

Preliminary release date: September 2022

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Table C24. Natural gas consumption and expenditure intensities, 2018

	Natural gas consumption			Natural gas expenditures					
	Per building (thousand cubic feet)	Per square foot (cubic feet)	Per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)			Per building (thousand dollars)	Per square foot (dollars)	Per thousand cubic feet (dollars)
				25th percentile	Median	75th percentile			
All buildings	745	32.7	36.1	14.3	28.1	51.7	\$5.5	\$0.24	\$7.35
Building floorspace (square feet)									
1,001 to 5,000	157	53.6	34.8	16.0	34.7	62.4	\$1.5	\$0.52	\$9.70
5,001 to 10,000	296	38.6	36.7	11.8	23.0	47.9	\$2.6	\$0.33	\$8.64
10,001 to 25,000	518	32.3	37.7	14.6	28.1	44.8	\$4.4	\$0.28	\$8.50
25,001 to 50,000	1,211	33.6	41.9	15.1	27.0	43.8	\$9.0	\$0.25	\$7.45
50,001 to 100,000	2,178	31.0	38.0	11.6	22.5	42.8	\$15.2	\$0.22	\$6.97
100,001 to 200,000	4,112	29.4	34.7	11.7	24.1	42.3	\$26.8	\$0.19	\$6.52
200,001 to 500,000	9,330	31.9	36.0	8.5	24.4	43.1	\$58.3	\$0.20	\$6.25
Over 500,000	26,173	26.9	26.9	5.7	17.6	28.5	\$147.7	\$0.15	\$5.64
Principal building activity									
Education	1,461	30.8	43.5	10.9	23.0	44.1	\$10.0	\$0.21	\$6.82
Food sales	511	69.2	77.1	24.8	67.2	113.8	\$3.7	\$0.50	\$7.23
Food service	719	147.6	67.1	64.5	152.1	245.8	\$5.6	\$1.15	\$7.82
Health care	2,577	59.1	37.1	17.4	28.1	45.4	\$16.9	\$0.39	\$6.55
Inpatient	23,840	77.9	49.5	29.5	82.7	129.2	\$148.3	\$0.48	\$6.22
Outpatient	499	27.8	17.1	15.5	27.2	37.1	\$4.0	\$0.22	\$8.09
Lodging	1,564	37.0	90.1	16.4	34.3	62.5	\$10.5	\$0.25	\$6.73
Mercantile	980	35.7	41.2	13.3	26.5	51.0	\$6.7	\$0.24	\$6.83
Retail (other than mall)	485	23.3	35.7	9.0	16.7	29.8	\$3.7	\$0.18	\$7.54
Enclosed and strip malls	1,528	44.0	43.6	23.9	45.0	62.0	\$10.1	\$0.29	\$6.58
Office	438	21.3	11.1	13.7	24.0	36.8	\$3.7	\$0.18	\$8.42
Public assembly	758	39.8	92.0	14.9	34.1	60.2	\$5.4	\$0.28	\$7.08
Public order and safety	829	35.5	34.5	29.7	46.2	53.0	\$6.1	\$0.26	\$7.31
Religious worship	350	22.2	64.9	14.4	22.1	32.2	\$3.0	\$0.19	\$8.70
Service	366	41.9	46.8	11.8	32.0	53.6	\$3.1	\$0.36	\$8.57
Warehouse and storage	600	18.6	42.6	9.0	22.0	38.1	\$4.6	\$0.14	\$7.61
Other	879	29.2	38.1	7.0	21.3	22.0	\$6.8	\$0.23	\$7.75
Vacant	317	19.2	Q	17.4	27.0	49.7	\$2.5	\$0.15	\$7.98
Year constructed									
Before 1920	427	31.9	39.6	14.9	32.2	63.5	\$3.5	\$0.26	\$8.09
1920 to 1945	693	31.0	30.3	19.2	31.2	49.5	\$5.0	\$0.22	\$7.24
1946 to 1959	537	33.1	39.4	13.6	24.7	47.2	\$4.2	\$0.26	\$7.80
1960 to 1969	663	35.6	43.2	15.0	32.6	57.1	\$4.9	\$0.26	\$7.43
1970 to 1979	729	32.1	38.9	15.1	30.2	56.1	\$5.3	\$0.23	\$7.22
1980 to 1989	809	34.3	30.7	13.8	29.0	51.3	\$6.0	\$0.25	\$7.43
1990 to 1999	729	28.9	33.5	10.2	22.1	39.9	\$5.4	\$0.21	\$7.39
2000 to 2009	1,009	35.7	39.2	13.9	27.4	51.7	\$7.3	\$0.26	\$7.23
2010 to 2018	892	29.8	32.2	13.7	29.9	52.2	\$6.2	\$0.21	\$6.97

Table C24. Natural gas consumption and expenditure intensities, 2018

	Natural gas consumption				Natural gas expenditures				
	Per building (thousand cubic feet)	Per square foot (cubic feet)	Per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)			Per building (thousand dollars)	Per square foot (dollars)	Per thousand cubic feet (dollars)
				25th percentile	Median	75th percentile			
All buildings	745	32.7	36.1	14.3	28.1	51.7	\$5.5	\$0.24	\$7.35
Census region and division									
Northeast	1,096	36.1	36.3	21.5	34.3	52.8	\$8.4	\$0.28	\$7.65
New England	1,163	40.5	37.3	21.5	33.6	67.1	\$9.8	\$0.34	\$8.44
Middle Atlantic	1,082	35.2	36.1	21.2	34.3	52.2	\$8.1	\$0.26	\$7.47
Midwest	801	38.5	49.0	21.0	36.2	58.6	\$5.4	\$0.26	\$6.73
East North Central	816	40.1	49.7	22.0	39.7	64.1	\$5.4	\$0.26	\$6.59
West North Central	762	34.8	47.0	18.2	27.9	50.9	\$5.4	\$0.25	\$7.15
South	664	27.1	30.8	10.5	21.7	38.9	\$5.4	\$0.22	\$8.12
South Atlantic	789	27.7	29.5	14.0	22.0	40.1	\$6.2	\$0.22	\$7.86
East South Central	608	29.5	41.5	13.0	23.0	45.8	\$5.4	\$0.26	\$8.89
West South Central	561	25.0	28.0	9.0	17.5	37.5	\$4.5	\$0.20	\$8.02
West	590	30.4	28.8	8.8	24.0	50.8	\$4.2	\$0.22	\$7.14
Mountain	765	37.5	36.0	15.4	34.1	58.2	\$4.8	\$0.24	\$6.32
Pacific	472	25.1	23.7	6.2	15.7	38.2	\$3.8	\$0.20	\$8.02
Climate zone^a									
Cold or very cold	803	40.2	48.1	21.8	35.9	56.9	\$5.6	\$0.28	\$6.98
Cool	815	38.6	43.3	20.9	35.4	57.3	\$5.6	\$0.27	\$6.86
Mixed mild	995	33.6	36.4	16.1	29.3	55.5	\$7.2	\$0.24	\$7.28
Warm	531	26.1	29.1	10.2	20.8	39.4	\$4.4	\$0.22	\$8.25
Hot or very hot	531	22.9	22.9	6.2	13.7	34.3	\$4.3	\$0.18	\$8.08
Number of floors									
1	527	35.6	43.2	13.8	29.7	53.9	\$4.1	\$0.27	\$7.71
2	670	29.6	36.4	14.4	27.1	45.3	\$5.1	\$0.22	\$7.57
3	1,049	31.9	44.1	15.8	27.6	46.3	\$7.7	\$0.23	\$7.31
4 to 9	3,281	32.6	29.0	15.0	26.7	48.2	\$21.3	\$0.21	\$6.50
10 or more	11,479	28.8	18.5	7.1	20.0	31.1	\$70.8	\$0.18	\$6.17
Number of workers (main shift)									
Fewer than 5	226	29.0	94.0	13.7	26.2	50.1	\$2.0	\$0.26	\$8.98
5 to 9	338	31.2	51.9	13.8	26.5	50.6	\$2.9	\$0.26	\$8.44
10 to 19	639	37.7	50.6	17.4	32.5	58.7	\$5.1	\$0.30	\$7.91
20 to 49	1,155	33.5	40.1	13.3	32.0	55.5	\$8.5	\$0.25	\$7.34
50 to 99	2,431	33.5	37.4	13.8	28.1	49.3	\$16.8	\$0.23	\$6.90
100 to 249	4,737	32.5	32.6	16.2	28.2	45.6	\$29.9	\$0.21	\$6.32
250 or more	11,418	31.9	17.5	6.2	21.4	39.6	\$71.0	\$0.20	\$6.21
Weekly operating hours									
Fewer than 40	283	25.9	35.8	15.4	22.4	39.3	\$2.4	\$0.22	\$8.60
40 to 48	417	25.5	29.8	11.1	22.9	37.8	\$3.4	\$0.20	\$8.05
49 to 60	623	26.4	24.9	12.4	29.8	51.3	\$4.8	\$0.20	\$7.67
61 to 84	1,000	35.3	37.9	16.0	33.8	71.0	\$7.2	\$0.25	\$7.19
85 to 167	1,282	44.2	57.5	27.1	52.3	129.2	\$9.0	\$0.31	\$7.03
Open continuously	1,784	40.7	45.0	14.9	38.4	61.2	\$12.0	\$0.27	\$6.71

Table C24. Natural gas consumption and expenditure intensities, 2018

	Natural gas consumption				Natural gas expenditures				
	Per building (thousand cubic feet)	Per square foot (cubic feet)	Per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)			Per building (thousand dollars)	Per square foot (dollars)	Per thousand cubic feet (dollars)
				25th percentile	Median	75th percentile			
All buildings	745	32.7	36.1	14.3	28.1	51.7	\$5.5	\$0.24	\$7.35
Ownership and occupancy									
Nongovernment owned	687	33.2	35.9	14.3	27.8	52.2	\$5.1	\$0.25	\$7.46
Owner occupied	641	33.2	39.4	14.0	27.1	50.8	\$4.8	\$0.25	\$7.53
Leased to tenant or tenants	789	33.4	31.6	14.3	29.3	56.5	\$5.8	\$0.24	\$7.33
Unoccupied	Q	Q	N	Q	Q	Q	Q	Q	Q
Government owned	1,055	31.1	36.7	14.1	29.0	49.3	\$7.4	\$0.22	\$6.99
Federal	1,861	28.2	21.0	23.4	33.5	49.7	\$11.9	\$0.18	\$6.39
State	1,113	31.4	38.6	9.4	22.0	45.0	\$7.5	\$0.21	\$6.76
Local	978	31.4	39.3	15.7	29.8	49.3	\$7.0	\$0.23	\$7.18
Party responsible for operation of energy systems									
Building owner	749	32.3	35.9	14.4	27.6	50.8	\$5.5	\$0.24	\$7.33
Business owner or tenant	687	36.8	41.0	12.1	33.3	56.9	\$5.2	\$0.28	\$7.52
Property management	978	26.5	23.4	16.9	26.2	46.7	\$7.3	\$0.20	\$7.45
Other	966	30.6	29.8	15.8	29.3	39.8	\$6.8	\$0.21	\$7.02
Provider of direct input on energy-related equipment purchases									
Building owner	732	32.4	36.2	14.3	27.7	50.5	\$5.4	\$0.24	\$7.35
Business owner or tenant	832	38.9	42.9	10.4	34.3	62.2	\$6.1	\$0.28	\$7.31
Property management	988	28.4	22.6	22.6	26.2	42.1	\$7.3	\$0.21	\$7.34
Other	797	29.9	28.4	15.8	29.3	54.8	\$5.9	\$0.22	\$7.38
Number of establishments									
1	635	33.0	41.8	14.3	27.6	52.3	\$4.8	\$0.25	\$7.55
2 to 5	857	33.0	34.6	11.2	28.7	46.5	\$6.2	\$0.24	\$7.18
6 to 10	1,450	33.4	26.7	19.2	41.8	57.2	\$10.2	\$0.24	\$7.05
11 to 20	2,369	36.0	26.4	16.9	41.9	56.5	\$15.8	\$0.24	\$6.66
More than 20	5,904	24.8	16.8	5.7	17.5	46.6	\$35.2	\$0.15	\$5.97
Currently unoccupied	251	21.0	N	17.4	27.0	50.9	\$2.1	\$0.17	\$8.22
Predominant exterior wall material									
Brick, stone, or stucco	811	35.6	38.1	14.9	28.1	50.9	\$5.9	\$0.26	\$7.30
Concrete (block or poured)	900	32.5	44.0	15.1	29.2	57.3	\$6.4	\$0.23	\$7.14
Concrete panels	1,620	25.7	26.6	9.0	19.4	34.5	\$11.3	\$0.18	\$6.96
Siding or shingles	303	37.2	39.5	16.4	34.1	63.4	\$2.6	\$0.32	\$8.51
Metal panels	403	26.7	41.4	11.8	26.2	43.9	\$3.2	\$0.21	\$8.00
Window glass	3,229	23.8	11.6	19.3	29.8	58.7	\$24.3	\$0.18	\$7.52
Other	535	25.1	19.9	6.3	17.0	42.1	\$3.9	\$0.18	\$7.27

Table C24. Natural gas consumption and expenditure intensities, 2018

	Natural gas consumption					Natural gas expenditures			
	Per building (thousand cubic feet)	Per square foot (cubic feet)	Per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)		Per building (thousand dollars)	Per square foot (dollars)	Per thousand cubic feet (dollars)	
				25th percentile	Median				75th percentile
All buildings	745	32.7	36.1	14.3	28.1	51.7	\$5.5	\$0.24	\$7.35
Predominant roof material									
Metal surfacing	392	29.0	41.7	10.7	23.5	48.9	\$3.2	\$0.24	\$8.11
Synthetic or rubber	1,327	34.7	35.5	16.4	33.1	53.8	\$9.3	\$0.24	\$6.98
Built-up	1,080	32.0	31.9	13.0	27.7	47.2	\$7.6	\$0.22	\$7.00
Slate or tile shingles	426	35.8	38.9	15.7	26.2	57.3	\$3.5	\$0.29	\$8.15
Wooden materials (including shingles)	436	40.2	46.2	20.8	37.0	65.4	\$4.0	\$0.36	\$9.07
Asphalt, fiberglass, or other shingles	464	33.4	42.4	15.8	30.6	50.1	\$3.6	\$0.26	\$7.83
Concrete	1,281	27.8	30.6	21.9	22.0	44.4	\$9.1	\$0.20	\$7.08
Other	845	26.3	28.7	7.0	18.8	36.7	\$6.1	\$0.19	\$7.23
Roof tilt									
Flat	1,198	34.3	33.9	13.0	27.8	52.3	\$8.3	\$0.24	\$6.96
Shallow pitch	499	29.6	39.2	13.6	26.5	50.5	\$3.9	\$0.23	\$7.87
Steeper pitch	373	31.7	44.2	17.0	29.3	50.1	\$3.1	\$0.26	\$8.35
Cool roof characteristics (more than one may apply)									
White or reflective coating or paint	1,153	32.7	34.6	12.8	27.1	52.5	\$8.1	\$0.23	\$7.06
White or reflective tiles or shingles	998	30.2	33.4	16.5	23.9	48.2	\$7.6	\$0.23	\$7.57
Aluminum coating	483	31.2	34.4	9.8	26.2	51.7	\$3.7	\$0.24	\$7.68
Ballasted roof system	2,196	36.8	33.7	19.4	24.7	42.0	\$14.0	\$0.23	\$6.38
Other cool roof property	1,108	22.4	15.7	6.5	34.3	44.4	\$7.6	\$0.15	\$6.82
Renovations since 2000 (more than one may apply)									
Any type of renovation	1,019	34.4	35.5	14.3	27.4	52.3	\$7.3	\$0.25	\$7.17
Addition or annex	2,082	40.8	49.3	18.2	32.3	62.7	\$14.1	\$0.28	\$6.76
Reduction in floorspace	2,223	33.5	29.9	14.9	20.0	40.1	\$13.8	\$0.21	\$6.22
Roof replacement	1,220	35.9	37.2	16.2	27.4	49.8	\$8.4	\$0.25	\$6.87
Interior wall reconfiguration	1,346	33.1	28.7	13.7	30.4	54.0	\$9.2	\$0.23	\$6.86
Window replacement	1,047	35.7	35.5	16.9	27.1	55.1	\$7.3	\$0.25	\$6.97
HVAC equipment upgrade	1,199	34.1	34.1	13.1	24.3	50.7	\$8.4	\$0.24	\$6.97
Lighting upgrade	1,230	33.8	34.2	14.8	27.6	54.7	\$8.6	\$0.24	\$6.98
Electrical upgrade	1,392	36.6	35.9	13.7	27.1	55.5	\$9.5	\$0.25	\$6.83
Plumbing system upgrade	1,301	36.0	34.3	12.8	27.2	55.1	\$8.9	\$0.25	\$6.83
Insulation upgrade	1,334	37.4	36.8	18.9	32.3	53.0	\$8.8	\$0.25	\$6.60
Fire, safety, or security upgrade	1,650	36.0	36.9	13.6	31.0	58.0	\$11.0	\$0.24	\$6.68
Structural upgrade	1,601	41.1	35.5	17.5	35.5	55.1	\$10.3	\$0.26	\$6.44
Other	1,162	31.7	34.8	15.6	32.7	44.2	\$8.4	\$0.23	\$7.21
No renovations	539	31.3	37.6	14.3	28.6	51.3	\$4.1	\$0.24	\$7.68
Buildings constructed 2013 or later	923	29.7	32.8	14.9	25.1	52.0	\$6.3	\$0.20	\$6.85

Table C24. Natural gas consumption and expenditure intensities, 2018

	Natural gas consumption					Natural gas expenditures			
	Per building (thousand cubic feet)	Per square foot (cubic feet)	Per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)		Per building (thousand dollars)	Per square foot (dollars)	Per thousand cubic feet (dollars)	
				25th percentile	Median				75th percentile
All buildings	745	32.7	36.1	14.3	28.1	51.7	\$5.5	\$0.24	\$7.35
Energy sources (more than one may apply)									
Electricity	745	32.7	36.1	14.3	28.1	51.7	\$5.5	\$0.24	\$7.35
Natural gas	745	32.7	36.1	14.3	28.1	51.7	\$5.5	\$0.24	\$7.35
Fuel oil	2,399	34.9	29.6	10.4	25.3	50.1	\$16.1	\$0.23	\$6.69
District heat	2,299	20.3	18.6	2.1	7.3	22.0	\$15.0	\$0.13	\$6.54
District chilled water	1,983	21.1	20.7	1.9	8.1	26.3	\$12.4	\$0.13	\$6.23
Propane	1,405	32.7	53.7	12.5	22.3	35.5	\$9.0	\$0.21	\$6.43
Solar	1,371	28.0	29.3	8.4	27.2	47.9	\$9.2	\$0.19	\$6.74
Wood, coal, and other	711	42.4	46.6	13.7	31.1	50.6	\$4.7	\$0.28	\$6.59
Space-heating energy sources									
Natural gas	777	34.6	39.2	15.6	29.7	52.0	\$5.7	\$0.25	\$7.29
Natural gas main	782	36.6	42.3	16.7	31.1	52.3	\$5.7	\$0.27	\$7.26
Natural gas secondary	726	22.1	22.6	7.7	15.2	37.1	\$5.5	\$0.17	\$7.59
Other excluding natural gas	558	21.3	19.9	6.2	16.5	41.1	\$4.4	\$0.17	\$7.87
Buildings without heating	330	21.8	24.5	4.1	24.8	152.0	\$3.2	\$0.21	\$9.68
Primary space-heating energy source									
Electricity	556	22.9	22.6	6.4	17.5	43.8	\$4.4	\$0.18	\$8.00
Natural gas	782	36.6	42.3	16.7	31.1	52.3	\$5.7	\$0.27	\$7.26
Fuel oil	Q	13.2	Q	0.2	0.6	13.7	Q	Q	\$8.66
District heat	2,018	18.0	16.6	1.1	6.5	21.8	\$13.4	\$0.12	\$6.62
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other sources ^b	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling energy sources									
Natural gas	4,932	54.2	70.6	10.1	23.7	270.6	\$28.9	\$0.32	\$5.86
Other excluding natural gas	778	32.7	35.5	14.4	28.0	51.7	\$5.7	\$0.24	\$7.34
Buildings without cooling	304	29.5	54.4	12.1	30.8	52.7	\$2.4	\$0.24	\$8.00
Water-heating energy sources									
Natural gas	906	36.6	40.1	15.7	31.7	56.7	\$6.4	\$0.26	\$7.09
Other excluding natural gas	529	24.4	26.8	12.4	22.1	45.3	\$4.3	\$0.20	\$8.18
Buildings without water heating	164	20.3	29.9	10.7	23.0	37.0	\$1.5	\$0.18	\$8.96
Cooking energy sources									
Natural gas	1,636	42.9	45.5	24.2	50.8	86.0	\$11.1	\$0.29	\$6.76
Other excluding natural gas	545	28.4	31.8	13.9	24.0	41.7	\$4.2	\$0.22	\$7.68
Buildings without cooking	436	24.9	28.2	11.9	23.6	42.7	\$3.5	\$0.20	\$8.14

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	Per building (thousand cubic feet)	Per square foot (cubic feet)	Per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)		Per building (thousand dollars)	Per square foot (dollars)	Per thousand cubic feet (dollars)	
				25th percentile	Median				75th percentile
All buildings	745	32.7	36.1	14.3	28.1	51.7	\$5.5	\$0.24	\$7.35
HVAC features (more than one may apply)									
Economizer cycle	1,871	35.5	33.7	14.5	32.0	54.5	\$12.6	\$0.24	\$6.71
Variable air volume (VAV) system	1,630	32.9	28.9	12.7	31.3	54.2	\$11.0	\$0.22	\$6.75
Dedicated outside air system (DOAS)	1,677	38.0	37.9	14.6	31.8	62.2	\$10.9	\$0.25	\$6.50
Demand controlled ventilation (DCV)	1,233	33.2	37.1	14.8	27.1	45.0	\$8.5	\$0.23	\$6.86
Regular HVAC maintenance	931	33.3	35.9	14.3	29.3	53.0	\$6.7	\$0.24	\$7.19
Building automation system (BAS) controls heating or cooling	1,748	33.7	31.7	14.3	27.6	50.1	\$11.6	\$0.22	\$6.66
Internet-connected or smart thermostat	622	26.4	35.1	10.4	23.6	48.2	\$4.8	\$0.20	\$7.74
Programmable thermostat	537	33.4	42.4	14.7	29.0	52.2	\$4.3	\$0.27	\$7.98
Main equipment replaced since 2000 (more than one may apply)									
Heating	716	33.2	37.2	13.9	28.2	52.2	\$5.3	\$0.25	\$7.43
Cooling	859	35.6	38.4	16.2	29.4	51.7	\$6.3	\$0.26	\$7.29
Water-heating equipment									
Centralized system	694	33.8	38.4	15.1	28.9	51.7	\$5.2	\$0.25	\$7.49
Distributed system	760	31.8	34.1	10.4	27.7	55.3	\$5.5	\$0.23	\$7.29
Combination of centralized and distributed systems	1,839	31.0	30.6	15.1	32.0	57.1	\$12.3	\$0.21	\$6.72
Generation technologies (more than one may apply)									
Reciprocating engine generators	1,989	36.6	33.0	14.0	32.6	57.3	\$13.3	\$0.25	\$6.69
Solar panels	1,359	27.9	29.1	8.4	27.1	47.9	\$9.1	\$0.19	\$6.73
Other generation technology	2,811	40.0	38.1	22.1	40.0	46.3	\$16.9	\$0.24	\$6.03
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar, concession stand, or coffee shop	3,469	39.3	40.4	15.4	32.3	60.5	\$21.4	\$0.24	\$6.16
Fast food or small restaurant	2,953	40.6	38.9	24.8	49.4	78.7	\$18.2	\$0.25	\$6.15
Cafeteria or large restaurant	4,522	37.1	35.7	19.6	27.9	51.7	\$28.2	\$0.23	\$6.25
Commercial kitchen or food preparation area	2,743	40.0	46.5	17.0	33.2	59.3	\$17.9	\$0.26	\$6.53
Small kitchen area	885	33.5	39.3	15.1	26.7	46.5	\$6.1	\$0.23	\$6.93

Table C24. Natural gas consumption and expenditure intensities, 2018

	Natural gas consumption					Natural gas expenditures			
	Per building (thousand cubic feet)	Per square foot (cubic feet)	Per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)		Per building (thousand dollars)	Per square foot (dollars)	Per thousand cubic feet (dollars)	
				25th percentile	Median				75th percentile
All buildings	745	32.7	36.1	14.3	28.1	51.7	\$5.5	\$0.24	\$7.35
Annual consumption (hundred cubic feet)									
1,000 or less	51	7.9	7.1	6.2	12.1	21.9	\$0.7	\$0.10	\$12.66
1,001 to 5,000	247	22.7	24.8	20.7	33.3	56.0	\$2.3	\$0.21	\$9.24
5,001 to 10,000	714	28.9	34.4	26.6	41.5	66.1	\$5.8	\$0.24	\$8.17
10,001 to 25,000	1,506	32.8	35.2	26.6	42.4	80.8	\$12.1	\$0.26	\$8.03
25,001 to 50,000	3,546	37.2	41.2	31.8	49.9	71.1	\$22.6	\$0.24	\$6.37
50,001 to 100,000	6,936	43.5	51.9	35.8	51.8	75.6	\$42.3	\$0.27	\$6.09
Over 100,000	22,880	55.5	61.6	36.7	61.1	93.7	\$138.1	\$0.33	\$6.03

Data source: U.S. Energy Information Administration, Forms EIA-871A and C 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 and expenditures in buildings that have the end use but not the consumption and expenditures specifically for that end use.

HVAC = Heating, ventilation, and air conditioning.

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

^b*Other sources* includes wood, coal, solar, and all other energy sources.

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 C24. Natural gas consumption and expenditure intensities, 2018

	RSEs for natural gas consumption			RSEs for natural gas expenditures					
	Per building	Per square foot	Per worker	RSEs not available for percentiles			Per building	Per square foot	Per thousand cubic feet
				25th percentile	Median	75th percentile			
All buildings	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Building floorspace (square feet)									
1,001 to 5,000	5.4	5.5	7.0	—	—	—	5.0	5.2	2.4
5,001 to 10,000	7.3	7.1	8.1	—	—	—	6.6	6.3	2.2
10,001 to 25,000	4.0	3.9	6.9	—	—	—	3.9	3.7	1.6
25,001 to 50,000	4.0	3.8	7.2	—	—	—	4.1	3.9	1.9
50,001 to 100,000	5.4	5.3	6.3	—	—	—	5.8	5.7	1.8
100,001 to 200,000	4.0	4.2	6.6	—	—	—	4.1	4.4	2.2
200,001 to 500,000	4.3	4.2	6.0	—	—	—	4.9	4.9	3.2
Over 500,000	12.4	10.7	14.3	—	—	—	9.5	7.9	5.0
Principal building activity									
Education	8.9	3.7	4.6	—	—	—	9.0	4.4	2.2
Food sales	18.2	11.6	10.4	—	—	—	17.7	11.5	4.3
Food service	8.6	7.2	6.6	—	—	—	7.9	8.2	3.1
Health care	13.6	4.6	5.8	—	—	—	13.9	5.9	4.1
Inpatient	14.5	4.7	6.8	—	—	—	14.4	7.1	5.3
Outpatient	12.2	8.5	8.2	—	—	—	11.7	8.4	3.5
Lodging	15.2	7.0	9.7	—	—	—	12.0	4.5	5.2
Mercantile	9.4	4.3	4.6	—	—	—	8.3	4.0	1.8
Retail (other than mall)	12.4	6.2	9.2	—	—	—	10.8	5.4	4.2
Enclosed and strip malls	11.0	5.3	6.2	—	—	—	9.7	4.9	1.9
Office	6.9	4.7	5.7	—	—	—	6.7	5.4	2.2
Public assembly	9.9	5.5	9.1	—	—	—	8.7	5.2	2.7
Public order and safety	21.6	9.7	18.6	—	—	—	18.0	9.4	5.7
Religious worship	8.9	5.9	11.7	—	—	—	8.6	5.8	3.1
Service	13.7	11.4	11.6	—	—	—	13.0	11.1	3.3
Warehouse and storage	9.1	6.0	9.2	—	—	—	8.2	5.3	2.1
Other	26.3	13.8	16.0	—	—	—	23.9	15.9	6.6
Vacant	27.0	12.7	37.2	—	—	—	23.8	11.2	7.5
Year constructed									
Before 1920	14.3	8.0	12.2	—	—	—	12.6	8.7	3.4
1920 to 1945	12.2	9.3	12.4	—	—	—	10.9	8.9	3.9
1946 to 1959	10.7	5.1	9.5	—	—	—	10.2	5.2	2.9
1960 to 1969	7.6	4.5	6.2	—	—	—	6.8	4.5	2.8
1970 to 1979	8.0	4.6	6.5	—	—	—	7.2	4.4	2.3
1980 to 1989	11.4	6.6	9.4	—	—	—	9.0	4.8	4.5
1990 to 1999	7.8	4.6	6.7	—	—	—	7.4	5.0	2.1
2000 to 2009	7.3	4.3	6.2	—	—	—	7.3	4.6	1.8
2010 to 2018	9.9	5.9	10.0	—	—	—	9.0	5.7	2.6

Relative standard errors (RSEs) for Table C24. Natural gas consumption and expenditure intensities, 2018

	RSEs for natural gas consumption			RSEs for natural gas expenditures					
	Per building	Per square foot	Per worker	RSEs not available for percentiles			Per building	Per square foot	Per thousand cubic feet
				25th percentile	Median	75th percentile			
All buildings	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Census region and division									
Northeast	6.6	5.0	5.8	—	—	—	5.9	5.1	2.1
New England	15.4	5.1	13.3	—	—	—	12.7	5.6	4.9
Middle Atlantic	7.2	5.8	6.4	—	—	—	6.4	6.0	2.5
Midwest	8.9	2.8	5.0	—	—	—	8.0	2.7	1.7
East North Central	9.2	3.1	6.4	—	—	—	8.3	3.2	2.0
West North Central	26.6	5.8	7.6	—	—	—	23.8	5.1	3.7
South	4.8	3.4	4.9	—	—	—	4.7	4.2	2.0
South Atlantic	6.2	3.5	6.2	—	—	—	6.6	6.0	3.3
East South Central	13.9	12.1	9.1	—	—	—	14.0	12.2	1.3
West South Central	9.5	5.8	8.8	—	—	—	7.6	5.7	3.8
West	10.9	6.3	7.2	—	—	—	8.5	4.3	4.1
Mountain	16.8	9.0	11.5	—	—	—	12.3	4.8	6.7
Pacific	11.6	6.8	7.2	—	—	—	11.1	6.7	2.2
Climate zone^a									
Cold or very cold	15.2	4.7	6.9	—	—	—	13.4	5.5	4.4
Cool	8.5	3.3	5.2	—	—	—	7.6	3.4	1.9
Mixed mild	9.2	4.3	5.9	—	—	—	8.1	3.9	3.0
Warm	5.9	3.6	5.6	—	—	—	6.0	4.2	1.7
Hot or very hot	14.0	5.7	6.0	—	—	—	14.4	8.0	4.3
Number of floors									
1	4.6	3.1	3.8	—	—	—	4.2	3.1	1.3
2	5.1	3.7	5.6	—	—	—	4.3	3.5	1.8
3	9.1	4.9	7.6	—	—	—	8.8	4.9	2.5
4 to 9	8.2	4.7	6.8	—	—	—	8.3	5.0	2.1
10 or more	19.1	14.5	19.2	—	—	—	15.0	11.4	8.2
Number of workers (main shift)									
Fewer than 5	6.6	5.2	6.8	—	—	—	5.7	5.1	1.9
5 to 9	5.8	5.1	5.7	—	—	—	5.1	5.1	2.5
10 to 19	6.7	4.5	6.4	—	—	—	6.0	4.3	1.9
20 to 49	7.0	4.0	6.7	—	—	—	6.3	3.8	1.9
50 to 99	6.1	5.5	6.1	—	—	—	6.3	6.2	2.1
100 to 249	5.3	3.9	5.6	—	—	—	4.7	3.8	1.6
250 or more	10.4	7.6	9.6	—	—	—	9.2	7.0	4.8
Weekly operating hours									
Fewer than 40	8.4	5.0	11.8	—	—	—	7.2	5.2	2.5
40 to 48	8.0	4.5	5.7	—	—	—	7.6	4.3	2.1
49 to 60	5.8	4.0	5.1	—	—	—	5.2	3.8	1.6
61 to 84	7.1	3.9	5.0	—	—	—	6.5	4.2	1.9
85 to 167	9.1	6.4	6.6	—	—	—	8.9	6.6	1.9
Open continuously	8.7	3.8	5.7	—	—	—	7.8	3.7	2.5

Relative standard errors (RSEs) for Table C24. Natural gas consumption and expenditure intensities, 2018

	RSEs for natural gas consumption			RSEs for natural gas expenditures					
	Per building	Per square foot	Per worker	RSEs not available for percentiles			Per building	Per square foot	Per thousand cubic feet
				25th percentile	Median	75th percentile			
All buildings	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Ownership and occupancy									
Nongovernment owned	4.3	2.5	3.4	—	—	—	3.7	2.2	1.3
Owner occupied	5.6	3.3	4.4	—	—	—	4.9	3.0	1.8
Leased to tenant or tenants	5.9	3.3	4.9	—	—	—	5.3	2.8	1.6
Unoccupied	38.0	20.0	0.0	—	—	—	29.5	18.2	16.9
Government owned	8.6	3.3	6.1	—	—	—	8.3	3.7	2.0
Federal	23.5	15.1	23.9	—	—	—	21.1	16.4	9.7
State	14.2	6.2	10.9	—	—	—	13.4	6.5	3.5
Local	10.6	3.6	4.8	—	—	—	10.3	4.3	2.6
Party responsible for operation of energy systems									
Building owner	4.5	2.4	3.4	—	—	—	4.0	2.3	1.4
Business owner or tenant	7.9	5.1	7.4	—	—	—	6.8	4.6	2.1
Property management	21.5	11.0	13.5	—	—	—	20.1	10.8	4.0
Other	18.1	10.4	21.7	—	—	—	15.8	9.5	4.9
Provider of direct input on energy-related equipment purchases									
Building owner	4.2	2.3	3.2	—	—	—	3.8	2.2	1.3
Business owner or tenant	8.6	6.1	7.4	—	—	—	8.0	6.6	2.3
Property management	43.4	13.1	17.6	—	—	—	39.3	12.9	6.1
Other	11.5	7.3	11.9	—	—	—	10.2	6.9	3.2
Number of establishments									
1	4.4	2.5	3.8	—	—	—	4.1	2.5	1.3
2 to 5	8.8	5.5	7.3	—	—	—	7.3	4.7	3.5
6 to 10	10.3	6.3	9.8	—	—	—	8.8	5.8	2.6
11 to 20	17.6	6.8	10.1	—	—	—	14.9	7.9	4.4
More than 20	16.2	12.5	15.6	—	—	—	15.3	11.5	2.2
Currently unoccupied	33.5	15.6	0.0	—	—	—	27.9	14.3	10.2
Predominant exterior wall material									
Brick, stone, or stucco	4.9	2.7	3.6	—	—	—	4.2	2.5	1.6
Concrete (block or poured)	6.3	4.8	5.6	—	—	—	6.2	4.5	1.6
Concrete panels	16.2	9.6	12.8	—	—	—	16.0	10.7	3.8
Siding or shingles	11.2	8.9	14.1	—	—	—	10.0	9.2	3.2
Metal panels	10.0	5.7	9.1	—	—	—	8.7	5.4	2.7
Window glass	15.9	10.1	14.1	—	—	—	16.2	10.7	5.0
Other	19.4	10.1	15.5	—	—	—	16.2	10.0	5.7

Relative standard errors (RSEs) for Table C24. Natural gas consumption and expenditure intensities, 2018

RSEs for natural gas consumption

RSEs for natural gas expenditures

	RSEs not available for percentiles						Per building	Per square foot	Per thousand cubic feet
	Per building	Per square foot	Per worker	25th percentile	Median	75th percentile			
All buildings	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Predominant roof material									
Metal surfacing	6.5	4.4	5.5	—	—	—	5.9	4.6	2.2
Synthetic or rubber	6.0	3.1	4.6	—	—	—	6.1	3.6	1.6
Built-up	8.9	5.1	6.1	—	—	—	7.2	3.9	2.7
Slate or tile shingles	12.3	7.3	11.1	—	—	—	10.9	6.9	2.8
Wooden materials (including shingles)	14.7	13.6	17.7	—	—	—	14.2	13.2	5.5
Asphalt, fiberglass, or other shingles	6.9	4.2	6.3	—	—	—	5.9	4.2	2.4
Concrete	23.3	9.3	17.7	—	—	—	20.5	8.2	6.3
Other	18.0	10.3	14.2	—	—	—	17.2	11.2	5.0
Roof tilt									
Flat	5.1	2.9	3.6	—	—	—	4.8	3.0	1.5
Shallow pitch	5.0	3.2	4.8	—	—	—	4.4	3.1	1.7
Steeper pitch	5.6	3.8	7.2	—	—	—	5.1	3.9	2.2
Cool roof characteristics (more than one may apply)									
White or reflective coating or paint	6.5	3.5	4.5	—	—	—	6.0	3.0	2.2
White or reflective tiles or shingles	14.0	8.6	12.1	—	—	—	13.8	9.3	5.0
Aluminum coating	12.3	7.7	11.2	—	—	—	10.5	7.4	3.7
Ballasted roof system	21.0	8.5	12.6	—	—	—	18.4	6.0	5.1
Other cool roof property	31.8	12.1	24.8	—	—	—	27.9	12.8	5.9
Renovations since 2000 (more than one may apply)									
Any type of renovation	5.6	2.8	3.6	—	—	—	5.2	2.8	1.6
Addition or annex	9.7	5.6	5.9	—	—	—	9.8	6.5	2.7
Reduction in floorspace	29.3	12.3	19.5	—	—	—	26.8	12.6	7.1
Roof replacement	8.2	4.2	5.5	—	—	—	7.3	4.0	2.5
Interior wall reconfiguration	8.9	4.5	6.2	—	—	—	7.9	3.9	3.0
Window replacement	12.6	6.4	9.1	—	—	—	10.7	5.0	3.9
HVAC equipment upgrade	7.5	3.6	4.5	—	—	—	6.7	3.7	2.3
Lighting upgrade	6.9	3.2	4.4	—	—	—	6.4	3.2	2.0
Electrical upgrade	10.6	5.1	6.8	—	—	—	9.9	4.8	3.0
Plumbing system upgrade	10.7	5.3	6.9	—	—	—	9.5	4.8	3.1
Insulation upgrade	15.9	8.9	11.5	—	—	—	13.9	7.8	5.0
Fire, safety, or security upgrade	8.7	4.4	5.7	—	—	—	8.0	4.1	2.5
Structural upgrade	23.0	12.6	18.2	—	—	—	18.1	10.3	7.4
Other	26.3	10.9	17.3	—	—	—	26.3	13.3	5.4
No renovations	4.2	2.7	4.4	—	—	—	3.7	2.9	1.3
Buildings constructed 2013 or later	11.3	6.6	9.5	—	—	—	10.3	6.2	3.3

Relative standard errors (RSEs) for Table C24. Natural gas consumption and expenditure intensities, 2018

	RSEs for natural gas consumption			RSEs for natural gas expenditures					
	Per building	Per square foot	Per worker	RSEs not available for percentiles			Per building	Per square foot	Per thousand cubic feet
				25th percentile	Median	75th percentile			
All buildings	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Energy sources (more than one may apply)									
Electricity	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Natural gas	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Fuel oil	12.6	4.5	6.4	—	—	—	12.1	4.0	3.0
District heat	17.4	10.7	11.0	—	—	—	16.4	12.0	4.7
District chilled water	21.5	11.3	14.8	—	—	—	18.7	9.5	6.8
Propane	21.6	10.9	12.7	—	—	—	17.5	7.4	7.2
Solar	17.8	6.8	9.3	—	—	—	16.1	6.8	3.9
Wood, coal, and other	25.7	15.6	15.1	—	—	—	22.3	14.7	8.1
Space-heating energy sources									
Natural gas	4.1	2.1	3.0	—	—	—	3.6	2.0	1.3
Natural gas main	4.4	2.2	3.1	—	—	—	3.9	2.0	1.3
Natural gas secondary	9.8	5.7	8.1	—	—	—	9.2	6.4	3.2
Other excluding natural gas	8.8	7.1	8.2	—	—	—	8.3	7.7	2.7
Buildings without heating	24.4	27.9	38.6	—	—	—	22.0	26.8	7.4
Primary space-heating energy source									
Electricity	7.3	4.8	6.2	—	—	—	6.9	5.3	2.3
Natural gas	4.4	2.2	3.1	—	—	—	3.9	2.0	1.3
Fuel oil	63.4	44.5	54.2	—	—	—	68.2	53.2	18.0
District heat	19.8	11.2	11.1	—	—	—	19.1	12.7	4.7
Propane	0.0	0.0	0.0	—	—	—	0.0	0.0	0.0
Other sources ^b	49.0	15.6	45.7	—	—	—	37.4	16.3	18.0
Cooling energy sources									
Natural gas	45.4	14.0	18.8	—	—	—	40.9	13.8	4.5
Other excluding natural gas	3.8	2.1	2.8	—	—	—	3.4	2.0	1.2
Buildings without cooling	14.2	7.0	19.0	—	—	—	12.2	6.3	4.3
Water-heating energy sources									
Natural gas	4.4	2.3	3.2	—	—	—	4.1	2.3	1.3
Other excluding natural gas	6.1	4.2	5.2	—	—	—	5.6	4.0	1.7
Buildings without water heating	16.5	9.0	22.1	—	—	—	14.2	7.8	3.7
Cooking energy sources									
Natural gas	4.8	2.4	3.4	—	—	—	4.5	2.3	1.5
Other excluding natural gas	8.1	5.1	7.9	—	—	—	7.3	5.1	2.7
Buildings without cooking	4.5	2.9	4.6	—	—	—	4.1	3.0	1.4

Relative standard errors (RSEs) for Table C24. Natural gas consumption and expenditure intensities, 2018

	RSEs for natural gas consumption			RSEs for natural gas expenditures					
	Per building	Per square foot	Per worker	RSEs not available for percentiles			Per building	Per square foot	Per thousand cubic feet
				25th percentile	Median	75th percentile			
All buildings	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Energy end uses (more than one may apply)									
Buildings with space heating	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Buildings with cooling	3.7	2.1	2.9	—	—	—	3.3	2.0	1.2
Buildings with water heating	3.8	2.1	3.0	—	—	—	3.5	2.0	1.2
Buildings with cooking	4.6	2.4	3.3	—	—	—	4.2	2.3	1.5
Buildings with manufacturing	13.0	6.5	9.2	—	—	—	12.2	6.3	2.5
Buildings with electricity generation	7.2	3.5	4.9	—	—	—	6.7	3.4	2.1
Buildings with lighting	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Percentage of floorspace heated									
Not heated	24.4	27.9	38.6	—	—	—	22.0	26.8	7.4
1% to 50%	9.9	6.8	9.0	—	—	—	10.2	8.4	4.6
51% to 99%	7.0	3.6	5.4	—	—	—	6.3	3.2	1.6
100%	4.4	2.6	3.6	—	—	—	4.0	2.5	1.4
Percentage of floorspace cooled									
Not cooled	14.2	7.0	19.0	—	—	—	12.2	6.3	4.3
1% to 50%	7.5	4.6	5.5	—	—	—	6.5	4.4	2.2
51% to 99%	6.4	3.5	4.7	—	—	—	5.9	3.4	1.6
100%	5.1	3.1	4.6	—	—	—	4.3	2.7	1.7
Heating equipment (more than one may apply)									
Packaged heating units	4.5	3.0	3.6	—	—	—	3.9	2.7	1.4
Furnaces	6.8	3.5	5.1	—	—	—	5.5	3.6	2.0
Individual space heaters	7.9	4.6	6.0	—	—	—	6.8	4.2	2.3
Boilers	6.3	2.8	4.2	—	—	—	5.7	2.9	1.9
Heat pumps	10.6	5.8	7.4	—	—	—	8.6	3.9	3.2
District heat	17.4	10.7	11.0	—	—	—	16.7	12.4	4.7
Duct reheat	13.3	6.0	7.9	—	—	—	12.5	7.5	4.3
Other	24.1	8.4	15.4	—	—	—	20.5	9.7	4.4
Cooling equipment (more than one may apply)									
Packaged air-conditioning units	3.9	2.2	3.1	—	—	—	3.6	2.2	1.2
Residential-type central air conditioners	6.8	3.1	5.1	—	—	—	6.5	3.3	1.7
Individual air conditioners	8.0	3.6	4.4	—	—	—	7.4	3.5	1.7
Central chillers	5.9	3.7	5.0	—	—	—	6.7	4.4	2.2
Heat pumps	14.0	7.3	10.7	—	—	—	11.4	5.6	4.6
District chilled water	21.5	11.3	14.8	—	—	—	18.7	9.5	6.8
Swamp coolers	10.9	9.1	15.6	—	—	—	10.3	11.7	5.3
Other	133.2	44.4	44.2	—	—	—	113.7	45.7	16.1

Relative standard errors (RSEs) for Table C24. Natural gas consumption and expenditure intensities, 2018

RSEs for natural gas consumption

RSEs for natural gas expenditures

	RSEs not available for percentiles						Per building	Per square foot	Per thousand cubic feet
	Per building	Per square foot	Per worker	25th percentile	Median	75th percentile			
All buildings	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
HVAC features (more than one may apply)									
Economizer cycle	6.6	3.2	4.4	—	—	—	6.2	3.3	1.9
Variable air volume (VAV) system	8.4	4.1	5.5	—	—	—	7.9	4.0	2.5
Dedicated outside air system (DOAS)	12.8	6.2	10.6	—	—	—	10.9	5.1	3.7
Demand controlled ventilation (DCV)	9.5	4.7	8.0	—	—	—	9.3	5.2	3.0
Regular HVAC maintenance	4.0	2.3	3.2	—	—	—	3.8	2.3	1.3
Building automation system (BAS) controls heating or cooling	6.3	2.9	4.1	—	—	—	6.1	2.8	1.9
Internet-connected or smart thermostat	10.7	9.7	11.1	—	—	—	9.3	9.2	3.1
Programmable thermostat	6.4	4.4	5.3	—	—	—	5.8	4.3	1.9
Main equipment replaced since 2000 (more than one may apply)									
Heating	5.7	3.2	4.0	—	—	—	5.3	3.4	1.4
Cooling	7.2	3.6	5.7	—	—	—	6.1	3.4	2.4
Water-heating equipment									
Centralized system	4.5	2.5	4.0	—	—	—	4.0	2.4	1.5
Distributed system	8.6	5.3	6.2	—	—	—	7.8	4.9	2.0
Combination of centralized and distributed systems	10.1	4.6	6.2	—	—	—	9.1	4.5	2.3
Generation technologies (more than one may apply)									
Reciprocating engine generators	8.5	4.1	5.7	—	—	—	8.0	3.8	2.3
Solar panels	17.9	6.8	9.2	—	—	—	16.2	6.9	4.1
Other generation technology	24.5	11.9	15.4	—	—	—	22.3	9.7	6.6
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar, concession stand, or coffee shop	12.3	5.7	8.7	—	—	—	10.8	5.3	3.9
Fast food or small restaurant	11.9	5.4	8.4	—	—	—	10.1	4.6	2.9
Cafeteria or large restaurant	10.3	5.2	7.6	—	—	—	9.3	4.5	3.0
Commercial kitchen or food preparation area	9.0	3.5	5.1	—	—	—	8.2	3.5	2.3
Small kitchen area	8.4	4.5	6.3	—	—	—	6.9	3.5	2.5

Relative standard errors (RSEs) for Table C24. Natural gas consumption and expenditure intensities, 2018

	RSEs for natural gas consumption			RSEs for natural gas expenditures					
	Per building	Per square foot	Per worker	RSEs not available for percentiles			Per building	Per square foot	Per thousand cubic feet
				25th percentile	Median	75th percentile			
All buildings	3.9	2.1	2.9	—	—	—	3.5	2.0	1.2
Annual consumption (hundred cubic feet)									
1,000 or less	3.5	6.6	8.9	—	—	—	3.9	6.7	4.3
1,001 to 5,000	2.6	4.6	7.3	—	—	—	2.3	4.8	1.4
5,001 to 10,000	1.6	4.3	6.8	—	—	—	2.6	4.2	1.6
10,001 to 25,000	1.3	3.5	4.9	—	—	—	1.9	3.9	1.4
25,001 to 50,000	1.3	4.0	7.0	—	—	—	2.2	4.2	1.9
50,001 to 100,000	1.1	4.0	6.8	—	—	—	1.8	4.3	1.6
Over 100,000	5.5	5.0	7.7	—	—	—	4.7	6.1	3.3

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