	5.1	9.0	14.5
Retail store	291	4,482	15.4	60	207	13.5	4.6	8.4	12.0
Other retail	55	706	12.9	11	195	15.2	9.7	15.7	20.1
Enclosed and strip malls	167	5,588	33.5	109	657	19.6	16.3	20.1	24.0
Strip shopping center	166	4,904	29.6	101	610	20.6	16.4	20.1	24.0
Enclosed mall	1	684	727.8	8	8,852	12.2	4.4	11.0	16.4

Table C22. Electricity consumption totals and conditional intensities by building activity subcategories, 2018

	Site electricity consumption						Distribution of building-level intensities (kWh/square foot)		
	All buildings using electricity			Total (billion kilowatthours [kWh])	Per building (thousand kWh)	Per square foot (kWh)	25th percentile	Median	75th percentile
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)						
All buildings	5,613	94,844	16.9	1,196	213	12.6	4.1	8.6	15.8
Office	970	16,662	17.2	227	234	13.6	6.1	10.1	15.7
Administrative or professional	553	9,294	16.8	126	227	13.5	6.1	9.7	15.5
Bank or other financial	47	628	13.4	9	193	14.4	10.0	13.6	27.0
Government	129	2,526	19.6	32	251	12.8	6.0	10.6	15.2
Medical (non-diagnostic)	46	356	7.7	5	99	12.8	3.4	9.2	19.2
Mixed-use	119	3,359	28.3	50	423	15.0	6.7	11.0	14.9
Other office	76	500	6.5	5	69	10.6	5.6	8.4	14.4
Public assembly	488	7,192	14.7	87	179	12.1	3.7	8.2	14.9
Library	25	433	17.0	7	267	15.7	10.5	13.5	15.8
Entertainment or culture	71	1,318	18.6	17	246	13.2	2.0	4.6	12.5
Recreation	152	2,279	15.0	30	195	13.0	6.4	8.7	16.6
Social or meeting	220	2,469	11.2	26	116	10.3	3.3	7.5	13.9
Other assembly	20	694	35.0	8	397	11.4	3.0	5.7	11.0
Public order and safety	81	1,538	18.9	21	263	13.9	8.2	13.8	15.3
Fire or police station	61	586	9.5	7	122	12.8	8.0	13.8	15.2
Courthouse or probation office	9	452	51.2	5	595	11.6	8.5	9.9	12.7
Other public order	11	501	45.9	9	794	17.3	15.1	16.8	18.0
Religious worship	439	5,471	12.5	27	61	4.9	2.5	4.2	7.5
Service	866	6,208	7.2	45	52	7.2	3.0	6.3	10.8
Post office or postal center	35	367	10.4	5	145	13.9	7.3	7.4	14.2
Vehicle service or repair	267	1,923	7.2	12	44	6.1	2.3	4.6	8.5
Vehicle storage or maintenance	368	2,772	7.5	14	38	5.1	2.6	5.1	9.6
Other service	196	1,145	5.9	14	71	12.2	7.5	10.3	20.6
Warehouse and storage	792	16,335	20.6	95	120	5.8	1.6	3.4	7.8
Nonrefrigerated	788	16,008	20.3	85	108	5.3	1.6	3.4	7.7
Warehouse	476	6,661	14.0	31	66	4.7	1.6	3.5	7.9
Distribution or shipping center	161	7,985	49.7	47	295	5.9	2.9	4.6	7.8
Self storage units	152	1,362	9.0	7	45	5.1	1.0	1.6	7.0
Refrigerated	3	327	94.8	10	2,808	29.6	30.9	30.9	37.5
Other	108	2,407	22.2	70	646	29.1	2.8	12.3	25.3
Laboratory	11	711	65.6	23	Q	32.1	12.3	25.3	25.8
Other	98	1,696	17.4	47	484	27.8	2.8	10.5	24.6
Vacant	124	1,246	10.0	5	39	3.9	0.8	2.6	7.1

Data source: U.S. Energy Information Administration, Forms EIA-871A and E 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.

Estimates in the *energy end uses* category represent total consumption in buildings that have the end use but not the consumption specifically for that end use.

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 C22. Electricity consumption totals and conditional intensities by building activity subcategories, 2018

	All buildings using electricity			RSEs for site electricity consumption					
	RSEs for number of buildings	RSEs for total floorspace	RSEs for floorspace per building	Total	Per building	Per square foot	RSEs not available for quartiles		
							25th percentile	Median	75th percentile
All buildings	3.9	3.0	2.6	3.1	3.5	2.1	—	—	—
Principal building activity (expanded)									
Education	7.8	5.3	6.8	5.9	7.6	2.7	—	—	—
College or university	19.3	14.1	18.9	15.7	21.3	6.1	—	—	—
K–12	8.9	5.9	7.5	6.8	8.0	3.0	—	—	—
Elementary school	12.8	10.1	11.2	10.4	11.4	4.7	—	—	—
Middle/junior high school	25.0	10.7	25.0	12.1	22.9	5.2	—	—	—
High school	18.9	7.7	14.9	8.7	15.1	4.4	—	—	—
Multi-grade school (any K–12)	27.4	14.2	22.0	19.3	18.8	9.2	—	—	—
Preschool or daycare	27.3	32.8	19.8	29.3	19.3	21.3	—	—	—
Other classroom education	21.1	17.7	16.7	23.0	22.8	11.1	—	—	—
Food sales	14.3	17.0	12.9	24.8	21.5	14.5	—	—	—
Convenience store (with or without gas station)	16.0	19.2	10.0	17.4	9.1	8.5	—	—	—
Grocery store or food market	24.6	23.6	19.4	36.5	29.7	22.4	—	—	—
Other food sales	41.9	58.7	37.5	55.2	25.3	63.4	—	—	—
Food service	7.7	8.5	5.7	9.5	6.8	4.7	—	—	—
Fast food	14.6	17.6	8.9	18.1	9.8	7.3	—	—	—
Restaurant or cafeteria	9.9	11.6	7.6	12.4	9.3	6.1	—	—	—
Other food service	19.2	19.7	12.9	24.2	15.5	11.1	—	—	—
Health care	9.8	5.5	8.5	6.9	10.8	4.3	—	—	—
Inpatient	19.4	7.2	18.5	9.5	18.9	5.4	—	—	—
Outpatient	10.3	8.0	8.4	8.6	10.0	4.2	—	—	—
Office (diagnostic)	14.5	14.5	13.1	16.9	17.6	7.5	—	—	—
Clinic or other outpatient	12.8	10.0	11.3	10.4	12.5	5.6	—	—	—
Lodging	9.4	8.3	9.6	10.3	10.3	4.6	—	—	—
Hotel	15.8	13.3	16.9	15.3	16.9	4.5	—	—	—
Motel or inn	23.0	23.9	24.4	26.5	25.9	11.1	—	—	—
Dormitory, fraternity, or sorority	44.5	25.5	52.0	28.6	35.9	14.3	—	—	—
Nursing home or assisted living	17.6	14.3	9.4	21.2	14.8	11.7	—	—	—
Other lodging	43.1	29.2	35.4	29.8	37.6	9.0	—	—	—
Mercantile	7.3	6.0	6.5	6.6	8.2	3.1	—	—	—
Retail (other than mall)	10.0	8.6	7.4	8.7	9.5	5.3	—	—	—
Retail store	10.8	9.7	7.7	9.4	10.4	5.3	—	—	—
Other retail	22.6	19.7	18.6	25.7	22.1	16.0	—	—	—
Enclosed and strip malls	7.6	7.6	8.4	8.3	8.8	2.5	—	—	—
Strip shopping center	7.7	8.5	8.9	9.1	9.3	2.3	—	—	—
Enclosed mall	19.9	19.5	10.7	22.6	15.3	10.3	—	—	—

Relative standard errors (RSEs) for Table C22. Electricity consumption totals and conditional intensities by building activity subcategories, 2018

RSEs for site electricity consumption

	All buildings using electricity			RSEs not available for quartiles					
	RSEs for number of buildings	RSEs for total floorspace	RSEs for floorspace per building	Total	Per building	Per square foot	25th percentile	Median	75th percentile
All buildings	3.9	3.0	2.6	3.1	3.5	2.1	—	—	—
Office	7.2	5.5	6.9	5.6	7.5	2.4	—	—	—
Administrative or professional	7.8	5.8	7.7	6.6	8.8	2.9	—	—	—
Bank or other financial	26.9	24.3	20.7	24.5	21.0	15.4	—	—	—
Government	23.4	16.5	19.5	15.9	20.8	6.1	—	—	—
Medical (non-diagnostic)	19.9	21.1	16.3	27.2	23.6	15.6	—	—	—
Mixed-use	16.0	11.9	11.6	11.9	13.5	6.6	—	—	—
Other office	24.5	20.7	23.7	22.8	26.5	8.6	—	—	—
Public assembly	9.1	5.8	6.9	8.3	8.1	5.2	—	—	—
Library	29.4	24.3	25.1	24.6	26.1	8.1	—	—	—
Entertainment or culture	26.8	16.3	26.4	25.7	35.0	14.3	—	—	—
Recreation	11.6	9.1	9.0	12.0	12.5	7.5	—	—	—
Social or meeting	15.0	11.2	13.4	13.7	14.9	9.1	—	—	—
Other assembly	29.7	17.8	31.1	14.9	32.1	10.6	—	—	—
Public order and safety	20.2	15.9	17.4	20.2	20.3	7.1	—	—	—
Fire or police station	25.2	21.7	14.5	29.0	21.1	12.6	—	—	—
Courthouse or probation office	33.5	19.7	29.3	21.8	33.3	8.7	—	—	—
Other public order	35.5	35.5	33.6	37.7	36.1	9.0	—	—	—
Religious worship	9.5	9.3	6.4	8.5	7.6	5.8	—	—	—
Service	7.4	8.0	6.4	8.4	7.6	6.6	—	—	—
Post office or postal center	35.0	31.4	38.1	35.9	43.0	16.5	—	—	—
Vehicle service or repair	11.5	15.7	10.5	15.7	15.3	11.0	—	—	—
Vehicle storage or maintenance	11.7	12.7	11.4	14.1	8.0	10.8	—	—	—
Other service	11.6	15.1	12.5	15.4	14.1	9.9	—	—	—
Warehouse and storage	7.7	7.4	7.5	9.0	9.4	5.4	—	—	—
Nonrefrigerated	7.7	7.4	7.6	8.8	9.0	4.9	—	—	—
Warehouse	9.9	10.5	9.6	12.2	10.8	6.6	—	—	—
Distribution or shipping center	14.5	9.5	13.2	10.6	14.3	6.5	—	—	—
Self storage units	22.5	22.2	15.6	31.3	28.6	17.3	—	—	—
Refrigerated	44.7	27.7	33.1	34.7	26.4	19.4	—	—	—
Other	17.5	15.4	15.3	15.5	19.3	11.6	—	—	—
Laboratory	45.8	22.9	41.5	28.3	54.5	19.1	—	—	—
Other	18.3	18.5	18.0	17.8	21.7	14.3	—	—	—
Vacant	20.9	15.8	13.8	19.2	16.1	14.2	—	—	—

Data source: U.S. Energy Information Administration, Forms EIA-871A and E 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>.