

Table C23. Total natural gas consumption and expenditures, 2012

	All buildings using natural gas			Natural gas consumption		Natural gas expenditures
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
All buildings	2,933	58,725	20.0	2,248	2,193	17,279
Building floorspace (square feet)						
1,001 to 5,000	1,253	3,757	3.0	256	249	2,157
5,001 to 10,000	660	4,817	7.3	248	242	1,957
10,001 to 25,000	548	8,823	16.1	304	297	2,549
25,001 to 50,000	227	8,148	35.9	284	277	2,101
50,001 to 100,000	142	9,935	70.1	338	330	2,621
100,001 to 200,000	67	9,416	139.6	290	283	2,261
200,001 to 500,000	29	8,293	283.5	310	302	2,161
Over 500,000	6	5,535	911.1	219	214	1,473
Principal building activity						
Education	234	9,520	40.7	291	284	2,200
Food sales	82	846	10.3	53	52	420
Food service	283	1,394	4.9	227	222	1,700
Health care	95	3,292	34.6	265	258	1,818
Inpatient	8	2,113	263.2	219	214	1,441
Outpatient	87	1,179	13.5	46	45	377
Lodging	99	4,918	49.5	221	215	1,628
Mercantile	356	8,493	23.9	291	284	2,392
Retail (other than mall)	232	3,371	14.5	74	72	607
Enclosed and strip malls	124	5,123	41.5	217	212	1,785
Office	595	10,290	17.3	282	275	2,306
Public assembly	205	3,888	19.0	135	132	1,063
Public order and safety	53	1,007	19.0	41	40	310
Religious worship	229	3,016	13.2	87	85	691
Service	339	2,790	8.2	122	119	950
Warehouse and storage	261	7,007	26.8	139	136	1,120
Other	59	1,378	23.3	81	79	571
Vacant	44	886	20.2	13	12	108
Year constructed						
Before 1920	202	2,320	11.5	87	85	757
1920 to 1945	288	3,792	13.2	145	141	1,167
1946 to 1959	334	5,393	16.1	199	195	1,595
1960 to 1969	401	7,553	18.8	314	307	2,398
1970 to 1979	406	7,979	19.6	340	332	2,542
1980 to 1989	431	9,887	22.9	335	327	2,624
1990 to 1999	407	9,162	22.5	338	330	2,535
2000 to 2003	182	4,723	25.9	158	154	1,198
2004 to 2007	144	4,096	28.4	172	167	1,284
2008 to 2012	138	3,821	27.7	159	156	1,180

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All buildings	2,933	58,725	20.0	2,248	2,193	17,279
Census region and division						
Northeast	433	11,068	25.6	499	487	4,599
New England	98	2,241	22.9	111	108	1,067
Middle Atlantic	335	8,827	26.3	389	379	3,533
Midwest	843	15,025	17.8	642	627	4,383
East North Central	577	10,790	18.7	494	482	3,344
West North Central	266	4,236	15.9	149	145	1,039
South	950	19,900	21.0	615	600	4,793
South Atlantic	387	9,984	25.8	305	298	2,641
East South Central	191	3,436	18.0	104	101	790
West South Central	372	6,480	17.4	207	202	1,362
West	707	12,732	18.0	491	479	3,503
Mountain	218	3,766	17.3	163	159	1,075
Pacific	489	8,966	18.3	328	320	2,428
Climate region¹						
Very cold/Cold	1,264	24,511	19.4	1,097	1,070	8,269
Mixed-humid	932	19,361	20.8	657	641	5,432
Mixed-dry/Hot-dry	428	7,520	17.6	255	249	1,723
Hot-humid	215	5,300	24.7	171	167	1,262
Marine	94	2,033	21.6	68	67	593
Number of floors						
One	1,832	24,497	13.4	918	896	7,305
Two	723	14,665	20.3	511	499	3,956
Three	245	6,084	24.8	224	219	1,700
Four to nine	124	9,764	78.5	443	432	3,233
Ten or more	8	3,715	437.3	151	147	1,085
Number of workers (main shift)						
Fewer than 5	1,225	7,858	6.4	264	258	2,221
5 to 9	606	5,355	8.8	202	197	1,678
10 to 19	498	6,799	13.6	298	291	2,296
20 to 49	348	10,613	30.5	379	369	2,954
50 to 99	154	10,320	67.0	360	352	2,808
100 to 249	74	8,880	120.1	337	329	2,546
250 or more	27	8,900	328.6	408	398	2,775
Weekly operating hours						
Fewer than 40	433	3,705	8.6	97	95	783
40 to 48	726	9,960	13.7	259	252	2,118
49 to 60	757	14,006	18.5	369	360	2,960
61 to 84	454	11,494	25.3	469	458	3,747
85 to 167	281	6,734	24.0	349	340	2,684
Open continuously	282	12,827	45.4	705	688	4,986

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All buildings	2,933	58,725	20.0	2,248	2,193	17,279
Ownership and occupancy						
Nongovernment owned	2,489	44,481	17.9	1,747	1,704	13,484
Owner occupied	1,317	20,542	15.6	890	868	6,629
Leased to tenant(s)	951	17,361	18.3	634	618	5,172
Owner occupied and leased	198	6,254	31.5	219	213	1,647
Unoccupied	23	325	14.1	4	4	37
Government owned	444	14,244	32.1	501	489	3,794
Federal	21	868	41.1	30	29	228
State	100	3,939	39.2	169	165	1,259
Local	322	9,438	29.3	302	294	2,307
Party responsible for operation and maintenance of energy systems						
Building owner	2,439	49,100	20.1	1,852	1,807	14,092
Business owner or tenant	432	8,240	19.1	343	334	2,776
Property management	30	778	26.1	27	26	206
Other	32	607	18.9	27	26	204
Provider of direct input on energy-related equipment purchases						
Building owner	2,538	50,946	20.1	1,915	1,868	14,619
Business owner or tenant	314	6,025	19.2	264	258	2,101
Property management	18	516	28.2	17	17	121
Other	63	1,238	19.8	52	51	438
Number of establishments						
One	2,244	37,156	16.6	1,527	1,490	11,567
2 to 5	514	12,432	24.2	429	418	3,352
6 to 10	91	3,092	34.1	107	105	877
11 to 20	47	2,762	58.2	112	110	880
More than 20	11	2,862	253.7	67	65	553
Currently unoccupied	26	420	16.3	6	6	49
Predominant exterior wall material						
Brick, stone, or stucco	1,427	28,999	20.3	1,160	1,131	8,924
Concrete (block or poured)	631	14,517	23.0	535	522	4,166
Concrete panels	110	5,939	54.0	208	203	1,420
Siding or shingles	355	2,888	8.1	134	131	1,094
Metal panels	366	4,386	12.0	126	123	1,028
Window glass	14	1,048	76.7	48	47	385
Other	15	496	32.2	Q	Q	Q
No one major type	16	453	28.3	14	14	111

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All buildings	2,933	58,725	20.0	2,248	2,193	17,279
Predominant roof material						
Metal surfacing	645	7,825	12.1	241	235	1,968
Synthetic or rubber	622	19,790	31.8	850	830	6,488
Built-up	516	16,026	31.1	582	568	4,301
Slate or tile shingles	220	2,800	12.8	114	111	901
Wooden materials (including shingles)	79	611	7.7	41	40	289
Asphalt, fiberglass, or other shingles	807	9,896	12.3	368	359	2,916
Concrete	18	838	46.2	24	23	177
Other	17	539	32.4	18	18	146
No one major type	10	400	40.0	10	9	92
Roof characteristics						
Roof tilt						
Flat	1,184	35,833	30.3	1,455	1,420	10,950
Shallow pitch	1,021	14,500	14.2	481	470	3,811
Steeper pitch	728	8,392	11.5	312	304	2,518
Cool roof	447	14,352	32.1	602	588	4,507
Renovations in buildings constructed before 2008 (more than one may apply)						
Any type of renovation	1,293	30,945	23.9	1,230	1,200	9,407
Addition or annex	282	10,105	35.8	468	457	3,376
Reduction in floorspace	42	1,385	33.2	70	68	497
Roof replacement	627	16,151	25.8	681	664	5,201
Exterior wall replacement	120	3,395	28.4	129	126	974
Interior wall reconfiguration	586	16,075	27.4	644	629	4,851
Window replacement	369	9,286	25.2	387	378	2,926
HVAC equipment upgrade	719	20,438	28.4	842	822	6,341
Lighting upgrade	641	19,298	30.1	810	790	6,007
Electrical upgrade	482	12,374	25.7	551	537	4,139
Plumbing system upgrade	414	10,550	25.5	515	502	3,849
Insulation upgrade	252	5,894	23.4	269	262	2,036
Fire, safety, or security upgrade	415	13,227	31.9	569	555	4,234
Structural upgrade	101	2,835	28.2	151	148	1,070
Other	17	559	32.2	14	13	107
No renovations	1,502	23,959	15.9	859	838	6,692
Buildings constructed 2008 or later	138	3,821	27.7	159	156	1,180

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All buildings	2,933	58,725	20.0	2,248	2,193	17,279
Energy sources (more than one may apply)						
Electricity	2,933	58,725	20.0	2,248	2,193	17,279
Natural gas	2,933	58,725	20.0	2,248	2,193	17,279
Fuel oil	164	13,663	83.4	623	608	4,456
District heat	17	2,860	168.1	108	106	748
District chilled water	21	2,431	116.6	133	130	921
Propane	69	3,396	48.9	146	143	1,035
Other	72	2,637	36.7	108	106	821
Space-heating energy sources						
Natural gas	2,612	49,511	19.0	1,971	1,923	15,055
Natural gas main	2,322	42,988	18.5	1,769	1,726	13,530
Natural gas secondary	289	6,524	22.6	202	197	1,525
Other excluding natural gas	276	8,617	31.2	252	246	2,016
Buildings without heating	45	597	13.1	25	25	208
Primary space-heating energy source						
Electricity	509	11,549	22.7	335	327	2,700
Natural gas	2,322	42,988	18.5	1,769	1,726	13,530
Fuel oil	15	410	27.3	8	8	75
District heat	17	2,791	165.2	106	103	730
Propane	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q
Cooling energy sources						
Natural gas	12	732	61.5	58	57	423
Other excluding natural gas	2,688	56,167	20.9	2,120	2,068	16,243
Buildings without cooling	233	1,826	7.8	70	68	612
Water-heating energy sources						
Natural gas	1,758	39,523	22.5	1,771	1,728	13,379
Other excluding natural gas	985	17,496	17.8	439	428	3,606
Buildings without water heating	191	1,706	9.0	38	37	293
Cooking energy sources						
Natural gas	740	24,770	33.5	1,238	1,208	9,283
Other excluding natural gas	347	6,256	18.0	205	200	1,578
Buildings without cooking	1,846	27,699	15.0	805	786	6,418
Energy end uses (more than one may apply)						
Buildings with space heating	2,888	58,129	20.1	2,223	2,169	17,071
Buildings with cooling	2,700	56,899	21.1	2,178	2,125	16,667
Buildings with water heating	2,742	57,019	20.8	2,210	2,156	16,986
Buildings with cooking	1,087	31,026	28.6	1,443	1,408	10,861
Buildings with manufacturing	153	3,740	24.4	123	120	1,020
Buildings with electricity generation	270	20,271	75.0	855	834	6,275

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All buildings	2,933	58,725	20.0	2,248	2,193	17,279
Percent of floorspace heated						
Not heated	45	597	13.1	25	25	208
1 to 50	322	5,716	17.7	123	120	978
51 to 99	465	11,147	24.0	443	432	3,431
100	2,101	41,265	19.6	1,657	1,617	12,661
Percent of floorspace cooled						
Not cooled	233	1,826	7.8	70	68	612
1 to 50	697	13,031	18.7	418	408	3,257
51 to 99	592	17,106	28.9	667	651	5,161
100	1,411	26,762	19.0	1,093	1,066	8,248
Heating equipment (more than one may apply)						
Heat pumps	233	7,560	32.5	247	241	1,984
Furnaces	550	7,046	12.8	244	238	1,993
Individual space heaters	774	15,808	20.4	545	532	4,209
District heat	17	2,833	166.8	108	105	746
Boilers	409	20,019	48.9	984	960	7,351
Packaged heating units	1,901	37,569	19.8	1,360	1,327	10,488
Other	36	1,194	33.4	54	53	451
Cooling equipment (more than one may apply)						
Residential-type central air conditioners	1,012	10,504	10.4	416	406	3,330
Heat pumps	265	8,017	30.2	257	250	2,067
Individual air conditioners	385	9,137	23.7	374	365	2,992
District chilled water	21	2,431	116.6	133	130	921
Central chillers	127	13,745	108.5	598	584	4,259
Packaged air conditioning units	1,311	34,917	26.6	1,318	1,286	9,995
Swamp coolers	69	1,536	22.3	71	69	519
Other	Q	290	Q	10	10	86
Main equipment replaced since 1990 (more than one may apply)						
Heating	1,201	21,058	17.5	790	771	6,149
Cooling	1,243	23,093	18.6	882	860	6,880
Water-heating equipment						
Centralized system	2,073	34,005	16.4	1,414	1,380	10,835
Distributed system	388	8,211	21.2	257	251	2,012
Combination of centralized and distributed system	282	14,803	52.6	539	526	4,139

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All buildings	2,933	58,725	20.0	2,248	2,193	17,279
Food preparation or serving areas in non-food service buildings (more than one may apply)						
Snack bar or concession stand	96	7,867	81.7	364	355	2,660
Fast food or small restaurant	132	8,345	63.2	372	363	2,811
Cafeteria or large restaurant	104	13,043	125.6	587	572	4,206
Commercial kitchen/food preparation area	221	14,082	63.8	673	657	4,943
Small kitchen area	459	10,883	23.7	409	399	3,190
HVAC conservation features (more than one may apply)						
Economizer cycle	441	24,683	56.0	1,015	991	7,520
Regular HVAC maintenance	1,993	50,691	25.4	1,991	1,942	15,133
Building automation system (BAS) ²	519	27,821	53.6	1,100	1,073	8,094
Window and interior lighting features (more than one may apply)						
Multipaned windows	1,852	43,774	23.6	1,752	1,709	13,407
Tinted window glass	1,163	32,631	28.1	1,290	1,259	9,673
Reflective window glass	362	12,051	33.3	541	528	4,030
External overhangs or awnings	1,119	23,220	20.7	1,030	1,005	7,857
Skylights or atriums	365	16,745	45.9	681	664	5,111
Light scheduling	607	23,109	38.1	927	905	7,031
Occupancy sensors	555	26,972	48.6	1,067	1,041	8,061
Multi-level lighting or dimming	262	11,703	44.6	573	560	4,218
Daylight harvesting	77	4,920	64.0	197	192	1,516
Demand responsive lighting	101	3,678	36.5	127	124	1,051
Building automation system (BAS) for lighting ²	142	9,400	66.3	335	327	2,536
Equipment usage reduced when building not in full use (more than one may apply)						
Heating	2,313	46,818	20.2	1,675	1,635	13,009
Cooling	2,183	45,726	20.9	1,644	1,604	12,753
Lighting	2,774	55,033	19.8	2,105	2,054	16,253
Annual consumption (hundred cubic feet)						
1,000 or less	1,016	6,952	6.8	53	51	629
1,001 to 5,000	1,151	13,335	11.6	282	275	2,526
5,001 to 10,000	325	7,987	24.6	238	232	1,931
10,001 to 25,000	289	11,157	38.6	459	448	3,510
25,001 to 50,000	88	7,156	81.3	311	304	2,346
50,001 to 100,000	41	5,278	127.4	285	278	2,104
Over 100,000	23	6,860	301.2	621	606	4,234

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All buildings	2,933	58,725	20.0	2,248	2,193	17,279

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and C of the 2012 Commercial Buildings Energy Consumption Survey.

Table C24. Natural gas consumption and expenditure intensities, 2012

	Natural gas consumption			Distribution of building-level intensities (cubic feet/square foot)			Natural gas expenditures		
	per building (thousand cubic feet)	per square foot (cubic feet)	per worker (thousand cubic feet)	25th percentile	Median	75th percentile	per building (thousand dollars)	per square foot (dollars)	per thousand cubic feet (dollars)
All buildings	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3	7.9
Building floorspace (square feet)									
1,001 to 5,000	199	66.4	45.6	17.0	35.6	73.2	1.7	0.6	8.7
5,001 to 10,000	366	50.2	42.3	10.8	24.8	52.8	3.0	0.4	8.1
10,001 to 25,000	541	33.6	28.9	8.8	20.2	42.3	4.7	0.3	8.6
25,001 to 50,000	1,220	34.0	31.8	9.2	21.3	44.5	9.3	0.3	7.6
50,001 to 100,000	2,327	33.2	37.5	9.2	22.2	42.7	18.5	0.3	8.0
100,001 to 200,000	4,198	30.1	34.0	6.5	18.8	39.0	33.5	0.2	8.0
200,001 to 500,000	10,330	36.4	38.6	8.0	21.6	44.1	73.9	0.3	7.2
Over 500,000	35,203	38.6	29.5	3.1	12.4	41.7	242.4	0.3	6.9
Principal building activity									
Education	1,215	29.8	33.1	10.7	23.8	49.1	9.4	0.2	7.8
Food sales	634	61.3	63.6	18.3	46.4	75.9	5.1	0.5	8.1
Food service	783	159.2	80.8	51.3	132.5	255.3	6.0	1.2	7.7
Health care	2,714	78.5	43.5	12.1	21.6	47.1	19.1	0.6	7.0
Inpatient	26,609	101.1	55.6	21.2	85.0	129.0	179.5	0.7	6.8
Outpatient	514	38.0	21.3	11.2	21.0	42.9	4.3	0.3	8.4
Lodging	2,169	43.8	83.7	19.5	36.0	65.5	16.4	0.3	7.6
Mercantile	799	33.5	42.6	12.0	25.4	50.1	6.7	0.3	8.4
Retail (other than mall)	312	21.5	30.7	10.8	20.8	39.2	2.6	0.2	8.4
Enclosed and strip malls	1,714	41.3	49.1	16.4	42.7	93.4	14.5	0.4	8.4
Office	463	26.8	12.4	10.4	22.8	40.0	3.9	0.2	8.4
Public assembly	643	33.9	60.4	13.6	28.4	46.7	5.2	0.3	8.1
Public order and safety	751	39.5	32.2	16.6	25.9	47.7	5.9	0.3	7.8
Religious worship	371	28.1	67.8	10.6	21.7	44.7	3.0	0.2	8.2
Service	351	42.7	43.6	13.6	29.9	63.5	2.8	0.3	8.0
Warehouse and storage	520	19.4	34.0	5.6	14.6	29.9	4.3	0.2	8.3
Other	1,334	57.2	64.6	13.8	28.8	72.5	9.7	0.4	7.3
Vacant	281	13.9	82.8	5.8	16.5	29.5	2.5	0.1	8.8
Year constructed									
Before 1920	422	36.8	38.7	13.6	29.4	58.6	3.7	0.3	8.9
1920 to 1945	492	37.3	33.6	15.0	37.0	63.6	4.1	0.3	8.3
1946 to 1959	582	36.1	39.8	12.9	27.1	50.0	4.8	0.3	8.2
1960 to 1969	765	40.6	42.1	11.7	26.8	59.2	6.0	0.3	7.8
1970 to 1979	816	41.6	33.9	12.9	29.8	62.7	6.3	0.3	7.7
1980 to 1989	757	33.0	27.8	10.8	24.9	47.9	6.1	0.3	8.0
1990 to 1999	812	36.0	34.3	11.7	24.1	54.0	6.2	0.3	7.7
2000 to 2003	845	32.6	30.7	10.7	23.5	49.7	6.6	0.3	7.8
2004 to 2007	1,163	40.9	46.6	12.3	26.2	54.9	8.9	0.3	7.7
2008 to 2012	1,128	40.7	38.8	10.0	19.3	61.1	8.6	0.3	7.6

Table C24. Natural gas consumption and expenditure intensities, 2012

	Natural gas consumption								
	per building (thousand cubic feet)	per square foot (cubic feet)	per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)		Natural gas expenditures			
				25th percentile	Median	75th percentile	per building (thousand dollars)	per square foot (dollars)	per thousand cubic feet (dollars)
All buildings	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3	7.9
Census region and division									
Northeast	1,125	44.0	36.4	16.1	35.1	63.5	10.6	0.4	9.4
New England	1,104	48.1	46.6	12.6	26.0	45.2	10.9	0.5	9.9
Middle Atlantic	1,131	43.0	34.2	17.6	39.2	73.2	10.5	0.4	9.3
Midwest	743	41.7	43.9	17.0	32.0	56.0	5.2	0.3	7.0
East North Central	835	44.6	45.8	18.9	34.3	59.1	5.8	0.3	6.9
West North Central	545	34.3	38.5	13.5	24.3	49.9	3.9	0.3	7.2
South	632	30.2	30.6	8.9	22.1	52.3	5.0	0.2	8.0
South Atlantic	770	29.8	30.2	9.6	24.1	62.7	6.8	0.3	8.9
East South Central	529	29.4	32.2	9.6	21.6	33.1	4.1	0.2	7.8
West South Central	542	31.1	30.6	8.0	20.2	52.0	3.7	0.2	6.8
West	678	37.6	31.7	8.1	23.8	53.7	5.0	0.3	7.3
Mountain	731	42.3	43.6	15.6	30.4	59.0	4.9	0.3	6.7
Pacific	654	35.7	27.9	6.5	20.4	49.7	5.0	0.3	7.6
Climate region¹									
Very cold/Cold	847	43.7	43.3	18.0	34.0	59.0	6.5	0.3	7.7
Mixed-humid	688	33.1	32.1	11.9	24.3	56.5	5.8	0.3	8.5
Mixed-dry/Hot-dry	582	33.1	27.7	6.0	15.5	40.1	4.0	0.2	6.9
Hot-humid	776	31.4	27.3	6.7	19.4	55.4	5.9	0.2	7.6
Marine	706	32.7	26.0	9.2	21.1	46.4	6.3	0.3	8.9
Number of floors									
One	489	36.6	37.8	12.3	27.5	59.6	4.0	0.3	8.2
Two	689	34.0	34.1	11.9	24.0	48.5	5.5	0.3	7.9
Three	894	36.0	36.6	13.4	29.4	53.6	6.9	0.3	7.8
Four to nine	3,478	44.3	36.9	10.4	29.1	56.5	26.0	0.3	7.5
Ten or more	17,357	39.7	23.2	4.6	26.6	43.2	127.7	0.3	7.4
Number of workers (main shift)									
Fewer than 5	211	32.8	96.6	14.1	27.9	54.0	1.8	0.3	8.6
5 to 9	325	36.8	51.1	10.8	24.2	55.4	2.8	0.3	8.5
10 to 19	583	42.8	44.6	12.1	28.3	69.0	4.6	0.3	7.9
20 to 49	1,061	34.8	36.2	11.7	26.2	55.7	8.5	0.3	8.0
50 to 99	2,283	34.1	34.9	8.5	21.2	47.9	18.2	0.3	8.0
100 to 249	4,449	37.0	31.8	9.5	29.8	56.5	34.4	0.3	7.7
250 or more	14,690	44.7	21.2	6.5	21.7	54.2	102.4	0.3	7.0
Weekly operating hours									
Fewer than 40	219	25.6	46.7	12.1	24.8	44.7	1.8	0.2	8.3
40 to 48	347	25.3	21.6	10.6	22.6	40.7	2.9	0.2	8.4
49 to 60	476	25.7	21.4	10.5	22.7	46.7	3.9	0.2	8.2
61 to 84	1,009	39.9	39.1	14.0	33.9	89.1	8.3	0.3	8.2
85 to 167	1,211	50.5	55.5	19.7	54.2	155.0	9.6	0.4	7.9
Open continuously	2,437	53.6	49.2	17.7	34.9	71.0	17.7	0.4	7.3

Table C24. Natural gas consumption and expenditure intensities, 2012

	Natural gas consumption								
				Distribution of building-level intensities (cubic feet/square foot)			Natural gas expenditures		
	per building (thousand cubic feet)	per square foot (cubic feet)	per worker (thousand cubic feet)	25th percentile	Median	75th percentile	per building (thousand dollars)	per square foot (dollars)	per thousand cubic feet (dollars)
All buildings	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3	7.9
Ownership and occupancy									
Nongovernment owned	685	38.3	35.4	11.9	27.0	56.8	5.4	0.3	7.9
Owner occupied	659	42.3	47.2	13.6	28.7	57.1	5.0	0.3	7.6
Leased to tenant(s)	650	35.6	27.4	11.5	27.1	64.3	5.4	0.3	8.4
Owner occupied and leased	1,077	34.1	29.8	7.3	17.7	38.2	8.3	0.3	7.7
Unoccupied	177	12.5	N	5.8	18.9	29.5	1.6	0.1	9.0
Government owned	1,102	34.3	34.2	13.3	25.5	48.6	8.5	0.3	7.8
Federal	1,395	34.0	23.2	14.3	22.9	37.9	10.8	0.3	7.7
State	1,644	42.0	40.3	10.6	28.2	53.3	12.5	0.3	7.6
Local	913	31.2	33.0	13.9	25.6	48.6	7.2	0.2	7.8
Party responsible for operation and maintenance of energy systems									
Building owner	741	36.8	34.5	12.2	26.4	53.3	5.8	0.3	7.8
Business owner or tenant	774	40.6	40.3	11.7	27.5	69.8	6.4	0.3	8.3
Property management	869	33.3	22.0	10.8	30.4	72.3	6.9	0.3	8.0
Other	814	43.0	45.9	18.8	42.2	83.7	6.4	0.3	7.8
Provider of direct input on energy-related equipment purchases									
Building owner	736	36.7	34.4	12.2	26.4	53.1	5.8	0.3	7.8
Business owner or tenant	822	42.8	40.4	10.8	32.2	75.3	6.7	0.4	8.1
Property management	911	32.3	29.1	16.0	43.0	155.0	6.6	0.2	7.2
Other	811	40.9	44.9	13.6	25.0	76.9	7.0	0.4	8.6
Number of establishments									
One	664	40.1	40.0	13.3	28.2	59.6	5.2	0.3	7.8
2 to 5	814	33.6	31.4	9.2	22.7	45.6	6.5	0.3	8.0
6 to 10	1,153	33.8	26.7	7.6	24.5	43.0	9.7	0.3	8.4
11 to 20	2,310	39.7	29.3	13.7	32.6	57.2	18.5	0.3	8.0
More than 20	5,786	22.8	15.9	6.3	22.5	60.5	49.0	0.2	8.5
Currently unoccupied	231	14.1	N	5.8	20.7	30.5	1.9	0.1	8.3
Predominant exterior wall material									
Brick, stone, or stucco	793	39.0	37.0	13.0	29.4	63.0	6.3	0.3	7.9
Concrete (block or poured)	827	35.9	34.9	10.6	26.1	52.2	6.6	0.3	8.0
Concrete panels	1,850	34.2	32.8	4.0	17.4	55.4	12.9	0.2	7.0
Siding or shingles	368	45.3	43.3	16.1	29.8	58.2	3.1	0.4	8.4
Metal panels	336	28.0	34.6	11.8	20.4	44.2	2.8	0.2	8.4
Window glass	3,407	44.4	22.2	18.4	77.5	344.5	28.2	0.4	8.3
Other	Q	46.0	44.9	11.9	20.2	30.1	Q	0.3	6.6
No one major type	865	30.6	Q	20.5	36.0	53.0	6.9	0.3	8.0

Table C24. Natural gas consumption and expenditure intensities, 2012

	Natural gas consumption			Distribution of building-level intensities (cubic feet/square foot)			Natural gas expenditures		
	per building (thousand cubic feet)	per square foot (cubic feet)	per worker (thousand cubic feet)	25th percentile	Median	75th percentile	per building (thousand dollars)	per square foot (dollars)	per thousand cubic feet (dollars)
	All buildings	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3
Predominant roof material									
Metal surfacing	365	30.1	34.8	11.8	23.5	47.6	3.1	0.3	8.4
Synthetic or rubber	1,334	41.9	39.4	14.6	29.6	62.0	10.4	0.3	7.8
Built-up	1,102	35.5	31.6	9.2	24.9	55.5	8.3	0.3	7.6
Slate or tile shingles	506	39.7	41.8	14.8	38.2	73.2	4.1	0.3	8.1
Wooden materials (including shingles)	506	65.7	63.2	11.3	34.0	72.7	3.6	0.5	7.2
Asphalt, fiberglass, or other shingles	445	36.3	32.1	12.1	28.3	54.9	3.6	0.3	8.1
Concrete	1,271	27.5	16.1	4.0	18.6	38.7	9.8	0.2	7.7
Other	1,065	32.8	38.9	10.7	20.2	40.6	8.8	0.3	8.3
No one major type	939	23.5	Q	15.2	19.1	53.6	9.1	0.2	9.7
Roof characteristics									
Roof tilt									
Flat	1,199	39.6	33.5	11.6	27.9	65.1	9.2	0.3	7.7
Shallow pitch	460	32.4	36.1	11.1	24.5	49.7	3.7	0.3	8.1
Steeper pitch	418	36.2	43.2	14.4	28.5	52.1	3.5	0.3	8.3
Cool roof	1,314	40.9	37.0	12.6	28.4	61.6	10.1	0.3	7.7
Renovations in buildings constructed before 2008 (more than one may apply)									
Any type of renovation	928	38.8	35.1	13.0	28.7	58.2	7.3	0.3	7.8
Addition or annex	1,619	45.2	46.2	13.1	28.7	56.9	12.0	0.3	7.4
Reduction in floorspace	1,627	49.0	31.6	11.9	36.0	67.6	11.9	0.4	7.3
Roof replacement	1,059	41.1	36.9	13.6	26.8	55.9	8.3	0.3	7.8
Exterior wall replacement	1,054	37.2	35.5	8.6	23.9	48.6	8.1	0.3	7.7
Interior wall reconfiguration	1,073	39.1	30.6	11.1	24.9	47.9	8.3	0.3	7.7
Window replacement	1,023	40.7	35.0	14.4	27.9	55.9	7.9	0.3	7.8
HVAC equipment upgrade	1,143	40.2	35.7	14.0	27.1	56.5	8.8	0.3	7.7
Lighting upgrade	1,233	40.9	37.2	13.8	29.8	58.3	9.4	0.3	7.6
Electrical upgrade	1,114	43.4	38.6	14.2	28.5	60.3	8.6	0.3	7.7
Plumbing system upgrade	1,214	47.6	40.4	15.1	30.5	72.1	9.3	0.4	7.7
Insulation upgrade	1,040	44.5	39.7	14.2	26.8	49.7	8.1	0.4	7.8
Fire, safety, or security upgrade	1,336	41.9	35.9	12.0	26.8	56.5	10.2	0.3	7.6
Structural upgrade	1,469	52.1	53.7	12.7	25.2	44.7	10.6	0.4	7.2
Other	770	23.9	19.9	16.1	42.5	77.4	6.2	0.2	8.0
No renovations	558	35.0	34.7	11.7	25.4	53.1	4.5	0.3	8.0
Buildings constructed 2008 or later	1,128	40.7	38.8	10.0	19.3	61.1	8.6	0.3	7.6

Table C24. Natural gas consumption and expenditure intensities, 2012

	Natural gas consumption								
	per building (thousand cubic feet)	per square foot (cubic feet)	per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)			Natural gas expenditures		
				25th percentile	Median	75th percentile	per building (thousand dollars)	per square foot (dollars)	per thousand cubic feet (dollars)
All buildings	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3	7.9
Energy sources (more than one may apply)									
Electricity	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3	7.9
Natural gas	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3	7.9
Fuel oil	3,713	44.5	34.1	10.8	28.3	58.7	27.2	0.3	7.3
District heat	6,206	36.9	23.3	2.3	11.9	49.1	44.0	0.3	7.1
District chilled water	6,245	53.5	40.9	4.8	29.5	106.3	44.2	0.4	7.1
Propane	2,053	42.0	58.1	7.3	22.7	52.3	14.9	0.3	7.3
Other	1,470	40.1	41.1	8.8	22.8	43.1	11.4	0.3	7.8
Space-heating energy sources									
Natural gas	736	38.8	37.2	13.0	27.1	54.0	5.8	0.3	7.8
Natural gas main	743	40.2	38.7	14.0	28.5	55.0	5.8	0.3	7.8
Natural gas secondary	681	30.2	27.7	7.2	18.8	43.0	5.3	0.2	7.7
Other excluding natural gas	890	28.5	24.3	5.8	22.4	68.2	7.3	0.2	8.2
Buildings without heating	541	41.1	48.0	2.2	25.8	118.9	4.6	0.4	8.5
Primary space-heating energy source									
Electricity	643	28.3	27.2	7.0	21.9	55.4	5.3	0.2	8.3
Natural gas	743	40.2	38.7	14.0	28.5	55.0	5.8	0.3	7.8
Fuel oil	520	19.0	16.4	7.6	22.4	52.2	5.0	0.2	9.6
District heat	6,122	37.1	23.6	2.2	11.9	49.1	43.2	0.3	7.1
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling energy sources									
Natural gas	4,790	77.9	54.4	27.0	41.6	53.7	35.6	0.6	7.4
Other excluding natural gas	769	36.8	34.4	12.1	26.3	55.3	6.0	0.3	7.9
Buildings without cooling	293	37.3	58.8	13.6	32.7	54.5	2.6	0.3	9.0
Water-heating energy sources									
Natural gas	983	43.7	41.2	14.1	30.9	67.6	7.6	0.3	7.7
Other excluding natural gas	435	24.5	21.9	10.8	23.5	43.8	3.7	0.2	8.4
Buildings without water heating	197	22.0	42.2	8.5	18.9	48.2	1.5	0.2	7.8
Cooking energy sources									
Natural gas	1,632	48.7	46.7	20.9	49.4	127.2	12.5	0.4	7.7
Other excluding natural gas	577	32.0	29.3	10.8	24.5	46.1	4.6	0.3	7.9
Buildings without cooking	426	28.4	26.5	10.5	22.8	43.4	3.5	0.2	8.2

Table C24. Natural gas consumption and expenditure intensities, 2012

	Natural gas consumption								
	per building (thousand cubic feet)	per square foot (cubic feet)	per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)			Natural gas expenditures		
				25th percentile	Median	75th percentile	per building (thousand dollars)	per square foot (dollars)	per thousand cubic feet (dollars)
All buildings	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3	7.9
Energy end uses (more than one may apply)									
Buildings with space heating	751	37.3	35.1	12.3	26.6	54.5	5.9	0.3	7.9
Buildings with cooling	787	37.4	34.7	12.1	26.5	55.3	6.2	0.3	7.8
Buildings with water heating	786	37.8	35.1	12.6	27.1	55.8	6.2	0.3	7.9
Buildings with cooking	1,295	45.4	43.1	16.6	38.7	93.1	10.0	0.4	7.7
Buildings with manufacturing	785	32.2	32.1	7.2	19.8	40.0	6.7	0.3	8.5
Buildings with electricity generation	3,088	41.1	35.3	12.2	28.4	55.7	23.2	0.3	7.5
Percent of floorspace heated									
Not heated	541	41.1	48.0	2.2	25.8	118.9	4.6	0.4	8.5
1 to 50	373	21.0	34.0	5.6	13.6	31.8	3.0	0.2	8.2
51 to 99	930	38.8	37.6	11.3	25.0	59.8	7.4	0.3	7.9
100	770	39.2	34.5	14.9	29.8	58.2	6.0	0.3	7.8
Percent of floorspace cooled									
Not cooled	293	37.3	58.8	13.6	32.7	54.5	2.6	0.3	9.0
1 to 50	586	31.3	46.7	10.1	24.6	49.9	4.7	0.3	8.0
51 to 99	1,100	38.0	35.1	12.6	26.3	60.8	8.7	0.3	7.9
100	755	39.8	31.4	13.3	28.4	57.0	5.8	0.3	7.7
Heating equipment (more than one may apply)									
Heat pumps	1,037	31.9	30.1	7.4	18.5	48.2	8.5	0.3	8.2
Furnaces	434	33.8	33.6	13.0	23.4	44.3	3.6	0.3	8.4
Individual space heaters	687	33.6	36.4	13.6	27.9	53.5	5.4	0.3	7.9
District heat	6,207	37.2	23.6	2.3	11.9	49.1	44.0	0.3	7.1
Boilers	2,347	48.0	41.7	21.8	39.2	68.0	18.0	0.4	7.7
Packaged heating units	698	35.3	35.0	11.6	26.2	55.2	5.5	0.3	7.9
Other	1,472	44.1	58.3	19.7	29.9	56.0	12.6	0.4	8.6
Cooling equipment (more than one may apply)									
Residential-type central air conditioners	401	38.7	38.3	13.4	25.2	54.4	3.3	0.3	8.2
Heat pumps	943	31.2	29.2	8.9	20.9	55.2	7.8	0.3	8.3
Individual air conditioners	947	40.0	40.7	13.4	29.7	56.8	7.8	0.3	8.2
District chilled water	6,245	53.5	40.9	4.8	29.5	106.3	44.2	0.4	7.1
Central chillers	4,608	42.5	33.1	12.2	29.6	53.7	33.6	0.3	7.3
Packaged air conditioning units	981	36.8	35.4	11.0	26.5	56.0	7.6	0.3	7.8
Swamp coolers	1,007	45.1	50.5	16.9	43.0	123.9	7.5	0.3	7.5
Other	Q	35.0	34.8	7.3	18.1	52.0	Q	0.3	8.5
Main equipment replaced since 1990 (more than one may apply)									
Heating	642	36.6	35.6	12.6	28.0	60.0	5.1	0.3	8.0
Cooling	692	37.2	34.9	13.1	28.3	59.2	5.5	0.3	8.0

Table C24. Natural gas consumption and expenditure intensities, 2012

	Natural gas consumption								
	per building (thousand cubic feet)	per square foot (cubic feet)	per worker (thousand cubic feet)	Distribution of building-level intensities (cubic feet/square foot)			Natural gas expenditures		
				25th percentile	Median	75th percentile	per building (thousand dollars)	per square foot (dollars)	per thousand cubic feet (dollars)
All buildings	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3	7.9
Water-heating equipment									
Centralized system	666	40.6	37.9	13.6	28.5	58.1	5.2	0.3	7.9
Distributed system	646	30.5	28.7	8.6	21.1	47.9	5.2	0.2	8.0
Combination of centralized and distributed system	1,867	35.5	32.2	12.3	25.1	57.8	14.7	0.3	7.9
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar or concession stand	3,691	45.2	43.2	10.4	27.5	67.5	27.6	0.3	7.5
Fast food or small restaurant	2,745	43.4	39.8	19.7	47.9	93.4	21.3	0.3	7.8
Cafeteria or large restaurant	5,511	43.9	38.1	11.5	27.7	53.0	40.5	0.3	7.4
Commercial kitchen/ food preparation area	2,974	46.6	49.0	15.5	32.4	66.3	22.4	0.4	7.5
Small kitchen area	868	36.7	39.4	10.7	24.3	46.9	6.9	0.3	8.0
HVAC conservation features (more than one may apply)									
Economizer cycle	2,248	40.1	35.5	11.4	26.9	59.6	17.1	0.3	7.6
Regular HVAC maintenance	975	38.3	34.2	12.6	28.4	58.7	7.6	0.3	7.8
Building automation system (BAS) ²	2,069	38.6	34.1	9.6	24.5	49.1	15.6	0.3	7.5
Window and interior lighting features (more than one may apply)									
Multipaned windows	923	39.0	37.3	13.2	28.2	56.1	7.2	0.3	7.8
Tinted window glass	1,082	38.6	33.6	10.0	24.5	54.2	8.3	0.3	7.7
Reflective window glass	1,458	43.8	36.7	9.3	24.2	58.9	11.1	0.3	7.6
External overhangs or awnings	898	43.3	41.3	13.1	30.0	71.0	7.0	0.3	7.8
Skylights or atriums	1,821	39.7	40.3	9.2	23.8	49.1	14.0	0.3	7.7
Light scheduling	1,492	39.2	34.2	12.1	27.5	57.9	11.6	0.3	7.8
Occupancy sensors	1,875	38.6	34.2	10.5	28.6	52.2	14.5	0.3	7.7
Multi-level lighting or dimming	2,132	47.8	42.6	16.7	42.3	89.6	16.1	0.4	7.5
Daylight harvesting	2,505	39.1	31.7	17.4	29.8	59.8	19.7	0.3	7.9
Demand responsive lighting	1,230	33.7	33.6	12.5	27.5	55.4	10.4	0.3	8.5
Building automation system (BAS) for lighting ²	2,305	34.8	33.2	10.8	24.0	56.7	17.9	0.3	7.8
Equipment usage reduced when building not in full use (more than one may apply)									
Heating	707	34.9	32.9	11.6	25.6	51.5	5.6	0.3	8.0
Cooling	735	35.1	32.8	11.5	25.3	51.6	5.8	0.3	8.0
Lighting	740	37.3	34.7	12.3	26.6	54.5	5.9	0.3	7.9

Table C24. Natural gas consumption and expenditure intensities, 2012

	Natural gas consumption								
				Distribution of building-level intensities (cubic feet/square foot)			Natural gas expenditures		
	per building (thousand cubic feet)	per square foot (cubic feet)	per worker (thousand cubic feet)	25th percentile	Median	75th percentile	per building (thousand dollars)	per square foot (dollars)	per thousand cubic feet (dollars)
All buildings	748	37.3	35.2	12.1	26.6	55.3	5.9	0.3	7.9
Annual consumption (hundred cubic feet)									
1,000 or less	50	7.4	7.0	4.9	11.6	22.7	0.6	0.1	12.3
1,001 to 5,000	239	20.6	18.7	17.8	31.5	58.1	2.2	0.2	9.2
5,001 to 10,000	713	29.0	29.7	24.5	50.7	112.0	5.9	0.2	8.3
10,001 to 25,000	1,550	40.1	37.4	32.4	68.6	175.8	12.1	0.3	7.8
25,001 to 50,000	3,449	42.4	43.4	35.3	56.5	121.7	26.6	0.3	7.7
50,001 to 100,000	6,711	52.7	54.6	39.5	67.4	124.4	50.8	0.4	7.6
Over 100,000	26,592	88.3	71.4	58.6	106.3	140.2	185.9	0.6	7.0

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and C of the 2012 Commercial Buildings Energy Consumption Survey.

Table C25. Natural gas consumption and conditional energy intensity by Census region, 2012

	Total natural gas consumption (billion cubic feet)				Total floorspace of buildings using natural gas (million square feet)				Natural gas energy intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All buildings	487	627	600	479	11,068	15,025	19,900	12,732	44.0	41.7	30.2	37.6
Building floorspace (square feet)												
1,001 to 5,000	40	65	91	54	478	1,126	1,266	888	83.1	57.5	71.6	61.1
5,001 to 10,000	32	71	83	55	630	1,378	1,536	1,273	51.2	51.3	54.3	43.5
10,001 to 25,000	59	81	83	74	1,608	2,185	2,632	2,398	36.4	37.2	31.4	31.0
25,001 to 50,000	46	100	74	57	1,134	2,628	2,639	1,747	40.6	38.0	28.0	32.6
50,001 to 100,000	85	100	97	48	2,119	2,181	4,004	1,631	40.2	45.7	24.2	29.4
100,001 to 200,000	101	69	56	57	2,155	1,866	3,479	1,915	46.8	37.1	16.0	30.0
200,001 to 500,000	75	92	56	79	1,717	2,391	2,378	1,808	43.9	38.3	23.6	43.8
Over 500,000	49	50	61	Q	1,226	1,270	1,967	1,071	40.0	39.2	31.1	50.1
Principal building activity												
Education	77	106	61	40	1,645	2,735	3,715	1,426	46.6	38.8	16.5	27.9
Food sales	Q	Q	10	Q	Q	Q	169	Q	Q	Q	59.1	Q
Food service	26	49	103	45	196	300	577	320	130.7	162.4	178.0	139.7
Health care	62	62	78	57	898	722	1,010	662	68.8	85.7	77.0	86.0
Inpatient	46	48	73	46	431	427	830	424	107.4	111.7	88.3	109.0
Outpatient	15	14	4	11	466	295	180	239	33.1	48.0	24.8	45.2
Lodging	34	41	66	74	785	838	1,982	1,314	43.9	49.3	33.1	56.3
Mercantile	52	80	77	75	1,290	1,853	2,957	2,394	40.4	43.0	26.1	31.4
Retail (other than mall)	13	29	14	16	506	869	935	1,060	25.1	33.9	15.1	15.2
Enclosed and strip malls	39	50	63	59	784	984	2,021	1,334	50.3	50.9	31.2	44.4
Office	93	84	47	52	2,704	2,535	2,718	2,333	34.3	33.2	17.2	22.2
Public assembly	28	53	28	23	664	1,316	1,061	847	42.6	40.5	26.0	26.7
Public order and safety	Q	Q	10	Q	Q	Q	419	Q	Q	Q	23.4	Q
Religious worship	19	27	24	15	730	705	1,081	501	25.8	38.9	22.2	29.1
Service	18	47	42	12	286	1,223	934	348	64.8	38.1	44.6	35.3
Warehouse and storage	31	37	29	39	1,134	1,819	2,526	1,528	27.6	20.3	11.3	25.5
Other	Q	Q	24	Q	Q	Q	584	313	Q	Q	41.6	74.0
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year constructed												
Before 1920	34	27	20	4	988	743	379	210	34.1	36.9	53.3	18.8
1920 to 1945	49	53	20	19	1,239	1,280	773	500	39.4	41.7	25.8	38.7
1946 to 1959	56	61	40	37	1,021	1,447	1,819	1,105	54.9	42.3	22.0	33.7
1960 to 1969	65	92	79	71	1,741	2,238	2,108	1,466	37.5	41.0	37.3	48.4
1970 to 1979	87	93	89	62	1,552	2,110	2,314	2,003	55.9	44.3	38.6	31.0
1980 to 1989	43	99	113	71	1,148	2,143	4,045	2,551	37.1	46.3	28.0	28.0
1990 to 1999	75	80	95	80	1,551	2,253	3,282	2,075	48.5	35.3	29.0	38.6
2000 to 2003	36	42	43	32	841	1,168	1,810	904	43.2	36.4	23.8	35.5
2004 to 2007	20	36	53	Q	333	977	1,711	1,074	58.6	36.9	30.7	55.2
2008 to 2012	23	42	48	Q	652	666	1,660	843	35.1	63.0	28.9	50.6
Climate region¹												
Very cold/Cold	323	561	N	186	7,259	13,130	N	4,123	44.5	42.7	N	45.2
Mixed-humid	164	65	411	N	3,809	1,895	13,656	N	43.1	34.5	30.1	N
Mixed-dry/Hot-dry	N	N	Q	226	N	N	Q	6,576	N	N	24.0	34.4
Hot-humid	N	N	167	N	N	N	5,300	N	N	N	31.4	N
Marine	N	N	N	67	N	N	N	2,033	N	N	N	32.7

Table C25. Natural gas consumption and conditional energy intensity by Census region, 2012

	Total natural gas consumption (billion cubic feet)				Total floorspace of buildings using natural gas (million square feet)				Natural gas energy intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All buildings	487	627	600	479	11,068	15,025	19,900	12,732	44.0	41.7	30.2	37.6
Number of floors												
One	120	262	300	214	2,569	6,030	9,737	6,160	46.7	43.5	30.8	34.8
Two	142	141	111	105	3,146	4,042	4,304	3,172	45.0	35.0	25.7	33.1
Three	56	92	46	25	1,609	2,112	1,572	791	34.9	43.6	29.1	31.5
Four to nine	132	102	110	89	2,664	2,124	3,277	1,699	49.5	47.9	33.6	52.1
Ten or more	38	29	34	Q	1,080	716	1,010	909	34.9	40.8	33.6	Q
Number of workers (main shift)												
Fewer than 5	50	87	72	49	1,238	2,532	2,515	1,573	40.0	34.4	28.8	31.2
5 to 9	34	54	64	44	859	1,475	1,783	1,238	39.8	36.9	35.9	35.8
10 to 19	37	89	101	64	1,063	1,622	2,254	1,860	34.6	54.6	44.8	34.6
20 to 49	59	117	107	87	1,436	2,898	3,564	2,714	40.9	40.3	30.0	32.0
50 to 99	92	105	101	54	1,782	2,409	4,346	1,783	51.6	43.6	23.1	30.4
100 to 249	100	83	67	79	2,198	2,128	3,000	1,555	45.5	39.0	22.2	51.0
250 or more	116	92	89	101	2,492	1,961	2,438	2,010	46.5	46.8	36.5	50.4
Weekly operating hours												
Fewer than 40	14	36	25	19	485	1,208	1,242	770	29.9	29.9	20.4	24.5
40 to 48	44	83	64	62	1,453	2,547	3,761	2,198	30.3	32.6	16.9	28.0
49 to 60	72	121	95	72	2,473	3,581	4,870	3,081	29.2	33.8	19.5	23.4
61 to 84	114	144	115	85	2,600	3,144	3,180	2,570	44.0	45.8	36.1	33.1
85 to 167	96	88	101	55	1,547	1,797	2,049	1,341	62.0	48.8	49.5	41.0
Open continuously	146	155	201	186	2,510	2,748	4,798	2,771	58.2	56.4	41.8	67.2
Ownership and occupancy												
Nongovernment owned	358	474	472	400	8,516	11,040	14,603	10,322	42.0	42.9	32.3	38.8
Owner occupied	170	265	227	206	3,786	5,701	6,778	4,276	45.0	46.5	33.4	48.2
Leased to tenant(s)	130	140	196	152	3,304	3,668	5,930	4,459	39.5	38.1	33.0	34.2
Owner occupied and leased	56	67	50	41	1,366	1,546	1,861	1,482	41.2	43.4	26.6	27.3
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government owned	129	153	128	79	2,552	3,986	5,298	2,409	50.7	38.3	24.2	32.8
Federal	Q	Q	11	Q	Q	Q	422	Q	Q	Q	25.2	Q
State	Q	36	42	27	895	821	1,434	788	66.6	44.4	29.5	34.1
Local	67	109	75	43	1,597	2,920	3,441	1,478	41.9	37.5	21.8	29.1
Party responsible for operation and maintenance of energy systems												
Building owner	397	550	472	387	9,348	13,080	16,364	10,308	42.5	42.0	28.9	37.6
Business owner or tenant	74	66	111	83	1,421	1,573	3,011	2,235	52.2	41.7	37.0	37.2
Property management	Q	Q	10	Q	Q	Q	343	Q	Q	Q	29.4	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Provider of direct input on energy-related equipment purchases												
Building owner	406	564	486	412	9,496	13,446	16,985	11,019	42.7	41.9	28.6	37.4
Business owner or tenant	58	49	90	61	1,084	1,150	2,314	1,477	54.0	42.4	38.9	41.2
Property management	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	22	Q	Q	328	481	Q	Q	30.4	45.1	Q

Table C25. Natural gas consumption and conditional energy intensity by Census region, 2012

	Total natural gas consumption (billion cubic feet)				Total floorspace of buildings using natural gas (million square feet)				Natural gas energy intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All buildings	487	627	600	479	11,068	15,025	19,900	12,732	44.0	41.7	30.2	37.6
Number of establishments												
One	329	417	417	327	6,832	9,780	12,802	7,742	48.2	42.6	32.6	42.2
2 to 5	93	142	104	79	2,206	3,459	4,184	2,584	42.1	41.1	24.8	30.7
6 to 10	21	27	26	30	575	709	977	831	36.4	38.5	27.1	36.0
11 to 20	27	23	36	24	719	436	970	637	37.0	53.5	37.2	37.1
More than 20	17	16	16	17	675	518	869	801	25.0	30.2	18.8	20.6
Currently unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant exterior wall material												
Brick, stone, or stucco	258	344	329	202	6,045	7,489	10,487	4,978	42.6	45.9	31.3	40.5
Concrete (block or poured)	118	134	153	117	2,711	3,379	4,818	3,609	43.4	39.6	31.8	32.4
Concrete panels	35	62	41	Q	656	1,351	1,892	2,039	53.3	46.1	21.6	31.9
Siding or shingles	24	37	29	42	629	920	455	884	38.1	39.7	63.2	47.0
Metal panels	Q	39	41	22	443	1,325	1,870	748	Q	29.1	22.0	28.8
Window glass	Q	Q	Q	14	Q	Q	Q	250	Q	Q	Q	57.3
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant roof material												
Metal surfacing	22	62	101	50	744	2,093	3,450	1,538	28.9	29.7	29.4	32.6
Synthetic or rubber	213	257	181	179	4,618	6,049	5,503	3,620	46.1	42.5	32.8	49.5
Built-up	137	151	164	116	2,947	3,437	5,926	3,716	46.6	43.8	27.7	31.3
Slate or tile shingles	30	13	29	40	627	330	1,048	795	47.2	39.3	Q	50.2
Wooden materials (including shingles)	Q	Q	16	11	Q	Q	195	246	Q	Q	80.5	44.9
Asphalt, fiberglass, or other shingles	64	130	95	69	1,695	2,677	3,242	2,283	37.8	48.6	29.5	30.3
Concrete	8	Q	Q	5	211	Q	Q	256	37.0	Q	Q	20.6
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Roof characteristics												
Roof tilt												
Flat	357	387	371	304	7,900	8,833	11,477	7,623	45.2	43.9	32.3	39.9
Shallow pitch	74	133	139	124	1,456	3,847	5,593	3,604	51.0	34.5	24.8	34.3
Steeper pitch	56	106	90	51	1,712	2,345	2,831	1,505	32.7	45.3	31.9	34.2
Cool roof	127	143	155	162	2,397	3,196	5,104	3,655	53.1	44.8	30.4	44.3

Table C25. Natural gas consumption and conditional energy intensity by Census region, 2012

	Total natural gas consumption (billion cubic feet)				Total floorspace of buildings using natural gas (million square feet)				Natural gas energy intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All buildings	487	627	600	479	11,068	15,025	19,900	12,732	44.0	41.7	30.2	37.6
Renovations in buildings constructed before 2008 (more than one may apply)												
Any type of renovation	309	340	304	247	6,944	8,306	9,919	5,776	44.4	40.9	30.7	42.8
Addition or annex	98	141	127	91	1,948	3,337	3,299	1,521	50.1	42.4	38.4	59.8
Reduction in floorspace	Q	11	18	Q	Q	233	454	Q	Q	46.2	40.0	Q
Roof replacement	192	196	160	117	4,074	4,496	5,024	2,558	47.0	43.5	31.9	45.6
Exterior wall replacement	23	34	37	33	730	881	1,061	723	31.4	38.1	34.6	45.6
Interior wall reconfiguration	156	176	147	150	3,991	4,278	4,356	3,450	39.2	41.1	33.8	43.4
Window replacement	93	101	98	86	2,362	2,568	2,559	1,798	39.5	39.4	38.2	47.6
HVAC equipment upgrade	216	217	207	181	5,000	5,473	6,252	3,712	43.2	39.7	33.2	48.7
Lighting upgrade	197	223	190	180	4,618	5,090	5,830	3,760	42.7	43.8	32.7	47.8
Electrical upgrade	139	142	124	133	3,155	3,163	3,728	2,328	44.0	44.8	33.2	57.2
Plumbing system upgrade	131	121	126	125	2,679	2,818	3,040	2,012	48.8	42.8	41.4	62.1
Insulation upgrade	61	67	67	Q	1,378	1,784	1,615	1,116	44.2	37.5	41.8	60.0
Fire, safety, or security upgrade	151	142	146	116	3,540	3,138	4,102	2,447	42.6	45.2	35.6	47.4
Structural upgrade	16	27	40	Q	481	733	735	885	33.2	37.3	54.9	72.3
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No renovations	156	245	248	189	3,472	6,053	8,321	6,112	44.9	40.5	29.8	31.0
Buildings constructed 2008 or later	23	42	48	Q	652	666	1,660	843	35.1	63.0	28.9	50.6
Energy sources (more than one may apply)												
Electricity	487	627	600	479	11,068	15,025	19,900	12,732	44.0	41.7	30.2	37.6
Natural gas	487	627	600	479	11,068	15,025	19,900	12,732	44.0	41.7	30.2	37.6
Fuel oil	154	151	156	148	3,508	3,071	4,455	2,629	43.8	49.1	35.0	56.2
District heat	Q	5	16	Q	1,042	367	903	548	Q	14.0	Q	87.7
District chilled water	Q	5	26	Q	Q	329	1,100	483	86.7	15.4	23.7	111.8
Propane	17	40	36	Q	534	945	971	946	32.3	42.0	37.4	Q
Other	40	19	13	33	805	631	471	730	49.7	30.3	28.6	45.4
Space-heating energy sources												
Natural gas	440	614	483	386	9,352	14,031	15,438	10,690	47.0	43.7	31.3	36.1
Natural gas main	417	584	396	329	8,366	13,084	12,312	9,226	49.8	44.7	32.1	35.7
Natural gas secondary	23	29	87	57	986	947	3,126	1,464	23.4	31.0	27.9	39.2
Other excluding natural gas	Q	13	106	81	1,709	971	4,106	1,832	26.8	13.0	25.9	44.3
Buildings without heating	Q	Q	11	Q	Q	Q	357	Q	Q	Q	31.2	Q
Primary space-heating energy source												
Electricity	28	35	176	88	1,238	1,385	6,271	2,655	22.4	25.6	28.0	33.3
Natural gas	417	584	396	329	8,366	13,084	12,312	9,226	49.8	44.7	32.1	35.7
Fuel oil	5	N	Q	Q	369	N	Q	Q	14.8	N	Q	Q
District heat	Q	4	16	Q	1,015	352	892	532	Q	12.2	Q	90.3
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling energy sources												
Natural gas	27	Q	Q	Q	305	Q	Q	Q	89.6	Q	Q	Q
Other excluding natural gas	442	589	590	447	10,294	14,233	19,570	12,069	42.9	41.4	30.2	37.0
Buildings without cooling	18	19	5	27	469	572	212	574	37.8	32.9	23.0	46.6

Table C25. Natural gas consumption and conditional energy intensity by Census region, 2012

	Total natural gas consumption (billion cubic feet)				Total floorspace of buildings using natural gas (million square feet)				Natural gas energy intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All buildings	487	627	600	479	11,068	15,025	19,900	12,732	44.0	41.7	30.2	37.6
Main equipment replaced since 1990 (more than one may apply)												
Heating	175	231	233	132	4,060	5,843	6,981	4,174	43.1	39.5	33.3	31.7
Cooling	194	267	257	143	4,819	6,303	7,780	4,191	40.3	42.3	33.0	34.0
Water-heating equipment												
Centralized system	315	426	369	269	6,761	9,489	10,764	6,990	46.5	44.9	34.3	38.5
Distributed system	61	67	53	69	1,675	2,054	2,575	1,908	36.3	32.8	20.7	36.1
Combination of centralized and distributed system	108	126	163	128	2,457	3,174	5,791	3,381	44.1	39.8	28.2	37.7
Food preparation or serving areas in non-food service buildings (more than one may apply)												
Snack bar or concession stand	77	91	93	94	1,465	1,950	2,725	1,727	52.6	46.4	34.3	54.7
Fast food or small restaurant	69	79	112	103	1,523	1,548	2,973	2,300	45.1	51.0	37.6	44.8
Cafeteria or large restaurant	148	143	158	123	2,993	3,118	4,935	1,998	49.5	45.9	32.0	61.6
Commercial kitchen/food preparation area	164	178	169	146	2,725	3,656	5,103	2,598	60.1	48.8	33.1	56.2
Small kitchen area	95	124	93	87	2,430	3,048	3,368	2,038	39.1	40.7	27.6	42.6
HVAC conservation features (more than one may apply)												
Economizer cycle	262	290	197	241	5,650	6,831	6,384	5,817	46.4	42.5	30.9	41.4
Regular HVAC maintenance	442	561	514	425	9,847	12,918	16,835	11,091	44.9	43.4	30.5	38.4
Building automation system (BAS) ²	246	285	275	268	5,485	6,567	9,665	6,105	44.8	43.4	28.4	43.9
Window and interior lighting features (more than one may apply)												
Multipaned windows	380	537	446	347	8,464	12,564	14,525	8,221	44.8	42.7	30.7	42.2
Tinted window glass	252	331	375	301	5,185	7,534	12,054	7,858	48.6	43.9	31.1	38.3
Reflective window glass	95	147	123	163	1,813	3,378	3,540	3,320	52.6	43.4	34.8	49.0
External overhangs or awnings	191	261	292	262	3,425	5,578	8,398	5,818	55.6	46.7	34.8	45.0
Skylights or atriums	164	143	163	194	3,298	3,615	5,266	4,566	49.6	39.6	30.9	42.5
Light scheduling	212	251	214	227	4,785	5,765	6,876	5,684	44.4	43.5	31.2	40.0
Occupancy sensors	271	287	230	253	6,006	6,646	7,989	6,332	45.2	43.2	28.8	39.9
Multi-level lighting or dimming	97	134	150	179	1,967	2,607	3,924	3,205	49.5	51.3	38.1	55.8
Daylight harvesting	53	47	36	57	894	1,311	1,348	1,368	59.0	36.2	26.5	41.3
Demand responsive lighting	25	31	36	32	468	878	1,093	1,240	52.6	35.3	33.2	25.9
Building automation system (BAS) for lighting ²	90	86	71	80	1,823	2,124	2,991	2,461	49.3	40.6	23.6	32.5
Equipment usage reduced when building not in full use (more than one may apply)												
Heating	385	498	422	330	9,195	11,986	15,384	10,253	41.8	41.6	27.4	32.2
Cooling	378	474	431	320	8,855	11,394	15,634	9,844	42.7	41.6	27.6	32.5
Lighting	457	594	553	449	10,410	14,154	18,539	11,930	43.9	42.0	29.8	37.7

Table C25. Natural gas consumption and conditional energy intensity by Census region, 2012

	Total natural gas consumption (billion cubic feet)				Total floorspace of buildings using natural gas (million square feet)				Natural gas energy intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All buildings	487	627	600	479	11,068	15,025	19,900	12,732	44.0	41.7	30.2	37.6
Annual consumption (hundred cubic feet)												
1,000 or less	5	16	17	13	686	1,244	3,078	1,945	7.7	13.0	5.6	6.4
1,001 to 5,000	49	83	83	60	2,125	3,218	4,932	3,061	22.9	25.7	16.9	19.7
5,001 to 10,000	43	60	81	47	1,478	1,737	3,363	1,408	29.2	34.7	24.1	33.6
10,001 to 25,000	65	129	141	113	1,832	3,193	3,682	2,450	35.5	40.4	38.4	45.9
25,001 to 50,000	72	95	82	56	1,657	1,895	2,138	1,466	43.5	49.9	38.2	37.9
50,001 to 100,000	73	84	70	50	1,387	1,668	1,300	924	52.6	50.5	54.1	54.7
Over 100,000	180	160	125	140	1,904	2,070	1,407	1,479	94.6	77.2	89.1	94.8

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

Notes: ● Because of rounding, data may not sum to totals. ● See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/>
● Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. ● HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and C of the 2012 Commercial Buildings Energy Consumption Survey.

Table C26. Natural gas expenditures by Census region, 2012

	Total natural gas expenditures (million dollars)				Natural gas expenditures (dollars)							
					per thousand cubic feet				per square foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All buildings	4,599	4,383	4,793	3,503	9.44	6.99	7.98	7.31	0.42	0.29	0.24	0.28
Building floorspace (square feet)												
1,001 to 5,000	407	526	784	440	10.23	8.13	8.65	8.10	0.85	0.47	0.62	0.50
5,001 to 10,000	336	519	670	432	10.41	7.34	8.03	7.81	0.53	0.38	0.44	0.34
10,001 to 25,000	631	639	681	598	10.77	7.87	8.25	8.06	0.39	0.29	0.26	0.25
25,001 to 50,000	426	704	553	417	9.26	7.05	7.48	7.33	0.38	0.27	0.21	0.24
50,001 to 100,000	835	638	795	353	9.79	6.40	8.21	7.36	0.39	0.29	0.20	0.22
100,001 to 200,000	883	483	481	413	8.75	6.99	8.63	7.20	0.41	0.26	0.14	0.22
200,001 to 500,000	645	585	421	510	8.56	6.39	7.51	6.44	0.38	0.24	0.18	0.28
Over 500,000	437	288	409	Q	8.91	5.79	6.67	6.30	0.36	0.23	0.21	0.32
Principal building activity												
Education	718	729	463	290	9.36	6.87	7.53	7.30	0.44	0.27	0.12	0.20
Food sales	Q	Q	83	Q	Q	Q	8.32	Q	Q	Q	0.49	Q
Food service	238	336	781	344	9.31	6.89	7.60	7.70	1.22	1.12	1.35	1.08
Health care	560	384	511	364	9.07	6.20	6.57	6.39	0.62	0.53	0.51	0.55
Inpatient	395	285	476	285	8.52	5.98	6.49	6.17	0.91	0.67	0.57	0.67
Outpatient	165	98	35	79	10.71	6.95	7.79	7.34	0.35	0.33	0.19	0.33
Lodging	314	311	504	499	9.10	7.54	7.67	6.75	0.40	0.37	0.25	0.38
Mercantile	552	573	701	567	10.57	7.20	9.09	7.53	0.43	0.31	0.24	0.24
Retail (other than mall)	153	206	119	129	11.98	7.01	8.45	8.00	0.30	0.24	0.13	0.12
Enclosed and strip malls	399	366	582	438	10.12	7.31	9.23	7.40	0.51	0.37	0.29	0.33
Office	856	609	426	416	9.23	7.24	9.12	8.02	0.32	0.24	0.16	0.18
Public assembly	295	364	220	184	10.42	6.82	7.99	8.13	0.44	0.28	0.21	0.22
Public order and safety	Q	Q	87	Q	Q	Q	8.89	Q	Q	Q	0.21	Q
Religious worship	180	206	179	125	9.59	7.53	7.47	8.59	0.25	0.29	0.17	0.25
Service	169	347	336	99	9.11	7.44	8.05	8.07	0.59	0.28	0.36	0.28
Warehouse and storage	312	271	275	263	9.95	7.34	9.63	6.73	0.27	0.15	0.11	0.17
Other	Q	Q	201	Q	Q	Q	8.25	6.45	Q	Q	0.34	0.48
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year constructed												
Before 1920	345	209	170	34	10.21	7.63	8.39	8.65	0.35	0.28	0.45	0.16
1920 to 1945	495	374	161	137	10.14	7.01	8.06	7.09	0.40	0.29	0.21	0.27
1946 to 1959	554	429	316	297	9.88	7.01	7.89	7.96	0.54	0.30	0.17	0.27
1960 to 1969	641	649	593	515	9.83	7.07	7.53	7.25	0.37	0.29	0.28	0.35
1970 to 1979	765	651	653	472	8.81	6.97	7.32	7.62	0.49	0.31	0.28	0.24
1980 to 1989	409	697	980	538	9.59	7.02	8.66	7.54	0.36	0.33	0.24	0.21
1990 to 1999	664	581	717	572	8.83	7.30	7.53	7.14	0.43	0.26	0.22	0.28
2000 to 2003	337	279	347	235	9.28	6.58	8.04	7.32	0.40	0.24	0.19	0.26
2004 to 2007	170	248	455	Q	8.69	6.88	8.65	6.93	0.51	0.25	0.27	0.38
2008 to 2012	220	265	402	292	9.63	6.32	8.37	6.85	0.34	0.40	0.24	0.35
Climate region¹												
Very cold/Cold	3,059	3,891	N	1,320	9.47	6.93	N	7.08	0.42	0.30	N	0.32
Mixed-humid	1,541	492	3,399	N	9.38	7.52	8.27	N	0.40	0.26	0.25	N
Mixed-dry/Hot-dry	N	N	Q	1,590	N	N	5.86	7.03	N	N	0.14	0.24
Hot-humid	N	N	1,262	N	N	N	7.58	N	N	N	0.24	N
Marine	N	N	N	593	N	N	N	8.91	N	N	N	0.29

Table C26. Natural gas expenditures by Census region, 2012

	Total natural gas expenditures (million dollars)				Natural gas expenditures (dollars)							
					per thousand cubic feet				per square foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All buildings	4,599	4,383	4,793	3,503	9.44	6.99	7.98	7.31	0.42	0.29	0.24	0.28
Number of floors												
One	1,188	1,954	2,514	1,648	9.91	7.45	8.39	7.70	0.46	0.32	0.26	0.27
Two	1,291	973	893	799	9.12	6.88	8.06	7.62	0.41	0.24	0.21	0.25
Three	563	613	344	180	10.03	6.65	7.51	7.24	0.35	0.29	0.22	0.23
Four to nine	1,210	655	793	574	9.18	6.44	7.20	6.48	0.45	0.31	0.24	0.34
Ten or more	347	189	248	Q	9.20	6.46	7.33	6.46	0.32	0.26	0.25	Q
Number of workers (main shift)												
Fewer than 5	523	702	607	388	10.56	8.07	8.39	7.91	0.42	0.28	0.24	0.25
5 to 9	385	435	503	354	11.27	8.00	7.86	8.00	0.45	0.30	0.28	0.29
10 to 19	375	600	801	520	10.19	6.78	7.92	8.09	0.35	0.37	0.36	0.28
20 to 49	560	855	889	651	9.52	7.32	8.31	7.50	0.39	0.30	0.25	0.24
50 to 99	873	693	849	393	9.50	6.60	8.44	7.27	0.49	0.29	0.20	0.22
100 to 249	910	543	561	533	9.10	6.54	8.43	6.72	0.41	0.26	0.19	0.34
250 or more	973	554	584	664	8.40	6.03	6.57	6.55	0.39	0.28	0.24	0.33
Weekly operating hours												
Fewer than 40	154	287	193	149	10.61	7.94	7.64	7.91	0.32	0.24	0.16	0.19
40 to 48	438	638	567	476	9.93	7.69	8.91	7.72	0.30	0.25	0.15	0.22
49 to 60	735	875	772	579	10.16	7.23	8.13	8.01	0.30	0.24	0.16	0.19
61 to 84	1,121	986	1,004	636	9.80	6.85	8.75	7.48	0.43	0.31	0.32	0.25
85 to 167	881	576	785	442	9.19	6.56	7.75	8.03	0.57	0.32	0.38	0.33
Open continuously	1,271	1,022	1,472	1,221	8.70	6.59	7.34	6.56	0.51	0.37	0.31	0.44
Ownership and occupancy												
Nongovernment owned	3,396	3,345	3,821	2,922	9.49	7.06	8.09	7.30	0.40	0.30	0.26	0.28
Owner occupied	1,593	1,854	1,714	1,468	9.34	6.99	7.57	7.13	0.42	0.33	0.25	0.34
Leased to tenant(s)	1,274	1,026	1,714	1,158	9.77	7.34	8.75	7.60	0.39	0.28	0.29	0.26
Owner occupied and leased	521	451	391	284	9.25	6.73	7.89	7.00	0.38	0.29	0.21	0.19
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government owned	1,203	1,038	972	581	9.29	6.80	7.59	7.35	0.47	0.26	0.18	0.24
Federal	Q	Q	98	Q	Q	Q	9.24	Q	Q	Q	0.23	Q
State	Q	237	295	202	8.82	6.49	6.96	7.51	0.59	0.29	0.21	0.26
Local	654	753	580	320	9.76	6.88	7.72	7.46	0.41	0.26	0.17	0.22
Party responsible for operation and maintenance of energy systems												
Building owner	3,741	3,834	3,685	2,833	9.41	6.97	7.80	7.32	0.40	0.29	0.23	0.27
Business owner or tenant	728	477	966	606	9.80	7.26	8.67	7.28	0.51	0.30	0.32	0.27
Property management	Q	Q	Q	Q	Q	Q	8.68	Q	Q	Q	0.26	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Provider of direct input on energy-related equipment purchases												
Building owner	3,829	3,941	3,840	3,009	9.43	6.99	7.89	7.30	0.40	0.29	0.23	0.27
Business owner or tenant	569	341	744	447	9.73	6.99	8.27	7.35	0.53	0.30	0.32	0.30
Property management	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	194	Q	Q	7.14	8.93	Q	Q	0.22	0.40	Q

Table C26. Natural gas expenditures by Census region, 2012

	Total natural gas expenditures (million dollars)				Natural gas expenditures (dollars)							
					per thousand cubic feet				per square foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All buildings	4,599	4,383	4,793	3,503	9.44	6.99	7.98	7.31	0.42	0.29	0.24	0.28
Number of establishments												
One	3,071	2,911	3,212	2,374	9.33	6.99	7.70	7.26	0.45	0.30	0.25	0.31
2 to 5	904	981	884	583	9.73	6.91	8.51	7.35	0.41	0.28	0.21	0.23
6 to 10	204	203	235	235	9.73	7.44	8.89	7.84	0.35	0.29	0.24	0.28
11 to 20	250	163	292	174	9.41	7.01	8.10	7.35	0.35	0.38	0.30	0.27
More than 20	161	111	167	114	9.56	7.12	10.25	6.88	0.24	0.21	0.19	0.14
Currently unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant exterior wall material												
Brick, stone, or stucco	2,469	2,420	2,585	1,450	9.58	7.05	7.87	7.19	0.41	0.32	0.25	0.29
Concrete (block or poured)	1,063	936	1,286	881	9.03	7.00	8.39	7.53	0.39	0.28	0.27	0.24
Concrete panels	275	385	301	Q	7.86	6.18	7.38	7.04	0.42	0.28	0.16	0.22
Siding or shingles	282	271	221	321	11.77	7.41	7.67	7.72	0.45	0.29	0.49	0.36
Metal panels	Q	292	331	175	10.60	7.58	8.07	8.10	0.52	0.22	0.18	0.23
Window glass	Q	Q	Q	105	Q	Q	Q	7.29	Q	Q	Q	0.42
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant roof material												
Metal surfacing	239	475	861	394	11.08	7.64	8.48	7.87	0.32	0.23	0.25	0.26
Synthetic or rubber	2,051	1,752	1,437	1,248	9.63	6.82	7.96	6.97	0.44	0.29	0.26	0.34
Built-up	1,199	994	1,253	856	8.73	6.60	7.64	7.37	0.41	0.29	0.21	0.23
Slate or tile shingles	274	105	223	299	9.25	8.08	7.81	7.50	0.44	0.32	0.21	0.38
Wooden materials (including shingles)	Q	Q	102	76	Q	Q	6.53	6.89	Q	Q	0.53	0.31
Asphalt, fiberglass, or other shingles	657	940	797	523	10.25	7.23	8.34	7.56	0.39	0.35	0.25	0.23
Concrete	61	Q	Q	38	7.82	Q	Q	7.29	0.29	Q	Q	0.15
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Roof characteristics												
Roof tilt												
Flat	3,312	2,611	2,843	2,184	9.28	6.74	7.66	7.18	0.42	0.30	0.25	0.29
Shallow pitch	706	957	1,222	927	9.51	7.20	8.80	7.49	0.49	0.25	0.22	0.26
Steeper pitch	581	815	728	393	10.39	7.67	8.05	7.63	0.34	0.35	0.26	0.26
Cool roof	1,165	988	1,211	1,143	9.14	6.91	7.79	7.06	0.49	0.31	0.24	0.31

Table C26. Natural gas expenditures by Census region, 2012

	Total natural gas expenditures (million dollars)				Natural gas expenditures (dollars)							
					per thousand cubic feet				per square foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All buildings	4,599	4,383	4,793	3,503	9.44	6.99	7.98	7.31	0.42	0.29	0.24	0.28
Renovations in buildings constructed before 2008 (more than one may apply)												
Any type of renovation	2,892	2,349	2,381	1,786	9.37	6.91	7.82	7.22	0.42	0.28	0.24	0.31
Addition or annex	913	960	896	607	9.35	6.79	7.06	6.67	0.47	0.29	0.27	0.40
Reduction in floorspace	Q	71	127	Q	7.82	6.58	6.99	Q	0.49	0.30	0.28	Q
Roof replacement	1,806	1,341	1,230	825	9.42	6.85	7.67	7.07	0.44	0.30	0.24	0.32
Exterior wall replacement	240	237	277	220	10.48	7.06	7.54	6.66	0.33	0.27	0.26	0.30
Interior wall reconfiguration	1,506	1,172	1,113	1,059	9.64	6.67	7.57	7.07	0.38	0.27	0.26	0.31
Window replacement	928	683	722	594	9.96	6.74	7.38	6.94	0.39	0.27	0.28	0.33
HVAC equipment upgrade	2,024	1,504	1,547	1,265	9.36	6.92	7.46	7.00	0.40	0.27	0.25	0.34
Lighting upgrade	1,837	1,490	1,421	1,260	9.32	6.68	7.46	7.01	0.40	0.29	0.24	0.34
Electrical upgrade	1,304	965	960	910	9.40	6.80	7.77	6.84	0.41	0.30	0.26	0.39
Plumbing system upgrade	1,226	828	944	851	9.38	6.85	7.49	6.81	0.46	0.29	0.31	0.42
Insulation upgrade	600	483	502	450	9.85	7.22	7.44	6.72	0.44	0.27	0.31	0.40
Fire, safety, or security upgrade	1,435	933	1,061	805	9.51	6.57	7.27	6.94	0.41	0.30	0.26	0.33
Structural upgrade	156	184	312	Q	9.73	6.74	7.73	6.53	0.32	0.25	0.42	0.47
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No renovations	1,488	1,769	2,010	1,425	9.55	7.22	8.11	7.53	0.43	0.29	0.24	0.23
Buildings constructed 2008 or later	220	265	402	292	9.63	6.32	8.37	6.85	0.34	0.40	0.24	0.35
Energy sources (more than one may apply)												
Electricity	4,599	4,383	4,793	3,503	9.44	6.99	7.98	7.31	0.42	0.29	0.24	0.28
Natural gas	4,599	4,383	4,793	3,503	9.44	6.99	7.98	7.31	0.42	0.29	0.24	0.28
Fuel oil	1,389	919	1,172	976	9.03	6.10	7.52	6.61	0.40	0.30	0.26	0.37
District heat	Q	31	105	Q	8.49	6.04	6.65	6.26	Q	0.08	Q	0.55
District chilled water	Q	32	177	Q	8.08	6.23	6.80	6.45	0.70	0.10	0.16	0.72
Propane	171	245	276	Q	9.89	6.16	7.61	6.95	0.32	0.26	0.28	0.36
Other	360	133	97	232	8.99	6.94	7.17	6.99	0.45	0.21	0.21	0.32
Space-heating energy sources												
Natural gas	4,165	4,287	3,747	2,856	9.47	6.98	7.76	7.39	0.45	0.31	0.24	0.27
Natural gas main	3,946	4,074	3,057	2,453	9.47	6.97	7.72	7.45	0.47	0.31	0.25	0.27
Natural gas secondary	219	213	691	403	9.48	7.25	7.92	7.02	0.22	0.22	0.22	0.28
Other excluding natural gas	419	94	941	562	9.14	7.42	8.86	6.93	0.24	0.10	0.23	0.31
Buildings without heating	Q	Q	105	Q	Q	Q	9.39	Q	Q	Q	0.29	Q
Primary space-heating energy source												
Electricity	276	266	1,509	649	9.99	7.51	8.58	7.34	0.22	0.19	0.24	0.24
Natural gas	3,946	4,074	3,057	2,453	9.47	6.97	7.72	7.45	0.47	0.31	0.25	0.27
Fuel oil	54	N	Q	Q	9.99	N	Q	Q	0.15	N	Q	Q
District heat	Q	24	104	Q	8.50	5.68	6.64	6.26	Q	0.07	Q	0.57
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling energy sources												
Natural gas	243	Q	Q	Q	8.88	Q	Q	Q	0.80	Q	Q	Q
Other excluding natural gas	4,168	4,133	4,704	3,238	9.43	7.02	7.97	7.25	0.40	0.29	0.24	0.27
Buildings without cooling	189	151	39	234	10.63	8.04	7.94	8.74	0.40	0.26	0.18	0.41

Table C26. Natural gas expenditures by Census region, 2012

	Total natural gas expenditures (million dollars)				Natural gas expenditures (dollars)							
					per thousand cubic feet				per square foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All buildings	4,599	4,383	4,793	3,503	9.44	6.99	7.98	7.31	0.42	0.29	0.24	0.28
Main equipment replaced since 1990 (more than one may apply)												
Heating	1,704	1,637	1,813	995	9.74	7.09	7.79	7.52	0.42	0.28	0.26	0.24
Cooling	1,910	1,876	2,032	1,062	9.84	7.04	7.92	7.44	0.40	0.30	0.26	0.25
Water-heating equipment												
Centralized system	2,930	2,970	2,938	1,997	9.31	6.96	7.95	7.42	0.43	0.31	0.27	0.29
Distributed system	602	493	442	475	9.89	7.31	8.28	6.89	0.36	0.24	0.17	0.25
Combination of centralized and distributed system	1,027	862	1,314	936	9.47	6.83	8.04	7.33	0.42	0.27	0.23	0.28
Food preparation or serving areas in non-food service buildings (more than one may apply)												
Snack bar or concession stand	689	602	739	631	8.94	6.65	7.91	6.68	0.47	0.31	0.27	0.37
Fast food or small restaurant	622	535	935	720	9.04	6.76	8.37	6.98	0.41	0.35	0.31	0.31
Cafeteria or large restaurant	1,315	953	1,136	802	8.87	6.66	7.19	6.51	0.44	0.31	0.23	0.40
Commercial kitchen/food preparation area	1,464	1,209	1,287	982	8.94	6.78	7.63	6.73	0.54	0.33	0.25	0.38
Small kitchen area	914	859	786	630	9.62	6.93	8.46	7.25	0.38	0.28	0.23	0.31
HVAC conservation features (more than one may apply)												
Economizer cycle	2,314	1,924	1,594	1,688	8.82	6.64	8.07	7.01	0.41	0.28	0.25	0.29
Regular HVAC maintenance	4,119	3,844	4,103	3,067	9.32	6.85	7.98	7.21	0.42	0.30	0.24	0.28
Building automation system (BAS) ²	2,204	1,902	2,107	1,881	8.97	6.68	7.68	7.02	0.40	0.29	0.22	0.31
Window and interior lighting features (more than one may apply)												
Multipaned windows	3,548	3,725	3,583	2,551	9.35	6.94	8.04	7.35	0.42	0.30	0.25	0.31
Tinted window glass	2,302	2,237	2,946	2,189	9.13	6.76	7.85	7.28	0.44	0.30	0.24	0.28
Reflective window glass	888	1,007	993	1,142	9.32	6.86	8.06	7.02	0.49	0.30	0.28	0.34
External overhangs or awnings	1,804	1,791	2,380	1,881	9.47	6.87	8.15	7.18	0.53	0.32	0.28	0.32
Skylights or atriums	1,514	950	1,273	1,374	9.25	6.63	7.81	7.08	0.46	0.26	0.24	0.30
Light scheduling	1,958	1,691	1,754	1,628	9.21	6.74	8.19	7.16	0.41	0.29	0.26	0.29
Occupancy sensors	2,491	1,905	1,863	1,802	9.17	6.63	8.11	7.13	0.41	0.29	0.23	0.28
Multi-level lighting or dimming	908	893	1,218	1,199	9.32	6.68	8.14	6.70	0.46	0.34	0.31	0.37
Daylight harvesting	522	311	293	390	9.89	6.57	8.19	6.89	0.58	0.24	0.22	0.28
Demand responsive lighting	256	219	342	235	10.40	7.05	9.41	7.31	0.55	0.25	0.31	0.19
Building automation system (BAS) for lighting ²	791	564	594	588	8.79	6.53	8.41	7.36	0.43	0.27	0.20	0.24
Equipment usage reduced when building not in full use (more than one may apply)												
Heating	3,648	3,503	3,423	2,434	9.49	7.03	8.11	7.38	0.40	0.29	0.22	0.24
Cooling	3,572	3,315	3,511	2,354	9.45	6.99	8.15	7.35	0.40	0.29	0.22	0.24
Lighting	4,333	4,155	4,466	3,298	9.48	6.99	8.08	7.34	0.42	0.29	0.24	0.28

Table C26. Natural gas expenditures by Census region, 2012

	Total natural gas expenditures (million dollars)				Natural gas expenditures (dollars)							
					per thousand cubic feet				per square foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All buildings	4,599	4,383	4,793	3,503	9.44	6.99	7.98	7.31	0.42	0.29	0.24	0.28
Annual consumption (hundred cubic feet)												
1,000 or less	88	185	224	132	16.54	11.44	13.03	10.53	0.13	0.15	0.07	0.07
1,001 to 5,000	569	668	769	519	11.71	8.09	9.22	8.59	0.27	0.21	0.16	0.17
5,001 to 10,000	438	458	676	359	10.16	7.59	8.35	7.58	0.30	0.26	0.20	0.25
10,001 to 25,000	608	923	1,113	867	9.35	7.16	7.87	7.70	0.33	0.29	0.30	0.35
25,001 to 50,000	693	640	625	388	9.63	6.77	7.65	6.98	0.42	0.34	0.29	0.26
50,001 to 100,000	659	553	533	358	9.04	6.57	7.58	7.10	0.48	0.33	0.41	0.39
Over 100,000	1,544	956	853	880	8.57	5.98	6.81	6.28	0.81	0.46	0.61	0.60

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/>
 • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and C of the 2012 Commercial Buildings Energy Consumption Survey.

Table C27. Natural gas consumption and conditional energy intensity by Census division (part 1), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	New England	Middle Atlantic	East North Central	New England	Middle Atlantic	East North Central	New England	Middle Atlantic	East North Central
All buildings	108	379	482	2,241	8,827	10,790	48.1	43.0	44.6
Building floorspace (square feet)									
1,001 to 5,000	Q	35	43	Q	384	745	Q	90.5	57.5
5,001 to 10,000	Q	25	55	Q	449	931	Q	55.6	59.5
10,001 to 25,000	12	47	58	459	1,149	1,530	25.6	40.7	38.0
25,001 to 50,000	Q	30	85	Q	830	1,928	Q	36.2	43.9
50,001 to 100,000	14	71	73	330	1,789	1,485	41.9	39.9	49.4
100,001 to 200,000	8	93	49	230	1,925	1,344	35.9	48.1	36.6
200,001 to 500,000	34	42	78	492	1,225	1,886	68.2	34.1	41.6
Over 500,000	Q	37	40	Q	1,077	941	Q	34.3	42.1
Principal building activity									
Education	Q	60	84	Q	1,247	1,979	Q	48.5	42.5
Food sales	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food service	Q	20	35	Q	116	208	Q	169.4	170.2
Health care	Q	50	41	Q	745	460	Q	66.8	88.4
Inpatient	Q	36	36	Q	337	306	Q	106.1	116.3
Outpatient	Q	14	5	Q	407	154	Q	34.2	33.2
Lodging	Q	28	32	Q	681	620	Q	41.0	51.5
Mercantile	Q	43	68	Q	1,000	1,429	Q	43.3	47.4
Retail (other than mall)	Q	12	26	Q	495	689	Q	25.2	37.3
Enclosed and strip malls	Q	31	42	Q	505	740	Q	61.0	56.7
Office	11	82	68	399	2,304	1,969	28.1	35.4	34.6
Public assembly	Q	22	42	Q	523	993	Q	42.4	41.8
Public order and safety	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious worship	Q	15	21	Q	560	484	Q	26.3	43.2
Service	Q	17	34	Q	222	803	Q	76.8	41.8
Warehouse and storage	Q	17	29	Q	949	1,169	Q	17.9	24.7
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year constructed									
Before 1920	Q	17	22	Q	725	491	Q	24.0	44.7
1920 to 1945	Q	44	40	Q	1,048	998	Q	41.6	40.4
1946 to 1959	Q	50	47	Q	876	1,078	Q	57.4	43.6
1960 to 1969	Q	52	63	Q	1,464	1,346	Q	35.5	46.5
1970 to 1979	11	76	73	287	1,266	1,562	39.1	59.7	46.5
1980 to 1989	10	32	80	326	822	1,541	31.9	39.2	52.2
1990 to 1999	Q	63	62	Q	1,282	1,619	Q	48.8	38.1
2000 to 2003	Q	18	35	Q	563	874	Q	31.6	40.2
2004 to 2007	Q	Q	27	Q	Q	743	Q	Q	36.9
2008 to 2012	Q	Q	32	Q	Q	539	Q	Q	60.1

Table C27. Natural gas consumption and conditional energy intensity by Census division (part 1), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	New England	Middle Atlantic	East North Central	New England	Middle Atlantic	East North Central	New England	Middle Atlantic	East North Central
All buildings	108	379	482	2,241	8,827	10,790	48.1	43.0	44.6
Provider of direct input on energy-related equipment purchases									
Building owner	91	315	431	1,867	7,629	9,569	48.8	41.3	45.1
Business owner or tenant	Q	51	38	Q	830	884	Q	61.2	43.5
Property management	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Number of establishments									
One	54	275	316	1,235	5,598	7,021	43.8	49.2	45.0
2 to 5	31	62	112	511	1,694	2,396	60.9	36.5	46.9
6 to 10	Q	12	20	Q	435	518	Q	27.6	38.6
11 to 20	Q	19	21	Q	458	354	Q	41.8	59.5
More than 20	Q	11	11	Q	610	420	Q	17.6	26.3
Currently unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant exterior wall material									
Brick, stone, or stucco	65	193	269	1,351	4,694	5,371	48.0	41.1	50.0
Concrete (block or poured)	18	99	108	423	2,289	2,684	43.6	43.4	40.2
Concrete panels	Q	26	47	Q	556	968	Q	46.7	48.2
Siding or shingles	Q	13	29	Q	366	653	Q	35.8	44.5
Metal panels	Q	Q	18	Q	388	625	Q	Q	28.4
Window glass	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	N	Q	Q	N	Q	Q	N	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant roof material									
Metal surfacing	Q	18	41	Q	683	1,187	Q	26.7	34.3
Synthetic or rubber	76	137	202	1,385	3,233	4,463	55.1	42.3	45.3
Built-up	11	126	110	305	2,642	2,519	36.2	47.8	43.5
Slate or tile shingles	Q	24	10	Q	442	254	Q	54.2	39.4
Wooden materials (including shingles)	Q	Q	Q	Q	Q	Q	Q	Q	Q
Asphalt, fiberglass, or other shingles	10	54	107	268	1,427	2,041	38.2	37.8	52.2
Concrete	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q
Roof characteristics									
Roof tilt									
Flat	73	284	293	1,572	6,328	6,373	46.5	44.9	46.1
Shallow pitch	23	52	100	339	1,117	2,612	66.9	46.2	38.3
Steeper pitch	Q	44	88	329	1,382	1,805	36.5	31.8	48.7
Cool roof	18	109	113	427	1,970	2,337	43.1	55.3	48.4

Table C27. Natural gas consumption and conditional energy intensity by Census division (part 1), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	New England	Middle Atlantic	East North Central	New England	Middle Atlantic	East North Central	New England	Middle Atlantic	East North Central
All buildings	108	379	482	2,241	8,827	10,790	48.1	43.0	44.6
Cooling equipment (more than one may apply)									
Residential-type central air conditioners	10	54	113	240	1,074	2,760	40.2	50.4	41.1
Heat pumps	13	32	22	309	884	458	41.0	35.7	47.8
Individual air conditioners	43	103	71	581	2,256	1,660	73.2	45.6	42.5
District chilled water	Q	Q	5	Q	Q	220	Q	Q	20.8
Central chillers	31	97	142	511	2,228	3,021	59.9	43.7	47.2
Packaged air conditioning units	73	200	299	1,399	5,388	6,192	52.0	37.0	48.2
Swamp coolers	N	3	6	N	18	74	N	184.1	81.3
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Main equipment replaced since 1990 (more than one may apply)									
Heating	33	142	170	919	3,140	3,901	36.2	45.1	43.5
Cooling	36	158	199	942	3,877	4,336	38.2	40.8	45.9
Water-heating equipment									
Centralized system	50	264	324	1,306	5,455	6,813	38.6	48.4	47.5
Distributed system	Q	38	56	Q	1,343	1,502	Q	28.4	37.2
Combination of centralized and distributed system	34	74	98	539	1,919	2,311	63.0	38.8	42.5
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar or concession stand	Q	64	72	Q	1,354	1,452	Q	47.6	49.3
Fast food or small restaurant	Q	57	59	Q	1,263	1,154	Q	45.0	51.0
Cafeteria or large restaurant	27	121	107	535	2,458	2,336	50.1	49.4	45.7
Commercial kitchen/food preparation area	37	127	140	696	2,029	2,853	52.9	62.5	49.1
Small kitchen area	16	79	90	368	2,062	2,120	43.9	38.3	42.6
HVAC conservation features (more than one may apply)									
Economizer cycle	52	211	218	1,032	4,618	4,910	50.2	45.6	44.5
Regular HVAC maintenance	101	341	439	2,003	7,844	9,446	50.5	43.4	46.4
Building automation system (BAS) ²	62	184	216	1,208	4,277	4,817	51.2	43.0	44.8

Table C27. Natural gas consumption and conditional energy intensity by Census division (part 1), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	New England	Middle Atlantic	East North Central	New England	Middle Atlantic	East North Central	New England	Middle Atlantic	East North Central
All buildings	108	379	482	2,241	8,827	10,790	48.1	43.0	44.6
Window and interior lighting features (more than one may apply)									
Multipaned windows	98	281	407	1,955	6,509	8,803	50.3	43.2	46.2
Tinted window glass	47	205	252	1,076	4,109	5,434	43.5	50.0	46.4
Reflective window glass	12	83	111	302	1,510	2,465	40.5	55.0	45.1
External overhangs or awnings	28	162	200	721	2,704	3,833	39.3	60.0	52.3
Skylights or atriums	41	123	112	1,006	2,292	2,534	40.9	53.5	44.4
Light scheduling	59	154	206	1,019	3,766	4,570	57.4	40.9	45.0
Occupancy sensors	82	189	231	1,474	4,532	5,106	55.7	41.8	45.2
Multi-level lighting or dimming	25	73	106	474	1,493	1,972	52.3	48.6	53.6
Daylight harvesting	Q	38	38	Q	654	987	Q	58.3	38.3
Demand responsive lighting	Q	22	22	Q	405	491	Q	54.6	44.1
Building automation system (BAS) for lighting ²	24	66	64	409	1,415	1,555	57.6	47.0	41.3
Equipment usage reduced when building not in full use (more than one may apply)									
Heating	74	310	390	1,869	7,326	8,751	39.7	42.4	44.5
Cooling	81	298	369	1,813	7,042	8,263	44.5	42.3	44.6
Lighting	107	350	455	2,193	8,217	10,107	49.0	42.6	45.0
Annual consumption (hundred cubic feet)									
1,000 or less	1	4	11	209	476	789	5.5	8.7	13.4
1,001 to 5,000	12	37	56	578	1,546	2,121	20.5	23.8	26.2
5,001 to 10,000	Q	36	45	Q	1,300	1,264	Q	27.4	35.3
10,001 to 25,000	13	52	93	276	1,556	2,159	47.9	33.3	43.3
25,001 to 50,000	Q	63	83	Q	1,361	1,586	Q	46.1	52.3
50,001 to 100,000	Q	53	62	Q	1,075	1,218	Q	49.0	50.7
Over 100,000	45	136	133	391	1,513	1,653	114.0	89.6	80.2

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

(*) = Value rounds to zero in the units displayed.

Notes: ● Because of rounding, data may not sum to totals. ● See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> ● Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. ● HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and C of the 2012 Commercial Buildings Energy Consumption Survey.

Table C28. Natural gas consumption and conditional energy intensity by Census division (part 2), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	West North Central	South Atlantic	East South Central	West North Central	South Atlantic	East South Central	West North Central	South Atlantic	East South Central
All buildings	145	298	101	4,236	9,984	3,436	34.3	29.8	29.4
Building floorspace (square feet)									
1,001 to 5,000	22	45	11	381	487	258	57.6	91.6	40.8
5,001 to 10,000	15	44	9	447	587	292	34.2	74.6	30.6
10,001 to 25,000	23	37	19	656	1,119	597	35.1	33.1	32.4
25,001 to 50,000	15	32	17	700	1,303	349	21.8	24.8	48.2
50,001 to 100,000	26	46	Q	696	1,986	708	37.8	23.0	23.4
100,001 to 200,000	20	35	8	522	2,036	455	38.4	17.1	17.3
200,001 to 500,000	13	33	9	504	1,332	460	25.8	24.5	20.6
Over 500,000	Q	27	12	Q	1,134	Q	Q	23.8	Q
Principal building activity									
Education	22	28	9	755	1,867	384	29.1	15.1	22.5
Food sales	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food service	13	50	14	93	296	96	144.9	170.0	149.8
Health care	21	30	19	262	426	248	80.8	71.2	75.4
Inpatient	Q	30	18	Q	383	184	Q	77.1	95.8
Outpatient	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging	9	33	Q	218	1,023	Q	43.0	31.9	40.4
Mercantile	12	44	10	424	1,628	523	28.1	27.0	18.2
Retail (other than mall)	4	7	Q	180	365	Q	21.0	19.6	Q
Enclosed and strip malls	Q	37	Q	Q	1,263	Q	Q	29.1	Q
Office	16	22	10	566	1,427	388	28.1	15.7	24.7
Public assembly	12	11	Q	323	497	Q	36.5	22.2	Q
Public order and safety	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious worship	6	Q	Q	220	399	Q	29.3	32.5	Q
Service	13	24	Q	420	407	Q	31.2	58.9	Q
Warehouse and storage	8	16	Q	651	1,269	Q	12.4	12.7	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year constructed									
Before 1920	5	9	Q	252	220	Q	21.6	41.3	Q
1920 to 1945	13	8	Q	281	289	Q	46.3	28.1	Q
1946 to 1959	14	20	6	369	1,009	218	38.2	19.7	27.2
1960 to 1969	29	37	17	893	939	582	32.7	39.0	28.6
1970 to 1979	21	35	19	548	931	404	38.0	37.7	47.5
1980 to 1989	19	51	18	602	1,972	793	31.4	26.0	22.3
1990 to 1999	18	43	19	634	1,322	836	28.3	32.6	23.0
2000 to 2003	7	24	Q	294	1,070	Q	25.0	22.1	Q
2004 to 2007	9	34	Q	234	1,185	Q	36.9	29.0	Q
2008 to 2012	Q	36	Q	Q	1,048	Q	Q	34.7	Q

Table C28. Natural gas consumption and conditional energy intensity by Census division (part 2), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	West North Central	South Atlantic	East South Central	West North Central	South Atlantic	East South Central	West North Central	South Atlantic	East South Central
All buildings	145	298	101	4,236	9,984	3,436	34.3	29.8	29.4
Provider of direct input on energy-related equipment purchases									
Building owner	132	234	88	3,877	8,220	3,008	34.1	28.4	29.1
Business owner or tenant	10	52	9	265	1,449	Q	38.8	35.8	Q
Property management	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Number of establishments									
One	101	197	76	2,758	5,945	2,223	36.5	33.1	34.0
2 to 5	30	56	14	1,062	2,245	755	27.8	24.8	18.9
6 to 10	Q	15	Q	Q	552	Q	Q	28.0	Q
11 to 20	Q	Q	Q	Q	Q	Q	Q	31.4	Q
More than 20	Q	11	Q	Q	620	Q	Q	17.2	Q
Currently unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant exterior wall material									
Brick, stone, or stucco	75	158	68	2,118	5,076	1,995	35.3	31.2	34.2
Concrete (block or poured)	26	87	17	695	2,718	731	37.5	31.9	22.9
Concrete panels	16	24	Q	384	1,055	Q	41.0	22.4	Q
Siding or shingles	7	8	Q	267	168	Q	27.9	49.1	Q
Metal panels	21	15	8	699	712	281	29.7	20.6	27.0
Window glass	N	Q	Q	N	Q	Q	N	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant roof material									
Metal surfacing	21	39	19	906	1,258	683	23.6	31.2	27.3
Synthetic or rubber	55	97	39	1,586	2,958	1,153	34.5	32.7	33.7
Built-up	41	74	24	918	3,055	728	44.7	24.3	33.2
Slate or tile shingles	Q	14	Q	Q	699	Q	Q	Q	Q
Wooden materials (including shingles)	Q	Q	N	Q	Q	N	Q	Q	N
Asphalt, fiberglass, or other shingles	23	53	14	636	1,649	647	36.9	32.2	21.9
Concrete	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	N	Q	Q	N	Q	Q	N	Q
Roof characteristics									
Roof tilt									
Flat	94	187	62	2,460	6,194	1,662	38.2	30.2	37.1
Shallow pitch	33	64	21	1,235	2,553	1,002	26.5	25.2	21.2
Steeper pitch	18	46	18	540	1,238	773	34.0	37.4	23.4
Cool roof	30	67	37	859	2,480	1,107	34.7	26.9	33.8

Table C28. Natural gas consumption and conditional energy intensity by Census division (part 2), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	West North Central	South Atlantic	East South Central	West North Central	South Atlantic	East South Central	West North Central	South Atlantic	East South Central
All buildings	145	298	101	4,236	9,984	3,436	34.3	29.8	29.4
Cooling equipment (more than one may apply)									
Residential-type central air conditioners	33	44	19	1,084	1,114	662	30.8	39.5	29.1
Heat pumps	6	77	8	252	2,765	461	25.6	27.9	17.5
Individual air conditioners	20	47	22	560	1,636	644	35.9	28.8	34.7
District chilled water	Q	7	Q	Q	Q	Q	Q	Q	Q
Central chillers	43	86	31	765	2,820	749	55.9	30.6	41.3
Packaged air conditioning units	80	185	65	2,423	6,065	2,170	33.0	30.5	30.1
Swamp coolers	N	5	N	N	129	N	N	39.1	N
Other	Q	Q	N	Q	Q	N	Q	Q	N
Main equipment replaced since 1990 (more than one may apply)									
Heating	61	103	47	1,942	3,318	1,310	31.5	30.9	35.6
Cooling	68	116	51	1,967	3,882	1,407	34.4	29.8	36.2
Water-heating equipment									
Centralized system	103	178	64	2,676	5,148	1,869	38.3	34.6	34.3
Distributed system	12	25	4	552	1,282	300	20.9	19.7	13.4
Combination of centralized and distributed system	28	85	32	863	3,082	1,161	32.6	27.5	27.5
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar or concession stand	19	52	13	498	1,735	277	37.9	30.1	47.1
Fast food or small restaurant	20	62	16	394	1,733	520	51.3	35.5	30.9
Cafeteria or large restaurant	36	81	29	781	2,799	591	46.5	29.0	49.5
Commercial kitchen/food preparation area	38	93	30	803	3,095	615	47.7	30.0	48.7
Small kitchen area	34	49	21	928	1,520	848	36.5	32.2	24.4
HVAC conservation features (more than one may apply)									
Economizer cycle	72	99	32	1,921	3,549	779	37.3	27.9	41.4
Regular HVAC maintenance	122	261	81	3,472	8,810	2,579	35.3	29.6	31.3
Building automation system (BAS) ²	69	134	39	1,750	5,137	1,497	39.5	26.1	26.4

Table C28. Natural gas consumption and conditional energy intensity by Census division (part 2), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	West North Central	South Atlantic	East South Central	West North Central	South Atlantic	East South Central	West North Central	South Atlantic	East South Central
All buildings	145	298	101	4,236	9,984	3,436	34.3	29.8	29.4
Window and interior lighting features (more than one may apply)									
Multipaned windows	130	232	77	3,761	7,939	2,479	34.5	29.2	30.9
Tinted window glass	79	182	62	2,099	6,128	1,860	37.6	29.7	33.6
Reflective window glass	35	69	22	913	1,879	606	38.8	36.6	37.0
External overhangs or awnings	60	158	46	1,745	4,489	1,381	34.5	35.1	33.5
Skylights or atriums	31	83	25	1,081	3,049	729	28.5	27.2	33.9
Light scheduling	45	107	28	1,196	3,740	981	37.7	28.5	28.6
Occupancy sensors	56	126	30	1,540	4,604	1,036	36.5	27.4	29.1
Multi-level lighting or dimming	28	93	26	635	2,385	701	44.0	39.2	37.2
Daylight harvesting	10	22	Q	323	644	Q	29.7	34.3	Q
Demand responsive lighting	9	31	Q	387	882	Q	24.2	34.9	Q
Building automation system (BAS) for lighting ²	22	43	8	570	1,767	323	38.7	24.3	26.1
Equipment usage reduced when building not in full use (more than one may apply)									
Heating	109	217	63	3,235	7,783	2,649	33.6	27.9	23.7
Cooling	106	227	64	3,131	8,092	2,650	33.7	28.0	24.3
Lighting	139	275	98	4,047	9,350	3,154	34.4	29.4	31.2
Annual consumption (hundred cubic feet)									
1,000 or less	6	5	5	455	1,359	558	12.4	3.7	8.6
1,001 to 5,000	27	36	15	1,097	2,387	848	24.5	15.2	17.4
5,001 to 10,000	16	40	14	473	1,432	710	33.1	27.7	20.3
10,001 to 25,000	36	84	15	1,034	2,073	573	34.4	40.7	26.3
25,001 to 50,000	12	44	15	310	1,169	342	37.6	37.7	43.3
50,001 to 100,000	22	35	Q	450	870	Q	49.9	39.7	Q
Over 100,000	27	54	27	418	694	220	65.3	77.4	121.6

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

(*) = Value rounds to zero in the units displayed.

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and C of the 2012 Commercial Buildings Energy Consumption Survey.

Table C29. Natural gas consumption and conditional energy intensity by Census division (part 3), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific
All buildings	202	159	320	6,480	3,766	8,966	31.1	42.3	35.7
Building floorspace (square feet)									
1,001 to 5,000	36	17	37	521	327	560	68.2	51.9	66.5
5,001 to 10,000	31	21	34	657	372	902	46.7	57.1	37.8
10,001 to 25,000	26	23	51	916	665	1,733	28.6	34.7	29.5
25,001 to 50,000	25	10	47	987	312	1,435	25.1	30.8	33.0
50,001 to 100,000	35	18	30	1,310	536	1,095	26.4	33.6	27.4
100,001 to 200,000	13	12	46	989	379	1,536	13.2	30.6	29.8
200,001 to 500,000	14	22	57	586	684	1,124	24.0	32.0	51.0
Over 500,000	23	Q	17	515	Q	581	44.2	Q	28.7
Principal building activity									
Education	25	18	22	1,463	635	791	16.8	27.7	28.1
Food sales	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food service	38	Q	33	185	Q	241	205.3	Q	137.6
Health care	29	19	38	335	232	430	85.5	83.4	87.4
Inpatient	26	12	Q	263	118	306	99.5	102.6	111.5
Outpatient	Q	Q	4	Q	Q	124	Q	Q	28.2
Lodging	16	Q	32	535	503	810	29.6	83.2	39.5
Mercantile	24	14	61	805	606	1,788	29.4	23.8	34.0
Retail (other than mall)	5	Q	11	355	Q	806	13.6	Q	13.2
Enclosed and strip malls	19	9	50	450	351	983	41.8	25.6	51.1
Office	15	18	34	904	616	1,716	16.3	29.6	19.6
Public assembly	Q	Q	15	368	Q	593	Q	Q	25.9
Public order and safety	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious worship	4	Q	Q	256	Q	311	15.2	Q	Q
Service	10	Q	9	287	Q	271	36.3	Q	33.5
Warehouse and storage	9	Q	26	901	Q	1,143	10.2	34.3	22.6
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year constructed									
Before 1920	Q	Q	Q	Q	Q	Q	Q	Q	Q
1920 to 1945	9	Q	16	381	Q	388	22.6	Q	40.2
1946 to 1959	14	12	25	593	273	832	23.9	45.5	29.9
1960 to 1969	25	14	57	587	370	1,096	43.4	37.5	52.1
1970 to 1979	35	25	37	980	650	1,352	35.7	37.8	27.7
1980 to 1989	44	22	49	1,280	616	1,935	34.5	36.3	25.4
1990 to 1999	33	22	58	1,124	642	1,434	29.3	34.1	40.6
2000 to 2003	17	15	18	617	303	601	27.4	48.0	29.2
2004 to 2007	11	Q	23	345	501	573	30.5	Q	40.5
2008 to 2012	10	Q	Q	507	Q	613	20.4	Q	55.9

Table C29. Natural gas consumption and conditional energy intensity by Census division (part 3), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific
All buildings	202	159	320	6,480	3,766	8,966	31.1	42.3	35.7
Provider of direct input on energy-related equipment purchases									
Building owner	165	149	263	5,758	3,442	7,577	28.7	43.2	34.7
Business owner or tenant	29	10	51	587	248	1,229	48.7	38.7	41.6
Property management	Q	N	Q	Q	N	Q	Q	N	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Number of establishments									
One	145	113	213	4,634	2,313	5,429	31.3	49.1	39.3
2 to 5	34	31	48	1,184	912	1,672	28.7	34.5	28.6
6 to 10	Q	Q	26	Q	Q	668	Q	Q	38.7
11 to 20	Q	Q	18	Q	Q	478	Q	Q	37.1
More than 20	Q	Q	13	Q	Q	593	Q	Q	22.1
Currently unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant exterior wall material									
Brick, stone, or stucco	102	74	127	3,416	1,803	3,175	29.8	41.1	40.1
Concrete (block or poured)	50	30	87	1,369	923	2,687	36.3	33.0	32.2
Concrete panels	13	Q	29	522	Q	1,551	25.3	Q	18.8
Siding or shingles	16	Q	37	201	Q	719	Q	Q	51.5
Metal panels	19	11	10	877	321	427	21.4	35.3	23.9
Window glass	Q	Q	13	Q	Q	208	Q	Q	60.8
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant roof material									
Metal surfacing	44	21	29	1,508	580	958	28.9	36.4	30.2
Synthetic or rubber	45	80	99	1,393	1,553	2,067	32.3	51.5	48.0
Built-up	65	29	87	2,144	871	2,844	30.5	33.7	30.5
Slate or tile shingles	12	Q	34	302	Q	686	40.4	Q	48.9
Wooden materials (including shingles)	Q	Q	Q	Q	Q	Q	Q	Q	Q
Asphalt, fiberglass, or other shingles	28	19	50	945	576	1,707	29.9	32.8	29.5
Concrete	Q	Q	4	Q	Q	229	Q	Q	19.6
Other	N	Q	Q	N	Q	Q	N	Q	Q
No one major type	Q	N	Q	Q	N	Q	Q	N	Q
Roof characteristics									
Roof tilt									
Flat	122	80	224	3,621	2,042	5,581	33.8	39.0	40.2
Shallow pitch	53	Q	64	2,039	1,253	2,351	26.1	47.9	27.1
Steeper pitch	26	20	32	820	471	1,034	31.8	41.8	30.7
Cool roof	51	36	126	1,517	1,122	2,533	33.9	32.1	49.7

Table C29. Natural gas consumption and conditional energy intensity by Census division (part 3), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific
All buildings	202	159	320	6,480	3,766	8,966	31.1	42.3	35.7
Renovations in buildings constructed before 2008 (more than one may apply)									
Any type of renovation	109	96	151	3,317	1,945	3,830	33.0	49.3	39.5
Addition or annex	39	Q	38	1,084	824	696	36.3	64.4	54.5
Reduction in floorspace	Q	Q	Q	Q	Q	Q	Q	Q	Q
Roof replacement	58	38	78	1,749	945	1,612	33.0	40.4	48.7
Exterior wall replacement	Q	Q	Q	266	Q	565	Q	Q	41.4
Interior wall reconfiguration	55	Q	84	1,506	1,227	2,223	36.7	53.9	37.6
Window replacement	39	Q	33	705	718	1,080	55.3	72.5	31.0
HVAC equipment upgrade	73	74	107	2,227	1,385	2,328	32.6	53.4	45.9
Lighting upgrade	71	72	108	2,053	1,317	2,443	34.6	54.5	44.1
Electrical upgrade	46	Q	76	1,367	873	1,455	33.3	65.9	51.9
Plumbing system upgrade	48	Q	72	1,005	634	1,378	47.5	83.1	52.4
Insulation upgrade	33	Q	30	614	Q	676	53.9	Q	43.9
Fire, safety, or security upgrade	52	35	81	1,646	831	1,615	31.6	42.1	50.1
Structural upgrade	Q	Q	27	Q	Q	547	Q	Q	50.1
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
No renovations	82	55	134	2,656	1,590	4,523	30.8	34.6	29.7
Buildings constructed 2008 or later	10	Q	Q	507	Q	613	20.4	Q	55.9
Energy sources (more than one may apply)									
Electricity	202	159	320	6,480	3,766	8,966	31.1	42.3	35.7
Natural gas	202	159	320	6,480	3,766	8,966	31.1	42.3	35.7
Fuel oil	50	Q	88	1,150	916	1,713	43.7	65.6	51.1
District heat	Q	Q	Q	124	Q	225	Q	Q	Q
District chilled water	Q	Q	Q	244	Q	186	Q	Q	133.9
Propane	Q	Q	17	Q	Q	587	Q	Q	29.4
Other	Q	9	Q	Q	305	425	Q	28.0	57.9
Space-heating energy sources									
Natural gas	164	119	267	5,467	3,180	7,509	30.0	37.6	35.5
Natural gas main	132	106	223	4,551	2,893	6,333	29.1	36.6	35.3
Natural gas secondary	32	14	44	916	288	1,176	34.8	47.7	37.1
Other excluding natural gas	36	Q	41	929	582	1,250	39.0	Q	32.9
Buildings without heating	Q	Q	Q	Q	Q	Q	Q	Q	Q
Primary space-heating energy source									
Electricity	59	23	65	1,719	512	2,143	34.3	45.3	30.4
Natural gas	132	106	223	4,551	2,893	6,333	29.1	36.6	35.3
Fuel oil	N	N	1	N	N	6	N	N	165.1
District heat	Q	Q	Q	124	Q	208	Q	Q	Q
Propane	Q	N	Q	Q	N	Q	Q	N	Q
Other	N	1	(*)	N	35	40	N	16.5	9.9

Table C29. Natural gas consumption and conditional energy intensity by Census division (part 3), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific
All buildings	202	159	320	6,480	3,766	8,966	31.1	42.3	35.7
Cooling equipment (more than one may apply)									
Residential-type central air conditioners	44	19	69	1,479	532	1,558	29.9	35.1	44.4
Heat pumps	31	12	51	1,073	410	1,407	28.5	28.2	35.9
Individual air conditioners	15	19	25	607	513	681	25.2	37.6	37.0
District chilled water	Q	Q	Q	244	Q	186	Q	Q	133.9
Central chillers	52	35	66	1,351	795	1,504	38.4	44.2	44.1
Packaged air conditioning units	120	73	192	3,827	1,955	5,499	31.2	37.5	34.8
Swamp coolers	Q	24	28	Q	571	533	Q	41.9	51.9
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Main equipment replaced since 1990 (more than one may apply)									
Heating	84	44	89	2,353	1,160	3,014	35.5	37.6	29.4
Cooling	90	52	91	2,491	1,253	2,938	36.2	41.1	31.0
Water-heating equipment									
Centralized system	127	99	170	3,747	2,081	4,910	33.9	47.7	34.6
Distributed system	24	18	51	993	553	1,355	24.2	32.5	37.6
Combination of centralized and distributed system	47	35	92	1,548	994	2,387	30.2	35.3	38.7
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar or concession stand	28	Q	45	713	679	1,048	39.5	72.2	43.4
Fast food or small restaurant	34	Q	58	720	794	1,505	47.3	Q	38.5
Cafeteria or large restaurant	48	Q	71	1,545	785	1,213	30.9	66.6	58.4
Commercial kitchen/food preparation area	46	Q	85	1,392	949	1,649	33.0	64.6	51.3
Small kitchen area	23	Q	37	1,000	773	1,265	23.2	Q	29.4
HVAC conservation features (more than one may apply)									
Economizer cycle	66	84	157	2,057	1,796	4,022	32.2	46.7	39.0
Regular HVAC maintenance	172	141	285	5,446	3,290	7,801	31.6	42.8	36.5
Building automation system (BAS) ²	101	84	184	3,030	1,876	4,229	33.4	44.8	43.5

Table C29. Natural gas consumption and conditional energy intensity by Census division (part 3), 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	West South		Pacific	West South		Pacific	West South		Pacific
	Central	Mountain		Central	Mountain		Central	Mountain	
All buildings	202	159	320	6,480	3,766	8,966	31.1	42.3	35.7
Window and interior lighting features (more than one may apply)									
Multipaned windows	137	130	217	4,107	2,965	5,255	33.3	43.9	41.3
Tinted window glass	131	97	204	4,067	2,080	5,778	32.1	46.7	35.2
Reflective window glass	32	Q	103	1,055	992	2,328	30.3	60.5	44.1
External overhangs or awnings	88	91	171	2,528	1,830	3,988	34.9	49.5	43.0
Skylights or atriums	55	Q	127	1,487	1,261	3,305	37.2	53.4	38.3
Light scheduling	80	73	155	2,155	1,354	4,330	36.9	53.7	35.7
Occupancy sensors	74	Q	174	2,349	1,622	4,710	31.3	48.3	37.0
Multi-level lighting or dimming	30	Q	118	838	1,073	2,132	35.9	56.6	55.4
Daylight harvesting	10	15	41	499	433	935	19.9	35.3	44.1
Demand responsive lighting	Q	Q	27	Q	Q	1,103	Q	Q	24.3
Building automation system (BAS) for lighting ²	19	18	61	901	624	1,838	21.4	29.6	33.4
Equipment usage reduced when building not in full use (more than one may apply)									
Heating	142	104	226	4,952	2,952	7,300	28.6	35.2	30.9
Cooling	140	96	224	4,893	2,726	7,118	28.5	35.2	31.5
Lighting	179	153	296	6,034	3,641	8,289	29.7	42.1	35.7
Annual consumption (hundred cubic feet)									
1,000 or less	7	4	8	1,161	306	1,638	6.3	13.3	5.2
1,001 to 5,000	32	23	37	1,697	893	2,168	19.1	26.1	17.2
5,001 to 10,000	27	17	31	1,222	389	1,018	22.1	42.6	30.2
10,001 to 25,000	42	31	81	1,036	788	1,662	40.5	39.4	49.0
25,001 to 50,000	23	17	39	627	434	1,033	36.3	38.6	37.6
50,001 to 100,000	Q	13	38	Q	350	574	Q	36.8	65.5
Over 100,000	45	Q	85	494	Q	873	91.0	90.5	97.8

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

(*) = Value rounds to zero in the units displayed.

Notes: ● Because of rounding, data may not sum to totals. ● See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> ● Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. ● HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and C of the 2012 Commercial Buildings Energy Consumption Survey.

Table C30. Natural gas consumption and conditional energy intensity by climate region, 2012

	Total natural gas consumption (billion cubic feet)					Total floorspace of buildings using natural gas (million square feet)					Natural gas energy intensity (cubic feet/square foot)				
	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine
All buildings	1,070	641	249	167	67	24,511	19,361	7,520	5,300	2,033	43.7	33.1	33.1	31.4	32.7
Building floorspace (square feet)															
1,001 to 5,000	96	93	30	24	6	1,618	1,299	453	269	Q	59.5	71.2	66.8	90.0	51.3
5,001 to 10,000	111	76	30	18	Q	2,088	1,367	875	354	Q	53.2	55.8	34.3	50.6	Q
10,001 to 25,000	146	76	33	26	16	3,895	2,431	1,493	623	381	37.4	31.2	22.1	42.1	41.3
25,001 to 50,000	141	74	35	17	Q	3,384	2,474	1,184	789	318	41.6	29.9	29.8	21.7	30.5
50,001 to 100,000	178	97	22	23	Q	4,034	3,719	870	941	Q	44.0	26.0	25.8	24.9	Q
100,001 to 200,000	128	99	35	16	Q	3,522	3,580	1,277	818	Q	36.3	27.6	27.2	19.8	Q
200,001 to 500,000	165	61	Q	18	8	3,818	2,437	941	798	298	43.2	25.1	53.5	22.5	26.5
Over 500,000	106	66	13	23	Q	2,152	2,053	427	708	Q	49.4	32.0	30.1	33.2	Q
Principal building activity															
Education	159	91	15	15	Q	3,873	3,615	842	1,077	Q	40.9	25.1	17.9	13.6	Q
Food sales	28	12	Q	Q	Q	400	193	Q	Q	Q	70.4	64.6	Q	Q	Q
Food service	76	87	26	27	Q	503	487	186	151	Q	150.4	178.7	139.1	179.6	Q
Health care	111	83	Q	25	Q	1,436	1,032	346	388	Q	77.3	80.7	93.2	63.7	Q
Inpatient	78	75	Q	24	Q	720	746	262	316	Q	108.7	100.0	115.0	75.2	Q
Outpatient	33	9	Q	Q	Q	717	286	Q	Q	Q	45.7	30.6	Q	Q	Q
Lodging	99	64	30	17	Q	1,684	1,617	812	676	Q	58.6	39.6	36.7	25.8	Q
Mercantile	136	62	44	32	Q	3,402	2,619	1,300	871	Q	39.9	23.8	34.2	37.1	Q
Retail (other than mall)	48	16	Q	Q	Q	1,517	975	Q	Q	Q	31.6	16.9	Q	Q	Q
Enclosed and strip malls	88	46	40	30	Q	1,885	1,644	824	643	Q	46.6	28.0	48.5	47.4	Q
Office	157	76	17	10	15	4,654	3,223	1,197	621	596	33.8	23.7	14.3	15.9	24.7
Public assembly	72	28	13	Q	Q	1,802	952	557	324	Q	39.9	29.5	24.0	Q	Q
Public order and safety	19	12	Q	Q	Q	409	326	Q	Q	Q	45.6	36.4	Q	Q	Q
Religious worship	40	30	Q	Q	Q	1,181	1,208	284	Q	Q	33.6	24.5	Q	Q	Q
Service	58	44	Q	Q	Q	1,400	932	Q	Q	Q	41.7	47.0	Q	Q	Q
Warehouse and storage	75	31	25	Q	Q	2,773	2,485	1,111	526	Q	27.1	12.4	22.8	7.3	Q
Other	34	Q	Q	Q	Q	541	Q	Q	Q	Q	63.5	Q	Q	Q	Q
Vacant	7	Q	Q	N	Q	454	Q	Q	N	Q	15.8	Q	Q	N	Q
Year constructed															
Before 1920	57	26	Q	Q	Q	1,432	724	Q	Q	Q	39.7	35.9	Q	Q	Q
1920 to 1945	68	53	14	Q	Q	1,677	1,418	388	Q	Q	40.6	37.1	35.0	Q	Q
1946 to 1959	117	49	15	10	Q	2,385	1,749	716	363	Q	49.0	28.0	21.6	26.5	Q
1960 to 1969	141	87	46	22	10	3,420	2,467	942	438	285	41.2	35.4	48.5	51.0	36.3
1970 to 1979	148	117	36	24	Q	3,337	2,363	1,330	768	Q	44.4	49.6	27.4	31.7	Q
1980 to 1989	152	77	35	46	17	3,484	3,054	1,337	1,415	598	43.5	25.3	25.9	32.8	27.7
1990 to 1999	155	99	38	28	11	3,857	2,963	1,099	947	295	40.1	33.5	34.2	29.1	38.6
2000 to 2003	82	40	16	12	Q	1,958	1,704	500	416	Q	41.9	23.5	32.6	28.2	Q
2004 to 2007	84	42	15	17	Q	1,547	1,489	471	397	Q	54.4	28.5	Q	42.8	Q
2008 to 2012	67	50	Q	Q	Q	1,414	1,430	661	Q	Q	47.4	35.0	50.5	Q	Q

Table C30. Natural gas consumption and conditional energy intensity by climate region, 2012

	Total natural gas consumption (billion cubic feet)					Total floorspace of buildings using natural gas (million square feet)					Natural gas energy intensity (cubic feet/square foot)				
	Very cold/cold	Mixed-humid	Mixed-hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-hot-dry	Hot-humid	Marine
All buildings	1,070	641	249	167	67	24,511	19,361	7,520	5,300	2,033	43.7	33.1	33.1	31.4	32.7
Census region and division															
Northeast	323	164	N	N	N	7,259	3,809	N	N	N	44.5	43.1	N	N	N
New England	108	N	N	N	N	2,241	N	N	N	N	48.1	N	N	N	N
Middle Atlantic	215	164	N	N	N	5,018	3,809	N	N	N	42.9	43.1	N	N	N
Midwest	561	65	N	N	N	13,130	1,895	N	N	N	42.7	34.5	N	N	N
East North Central	452	Q	N	N	N	9,944	Q	N	N	N	45.5	34.9	N	N	N
West North Central	109	36	N	N	N	3,185	1,050	N	N	N	34.3	34.3	N	N	N
South	N	411	23	167	N	N	13,656	944	5,300	N	N	30.1	24.0	31.4	N
South Atlantic	N	251	N	47	N	N	8,542	N	1,442	N	N	29.4	N	32.5	N
East South Central	N	79	N	22	N	N	2,813	N	623	N	N	28.0	N	35.6	N
West South Central	N	82	23	97	N	N	2,301	944	3,235	N	N	35.5	24.0	30.1	N
West	186	N	226	N	67	4,123	N	6,576	N	2,033	45.2	N	34.4	N	32.7
Mountain	131	N	29	N	N	2,872	N	894	N	N	45.6	N	31.9	N	N
Pacific	55	N	198	N	67	1,251	N	5,681	N	2,033	44.3	N	34.8	N	32.7
Number of floors															
One	399	260	122	86	29	9,104	8,144	3,965	2,540	744	43.9	31.9	30.7	34.0	38.3
Two	272	145	42	21	Q	6,764	4,589	1,651	1,027	634	40.3	31.5	25.6	20.9	28.2
Three	134	58	15	8	Q	3,265	1,858	494	339	Q	41.1	31.0	31.0	24.5	Q
Four to nine	185	133	61	41	13	4,022	3,323	1,064	1,025	330	46.0	40.0	57.3	39.8	37.9
Ten or more	79	46	9	10	Q	1,357	1,447	346	369	Q	58.4	31.7	24.8	25.9	Q
Number of workers (main shift)															
Fewer than 5	128	89	24	10	7	3,450	2,709	1,133	357	Q	37.1	32.8	21.3	28.6	32.4
5 to 9	84	64	26	17	Q	2,248	1,656	780	457	Q	37.2	38.5	33.1	36.3	Q
10 to 19	135	82	41	25	Q	2,811	2,055	1,171	503	Q	47.9	40.1	34.6	50.3	Q
20 to 49	178	102	39	32	18	4,577	3,229	1,382	906	520	39.0	31.6	28.0	35.6	34.2
50 to 99	196	99	25	23	Q	4,005	3,794	1,113	1,150	Q	48.9	26.0	22.6	19.8	Q
100 to 249	164	81	55	25	Q	3,766	3,010	1,060	878	Q	43.5	27.0	52.2	28.9	Q
250 or more	186	124	39	34	15	3,655	2,909	881	1,049	407	50.9	42.6	44.5	32.4	36.2
Weekly operating hours															
Fewer than 40	50	30	8	5	Q	1,533	1,226	503	352	Q	32.6	24.2	15.3	15.2	Q
40 to 48	135	64	39	8	7	3,911	3,506	1,529	654	360	34.5	18.3	25.3	11.5	19.2
49 to 60	205	100	18	20	17	6,012	4,648	1,489	1,188	669	34.1	21.5	12.4	17.1	25.4
61 to 84	222	132	55	37	12	5,156	3,480	1,542	936	380	43.1	37.9	35.5	39.9	30.5
85 to 167	177	99	21	30	Q	3,199	2,096	797	427	Q	55.3	47.2	26.8	70.0	Q
Open continuously	282	216	108	66	16	4,701	4,404	1,661	1,743	317	60.0	49.1	65.0	37.9	49.8
Ownership and occupancy															
Nongovernment owned	820	485	212	133	54	18,488	14,228	6,179	3,867	1,719	44.3	34.1	34.3	34.5	31.5
Owner occupied	430	253	103	62	21	8,997	6,294	2,716	1,917	618	47.8	40.2	38.0	32.2	33.3
Leased to tenant(s)	263	181	89	57	28	6,647	5,981	2,542	1,398	793	39.6	30.3	35.1	40.8	35.5
Owner occupied and leased	125	50	19	15	Q	2,672	1,914	836	552	Q	46.7	26.3	22.9	26.8	Q
Unoccupied	Q	Q	Q	N	Q	Q	Q	Q	N	Q	Q	Q	Q	N	Q
Government owned	251	156	37	33	12	6,023	5,133	1,341	1,433	315	41.6	30.5	27.5	23.0	39.3
Federal	13	11	Q	Q	Q	313	448	Q	Q	Q	42.8	24.9	Q	Q	Q
State	79	61	9	Q	Q	1,703	1,404	364	353	Q	46.1	43.8	26.1	28.5	Q
Local	159	84	25	21	6	4,007	3,280	932	1,026	193	39.6	25.5	26.6	20.4	33.1

Table C30. Natural gas consumption and conditional energy intensity by climate region, 2012

	Total natural gas consumption (billion cubic feet)					Total floorspace of buildings using natural gas (million square feet)					Natural gas energy intensity (cubic feet/square foot)				
	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine
All buildings	1,070	641	249	167	67	24,511	19,361	7,520	5,300	2,033	43.7	33.1	33.1	31.4	32.7
Party responsible for operation and maintenance of energy systems															
Building owner	918	510	192	134	53	20,953	15,877	5,997	4,512	1,760	43.8	32.1	32.0	29.6	30.4
Business owner or tenant	132	108	Q	31	Q	3,093	2,830	1,395	666	256	42.8	38.1	36.5	46.4	48.5
Property management	6	13	Q	Q	Q	211	415	Q	Q	Q	29.0	32.1	Q	Q	Q
Other	Q	Q	Q	Q	N	Q	Q	Q	Q	N	Q	Q	Q	Q	N
Provider of direct input on energy-related equipment purchases															
Building owner	948	528	202	133	57	21,704	16,478	6,384	4,553	1,826	43.7	32.0	31.7	29.2	31.1
Business owner or tenant	94	85	Q	28	Q	2,156	2,111	978	587	Q	43.6	40.4	41.6	48.2	Q
Property management	6	Q	Q	Q	N	173	Q	Q	Q	N	32.6	Q	Q	Q	N
Other	23	21	Q	Q	Q	478	532	Q	Q	Q	47.1	39.9	Q	Q	Q
Number of establishments															
One	703	475	172	99	40	15,702	12,336	4,794	3,284	1,040	44.8	38.5	35.8	30.2	38.9
2 to 5	240	90	36	38	14	5,352	3,948	1,384	1,159	588	44.9	22.8	25.9	32.6	24.2
6 to 10	50	25	13	Q	Q	1,242	1,073	375	Q	Q	40.1	23.4	33.9	Q	Q
11 to 20	48	32	14	14	Q	1,117	889	353	330	Q	42.7	36.3	40.4	Q	Q
More than 20	26	18	14	6	Q	895	1,012	529	315	Q	28.7	17.9	26.1	20.0	Q
Currently unoccupied	Q	Q	Q	N	Q	Q	Q	Q	N	Q	Q	Q	Q	N	Q
Predominant exterior wall material															
Brick, stone, or stucco	552	375	111	68	Q	11,912	10,651	3,191	2,570	675	46.3	35.2	34.9	26.5	36.9
Concrete (block or poured)	228	157	63	53	21	5,688	4,573	2,056	1,510	691	40.0	34.4	30.8	35.3	29.7
Concrete panels	131	30	17	18	7	2,405	1,507	1,175	552	299	54.6	19.7	14.3	32.8	24.6
Siding or shingles	62	24	Q	Q	Q	1,683	467	518	Q	Q	36.9	50.6	53.9	Q	Q
Metal panels	71	31	6	12	Q	1,957	1,610	304	388	Q	36.2	19.4	19.4	30.6	Q
Window glass	14	Q	Q	Q	Q	465	Q	Q	Q	Q	29.3	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant roof material															
Metal surfacing	101	82	16	29	Q	2,976	2,930	935	821	Q	33.8	27.9	16.8	35.0	Q
Synthetic or rubber	495	205	72	41	16	10,464	6,015	1,506	1,212	593	47.3	34.1	47.8	33.8	27.8
Built-up	228	197	71	49	22	5,559	5,526	2,358	1,862	721	41.0	35.7	30.3	26.6	31.1
Slate or tile shingles	40	26	26	10	Q	832	1,001	637	206	Q	48.1	Q	40.3	50.7	Q
Wooden materials (including shingles)	9	18	Q	Q	Q	160	169	Q	Q	Q	59.1	108.8	Q	Q	Q
Asphalt, fiberglass, or other shingles	184	92	45	31	7	4,037	3,104	1,512	962	281	45.7	29.8	29.5	31.9	23.7
Concrete	Q	12	Q	Q	Q	Q	332	Q	Q	Q	Q	35.4	Q	Q	Q
Other	Q	Q	Q	Q	N	Q	Q	Q	Q	N	Q	Q	Q	Q	N
No one major type	Q	Q	Q	N	Q	Q	Q	Q	N	Q	Q	Q	Q	N	Q
Roof characteristics															
Roof tilt															
Flat	668	422	180	109	41	15,178	11,482	4,593	3,311	1,269	44.0	36.8	39.1	32.8	32.2
Shallow pitch	242	125	44	38	21	5,508	5,019	2,089	1,320	564	43.9	25.0	21.0	28.7	37.0
Steeper pitch	160	93	25	20	5	3,825	2,859	838	670	200	42.0	32.6	30.4	30.1	24.0
Cool roof	241	176	96	54	21	5,434	4,669	2,023	1,711	514	44.3	37.8	47.4	31.4	40.8

Table C30. Natural gas consumption and conditional energy intensity by climate region, 2012

	Total natural gas consumption (billion cubic feet)					Total floorspace of buildings using natural gas (million square feet)					Natural gas energy intensity (cubic feet/square foot)				
	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine
All buildings	1,070	641	249	167	67	24,511	19,361	7,520	5,300	2,033	43.7	33.1	33.1	31.4	32.7
Renovations in buildings constructed before 2008 (more than one may apply)															
Any type of renovation	618	348	108	90	36	13,747	10,438	2,847	2,759	1,154	45.0	33.3	38.0	32.5	31.2
Addition or annex	251	133	Q	37	Q	5,008	3,394	617	939	Q	50.1	39.1	46.1	39.9	Q
Reduction in floorspace	16	Q	Q	Q	Q	340	810	Q	Q	Q	46.4	57.7	Q	Q	Q
Roof replacement	344	196	60	47	16	7,356	5,378	1,286	1,606	526	46.8	36.4	47.0	29.5	31.2
Exterior wall replacement	47	40	Q	14	Q	1,224	1,129	491	407	Q	38.3	35.2	42.5	Q	Q
Interior wall reconfiguration	340	159	57	50	22	7,659	4,890	1,459	1,308	758	44.4	32.5	39.1	38.5	29.2
Window replacement	209	101	24	34	10	4,427	3,093	664	666	436	47.2	32.6	36.6	50.9	21.9
HVAC equipment upgrade	407	251	78	63	23	9,127	6,889	1,833	1,913	675	44.6	36.4	42.4	33.1	33.9
Lighting upgrade	430	199	77	61	23	8,992	6,177	1,849	1,645	635	47.9	32.2	41.7	37.1	36.0
Electrical upgrade	288	136	58	41	15	5,654	3,879	1,129	1,221	491	51.0	35.0	51.4	33.6	29.5
Plumbing system upgrade	256	134	58	42	14	4,749	3,489	1,079	816	418	53.8	38.3	53.5	50.9	32.9
Insulation upgrade	142	63	Q	29	Q	2,958	1,805	491	471	Q	48.0	35.1	41.9	62.4	Q
Fire, safety, or security upgrade	268	156	61	48	22	5,839	4,231	1,244	1,370	543	45.8	36.9	49.1	34.9	40.3
Structural upgrade	71	31	Q	Q	Q	1,325	677	352	Q	Q	53.5	45.6	55.9	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No renovations	385	243	107	74	28	9,350	7,493	4,012	2,268	836	41.2	32.5	26.8	32.7	33.6
Buildings constructed 2008 or later	67	50	Q	Q	Q	1,414	1,430	661	Q	Q	47.4	35.0	50.5	Q	Q
Energy sources (more than one may apply)															
Electricity	1,070	641	249	167	67	24,511	19,361	7,520	5,300	2,033	43.7	33.1	33.1	31.4	32.7
Natural gas	1,070	641	249	167	67	24,511	19,361	7,520	5,300	2,033	43.7	33.1	33.1	31.4	32.7
Fuel oil	290	179	68	53	19	5,395	4,834	1,190	1,637	607	53.8	36.9	56.9	32.2	30.9
District heat	Q	Q	Q	Q	Q	1,074	1,493	Q	Q	Q	Q	Q	Q	Q	Q
District chilled water	Q	Q	Q	Q	Q	820	1,224	170	194	Q	Q	Q	134.5	66.1	Q
Propane	86	29	10	16	Q	1,591	887	490	356	Q	54.1	33.0	19.7	44.5	Q
Other	60	20	Q	Q	Q	1,438	643	341	Q	Q	41.6	31.4	Q	Q	Q
Space-heating energy sources															
Natural gas	1,007	552	202	104	58	22,436	15,774	6,268	3,316	1,717	44.9	35.0	32.3	31.4	33.8
Natural gas main	945	483	163	79	56	20,554	12,884	5,252	2,710	1,588	46.0	37.5	31.1	29.0	35.1
Natural gas secondary	62	68	39	26	Q	1,882	2,890	1,016	607	Q	32.8	23.6	38.6	42.1	Q
Other excluding natural gas	63	88	39	51	Q	2,044	3,578	1,086	1,629	280	30.9	24.5	36.0	31.5	16.5
Buildings without heating	Q	Q	Q	11	Q	Q	Q	Q	355	Q	Q	Q	Q	31.3	Q
Primary space-heating energy source															
Electricity	78	114	63	68	Q	2,526	4,582	1,979	2,141	321	30.7	24.9	31.8	31.7	14.4
Natural gas	945	483	163	79	56	20,554	12,884	5,252	2,710	1,588	46.0	37.5	31.1	29.0	35.1
Fuel oil	Q	5	N	N	N	Q	360	N	N	N	Q	15.1	N	N	N
District heat	Q	Q	Q	Q	Q	1,032	1,483	Q	Q	Q	Q	Q	Q	Q	Q
Propane	Q	Q	Q	N	N	Q	Q	Q	N	N	Q	Q	Q	N	N
Other	Q	Q	N	N	N	Q	Q	N	N	N	Q	Q	N	N	N
Cooling energy sources															
Natural gas	30	22	Q	Q	Q	403	272	Q	Q	Q	74.9	80.9	Q	Q	Q
Other excluding natural gas	995	607	244	165	58	22,970	18,728	7,325	5,276	1,868	43.3	32.4	33.3	31.2	30.8
Buildings without cooling	45	12	2	Q	Q	1,138	361	158	Q	Q	39.4	33.9	12.0	Q	Q
Water-heating energy sources															
Natural gas	839	514	201	124	50	16,960	11,896	5,927	3,447	1,294	49.4	43.2	34.0	36.0	38.9
Other excluding natural gas	216	114	44	41	14	7,014	6,724	1,327	1,784	647	30.8	16.9	32.9	22.8	21.7
Buildings without water heating	16	14	4	Q	Q	537	741	266	Q	Q	29.7	18.2	14.6	Q	Q

Table C30. Natural gas consumption and conditional energy intensity by climate region, 2012

	Total natural gas consumption (billion cubic feet)					Total floorspace of buildings using natural gas (million square feet)					Natural gas energy intensity (cubic feet/square foot)				
	Very cold/cold	Mixed-cold/humid	Mixed-hot-dry/hot-humid	Hot-humid	Marine	Very cold/cold	Mixed-cold/humid	Mixed-hot-dry/hot-humid	Hot-humid	Marine	Very cold/cold	Mixed-cold/humid	Mixed-hot-dry/hot-humid	Hot-humid	Marine
All buildings	1,070	641	249	167	67	24,511	19,361	7,520	5,300	2,033	43.7	33.1	33.1	31.4	32.7
Main equipment replaced since 1990 (more than one may apply)															
Heating	371	248	73	57	22	8,831	6,974	2,789	1,725	739	42.0	35.6	26.1	33.3	29.3
Cooling	423	261	82	71	22	9,590	7,817	2,755	2,242	689	44.1	33.4	29.9	31.7	32.1
Water-heating equipment															
Centralized system	693	419	130	99	38	15,179	10,784	4,230	2,832	980	45.7	38.9	30.8	34.9	38.5
Distributed system	127	49	50	21	Q	3,427	2,299	1,275	933	Q	37.1	21.4	39.0	22.4	Q
Combination of centralized and distributed system	234	159	65	45	23	5,367	5,536	1,749	1,466	685	43.6	28.7	37.1	30.6	33.5
Food preparation or serving areas in non-food service buildings (more than one may apply)															
Snack bar or concession stand	182	92	38	33	10	3,283	2,630	839	844	271	55.6	35.1	45.2	38.5	37.5
Fast food or small restaurant	160	92	51	49	11	2,944	2,513	1,350	1,221	316	54.2	36.8	37.9	40.0	33.5
Cafeteria or large restaurant	259	193	59	45	16	4,911	5,239	1,073	1,495	325	52.8	36.9	54.6	30.3	49.7
Commercial kitchen/food preparation area	317	205	67	50	18	5,862	4,702	1,403	1,763	352	54.0	43.6	47.8	28.3	51.5
Small kitchen area	223	110	31	27	8	4,820	3,527	1,102	1,154	279	46.3	31.3	27.8	23.3	26.9
HVAC conservation features (more than one may apply)															
Economizer cycle	524	254	124	57	33	11,676	7,198	3,058	1,615	1,137	44.8	35.3	40.4	35.0	29.0
Regular HVAC maintenance	965	553	221	149	55	21,395	16,426	6,449	4,755	1,666	45.1	33.6	34.2	31.3	33.1
Building automation system (BAS) ²	531	262	150	99	31	11,678	8,783	3,369	2,934	1,056	45.4	29.9	44.5	33.7	29.8
Window and interior lighting features (more than one may apply)															
Multipaned windows	925	473	147	115	49	20,517	14,990	3,905	3,075	1,287	45.1	31.5	37.6	37.5	38.3
Tinted window glass	556	382	157	115	49	12,194	10,966	4,817	3,203	1,450	45.6	34.9	32.5	35.8	33.6
Reflective window glass	258	133	78	38	21	5,332	3,314	1,816	1,137	452	48.4	40.1	43.2	33.1	45.6
External overhangs or awnings	440	311	126	90	39	9,079	7,538	3,145	2,495	962	48.4	41.2	39.9	36.0	40.8
Skylights or atriums	305	185	81	60	32	6,592	5,361	2,460	1,494	838	46.3	34.6	32.8	40.5	38.5
Light scheduling	462	215	113	80	36	9,885	6,723	3,262	2,266	973	46.7	31.9	34.7	35.1	36.6
Occupancy sensors	558	237	117	85	44	12,241	7,515	3,245	2,703	1,268	45.6	31.5	36.1	31.5	35.0
Multi-level lighting or dimming	248	156	99	36	20	4,712	3,751	1,729	1,004	507	52.6	41.7	57.5	35.8	39.2
Daylight harvesting	94	40	34	17	Q	2,168	1,205	784	601	Q	43.4	33.4	43.7	28.2	Q
Demand responsive lighting	47	40	23	11	Q	1,216	1,124	973	268	Q	38.5	35.8	23.5	39.4	Q
Building automation system (BAS) for lighting ²	182	64	44	24	12	4,128	2,540	1,357	990	386	44.1	25.1	32.8	24.2	31.9
Equipment usage reduced when building not in full use (more than one may apply)															
Heating	820	482	181	103	48	19,735	15,659	6,228	3,592	1,603	41.6	30.8	29.0	28.7	29.9
Cooling	787	470	185	116	45	18,722	15,340	6,201	4,017	1,447	42.0	30.7	29.9	29.0	30.9
Lighting	1,015	596	230	150	64	23,235	18,079	6,910	4,850	1,959	43.7	32.9	33.2	30.9	32.4

Table C30. Natural gas consumption and conditional energy intensity by climate region, 2012

	Total natural gas consumption (billion cubic feet)					Total floorspace of buildings using natural gas (million square feet)					Natural gas energy intensity (cubic feet/square foot)				
	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine	Very cold/cold	Mixed-humid	Mixed-dry/hot-dry	Hot-humid	Marine
All buildings	1,070	641	249	167	67	24,511	19,361	7,520	5,300	2,033	43.7	33.1	33.1	31.4	32.7
Annual consumption (hundred cubic feet)															
1,000 or less	21	17	8	4	1	1,757	2,491	1,649	906	Q	11.8	7.0	4.9	4.0	8.8
1,001 to 5,000	133	86	33	16	7	5,090	4,791	1,936	1,035	484	26.2	18.0	17.0	15.5	13.9
5,001 to 10,000	103	80	24	19	7	2,811	3,072	898	921	285	36.5	25.9	26.3	21.0	23.3
10,001 to 25,000	192	138	57	36	25	4,791	3,635	1,276	963	491	40.2	37.9	44.5	37.1	51.5
25,001 to 50,000	154	94	27	19	10	3,349	2,300	579	498	429	46.1	40.8	46.9	37.1	22.8
50,001 to 100,000	160	54	28	31	Q	3,061	1,235	476	455	Q	52.3	43.3	58.9	68.3	Q
Over 100,000	307	173	72	42	Q	3,652	1,836	705	523	Q	84.0	94.1	102.4	80.6	Q

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and Cof the 2012 Commercial Buildings Energy Consumption Survey.

Table C31. Natural gas consumption and conditional energy intensity by building size, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 feet
All buildings	491	903	799	8,575	26,906	23,244	57.3	33.6	34.4
Principal building activity									
Education	14	140	130	376	4,483	4,661	37.1	31.1	28.0
Food sales	13	36	Q	229	484	Q	55.3	74.9	Q
Food service	184	37	N	1,087	307	N	169.7	121.8	N
Health care	10	40	208	307	821	2,164	31.8	48.9	96.3
Inpatient	N	17	197	N	234	1,878	N	71.4	104.8
Outpatient	10	23	12	307	587	286	31.8	39.9	40.7
Lodging	8	103	105	152	2,303	2,462	52.7	44.6	42.5
Mercantile	50	152	82	1,003	3,922	3,568	49.9	38.9	22.9
Retail (other than mall)	20	32	21	706	1,419	1,246	28.1	22.5	16.6
Enclosed and strip malls	30	121	61	298	2,503	2,322	101.7	48.2	26.2
Office	54	121	101	1,821	4,431	4,038	29.4	27.4	24.9
Public assembly	22	65	45	544	2,007	1,337	40.2	32.5	33.5
Public order and safety	9	15	16	169	490	348	50.6	30.8	46.2
Religious worship	29	53	Q	710	2,129	Q	40.7	24.8	Q
Service	70	47	Q	1,118	1,614	Q	62.5	28.9	Q
Warehouse and storage	16	55	65	737	2,779	3,490	21.2	19.7	18.8
Other	12	30	37	221	545	612	52.5	55.2	60.6
Vacant	Q	9	Q	Q	592	Q	Q	14.8	Q
Year constructed									
Before 1920	28	33	24	635	1,009	677	43.9	32.7	36.1
1920 to 1945	48	55	38	838	1,778	1,175	57.6	30.8	32.7
1946 to 1959	47	79	68	959	2,585	1,849	49.5	30.4	37.0
1960 to 1969	61	142	104	1,235	3,790	2,529	49.4	37.5	41.0
1970 to 1979	80	122	130	1,256	3,393	3,330	63.4	36.0	38.9
1980 to 1989	70	148	108	1,289	4,346	4,252	54.6	34.1	25.4
1990 to 1999	69	137	124	1,191	4,276	3,694	58.0	32.1	33.6
2000 to 2003	29	62	63	456	1,963	2,303	63.3	31.6	27.4
2004 to 2007	27	56	84	323	1,980	1,793	84.7	28.5	46.8
2008 to 2012	31	69	56	392	1,786	1,643	79.3	38.5	33.9
Census region and division									
Northeast	72	190	225	1,108	4,861	5,098	65.0	39.1	44.2
New England	12	42	54	275	1,094	872	44.6	38.0	61.9
Middle Atlantic	60	148	171	833	3,767	4,226	71.7	39.4	40.5
Midwest	135	281	211	2,504	6,995	5,527	54.1	40.1	38.1
East North Central	98	216	167	1,676	4,943	4,171	58.6	43.7	40.1
West North Central	37	65	43	828	2,052	1,356	45.0	31.5	32.0
South	174	253	173	2,802	9,274	7,824	62.1	27.3	22.1
South Atlantic	88	115	94	1,074	4,409	4,502	82.3	26.1	21.0
East South Central	19	53	29	551	1,653	1,232	35.4	31.9	23.4
West South Central	66	86	50	1,177	3,212	2,091	56.2	26.6	23.9
West	110	179	190	2,161	5,776	4,795	50.7	31.0	39.7
Mountain	38	51	Q	699	1,513	1,554	54.7	33.5	45.4
Pacific	71	129	120	1,462	4,263	3,241	48.8	30.1	37.0

Table C31. Natural gas consumption and conditional energy intensity by building size, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 feet
All buildings	491	903	799	8,575	26,906	23,244	57.3	33.6	34.4
Climate region¹									
Very cold/Cold	207	464	399	3,706	11,313	9,492	55.9	41.0	42.0
Mixed-humid	169	246	226	2,666	8,624	8,071	63.3	28.6	28.0
Mixed-dry/Hot-dry	60	91	98	1,328	3,547	2,645	45.4	25.6	37.0
Hot-humid	42	67	58	623	2,353	2,324	67.7	28.4	24.8
Marine	13	35	19	252	1,070	712	50.3	32.8	26.4
Number of floors									
One	343	433	121	5,693	12,525	6,278	60.2	34.6	19.2
Two	110	251	137	2,166	8,148	4,350	51.0	30.8	31.5
Three	31	113	75	590	3,186	2,309	52.9	35.5	32.4
Four to nine	Q	102	323	Q	2,996	6,644	Q	34.1	48.7
Ten or more	N	Q	144	N	Q	3,663	N	Q	39.2
Number of workers (main shift)									
Fewer than 5	172	80	Q	3,898	3,458	Q	44.2	23.0	Q
5 to 9	119	74	Q	2,360	2,644	Q	50.4	28.1	Q
10 to 19	146	137	8	1,750	4,425	624	83.4	30.9	13.0
20 to 49	53	276	40	561	8,133	1,918	95.2	33.9	20.9
50 to 99	Q	220	131	Q	5,690	4,624	Q	38.7	28.3
100 to 249	N	109	220	N	2,329	6,551	N	46.7	33.6
250 or more	N	8	390	N	226	8,674	N	34.1	45.0
Weekly operating hours									
Fewer than 40	42	48	5	1,295	1,989	421	32.2	24.2	11.8
40 to 48	80	126	46	2,295	5,059	2,606	34.8	24.9	17.7
49 to 60	100	179	81	2,401	7,322	4,282	41.8	24.4	19.0
61 to 84	117	215	127	1,192	5,492	4,810	97.8	39.1	26.4
85 to 167	105	138	97	740	2,708	3,286	141.6	50.9	29.6
Open continuously	48	197	443	652	4,336	7,839	73.3	45.5	56.5
Ownership and occupancy									
Nongovernment owned	448	677	579	7,555	20,132	16,794	59.4	33.6	34.5
Owner occupied	245	320	303	4,137	9,422	6,983	59.3	34.0	43.3
Leased to tenant(s)	186	274	159	2,877	7,965	6,519	64.5	34.4	24.4
Owner occupied and leased	16	80	117	489	2,481	3,285	32.9	32.3	35.7
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government owned	43	226	220	1,020	6,774	6,450	41.8	33.4	34.2
Federal	Q	Q	19	Q	Q	450	Q	Q	41.2
State	8	73	84	141	1,729	2,068	54.0	42.4	40.8
Local	32	145	118	815	4,690	3,933	39.1	30.9	29.9
Party responsible for operation and maintenance of energy systems									
Building owner	384	723	700	7,111	22,274	19,715	54.0	32.5	35.5
Business owner or tenant	95	153	86	1,278	4,021	2,941	74.6	38.0	29.3
Property management	Q	Q	9	Q	Q	455	Q	Q	20.6
Other	Q	16	Q	Q	368	Q	Q	42.5	Q

Table C31. Natural gas consumption and conditional energy intensity by building size, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet
All buildings	491	903	799	8,575	26,906	23,244	57.3	33.6	34.4
Provider of direct input on energy-related equipment purchases									
Building owner	397	761	710	7,353	23,438	20,156	54.0	32.5	35.2
Business owner or tenant	73	116	69	968	2,798	2,258	75.9	41.4	30.4
Property management	Q	Q	8	Q	Q	369	Q	Q	21.6
Other	16	22	13	204	573	462	79.4	37.7	28.0
Number of establishments									
One	412	588	490	6,791	17,387	12,978	60.6	33.8	37.8
2 to 5	71	171	176	1,521	5,686	5,225	46.5	30.2	33.7
6 to 10	6	63	35	172	1,827	1,094	36.4	34.7	31.9
11 to 20	Q	60	48	Q	1,372	1,357	Q	44.0	35.7
More than 20	N	16	50	N	343	2,520	N	46.0	19.7
Currently unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant exterior wall material									
Brick, stone, or stucco	269	494	369	4,110	14,475	10,414	65.4	34.1	35.4
Concrete (block or poured)	103	214	205	1,740	6,477	6,301	59.1	33.0	32.6
Concrete panels	8	70	126	168	1,881	3,889	47.0	37.1	32.3
Siding or shingles	57	51	Q	1,168	1,344	Q	48.7	37.6	Q
Metal panels	43	60	19	1,272	2,282	832	34.2	26.4	22.9
Window glass	Q	Q	Q	Q	Q	833	Q	Q	38.5
Other	Q	Q	Q	Q	Q	324	Q	Q	55.8
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant roof material									
Metal surfacing	112	95	28	2,161	3,971	1,694	51.6	24.0	16.8
Synthetic or rubber	107	345	377	1,530	8,539	9,721	70.0	40.4	38.8
Built-up	67	202	299	1,217	7,081	7,728	55.0	28.6	38.7
Slate or tile shingles	47	56	8	672	1,494	Q	69.5	37.5	Q
Wooden materials (including shingles)	24	Q	Q	312	Q	Q	77.1	Q	Q
Asphalt, fiberglass, or other shingles	128	175	56	2,560	5,013	2,323	50.0	34.9	24.0
Concrete	Q	Q	13	Q	Q	522	Q	Q	25.2
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q
Roof characteristics									
Roof tilt									
Flat	207	573	640	2,947	15,811	17,074	70.1	36.3	37.5
Shallow pitch	166	179	125	3,244	6,462	4,794	51.1	27.7	26.0
Steeper pitch	119	151	35	2,384	4,632	1,376	49.8	32.5	25.3
Cool roof	80	208	300	1,175	4,821	8,357	68.0	43.2	35.8

Table C31. Natural gas consumption and conditional energy intensity by building size, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet
All buildings	491	903	799	8,575	26,906	23,244	57.3	33.6	34.4
Renovations in buildings constructed before 2008 (more than one may apply)									
Any type of renovation	219	455	526	3,651	13,315	13,978	59.9	34.2	37.6
Addition or annex	50	133	273	768	3,942	5,396	65.3	33.8	50.7
Reduction in floorspace	9	8	Q	144	378	862	65.8	20.3	58.7
Roof replacement	94	247	323	1,796	6,469	7,887	52.6	38.2	40.9
Exterior wall replacement	23	34	70	316	1,286	1,793	71.7	26.3	38.9
Interior wall reconfiguration	90	224	315	1,623	6,683	7,769	55.6	33.4	40.5
Window replacement	66	129	183	1,020	4,026	4,239	64.9	31.9	43.2
HVAC equipment upgrade	120	292	409	1,959	8,407	10,072	61.3	34.8	40.6
Lighting upgrade	110	288	392	1,784	7,317	10,197	61.6	39.4	38.4
Electrical upgrade	92	156	289	1,415	4,559	6,400	65.1	34.3	45.1
Plumbing system upgrade	82	163	257	1,197	4,203	5,150	68.7	38.7	50.0
Insulation upgrade	42	80	141	755	2,375	2,764	55.0	33.5	51.1
Fire, safety, or security upgrade	70	181	304	1,177	4,833	7,217	59.2	37.5	42.1
Structural upgrade	23	37	88	309	1,078	1,447	74.4	34.3	60.6
Other	Q	Q	6	Q	Q	370	Q	Q	16.0
No renovations	241	379	218	4,531	11,805	7,623	53.2	32.1	28.5
Buildings constructed 2008 or later	31	69	56	392	1,786	1,643	79.3	38.5	33.9
Energy sources (more than one may apply)									
Electricity	491	903	799	8,575	26,906	23,244	57.3	33.6	34.4
Natural gas	491	903	799	8,575	26,906	23,244	57.3	33.6	34.4
Fuel oil	17	146	445	292	3,316	10,055	56.8	44.2	44.3
District heat	Q	6	99	Q	289	2,553	Q	19.2	38.6
District chilled water	Q	10	113	Q	338	2,071	Q	30.2	54.6
Propane	9	66	68	176	1,321	1,899	49.9	49.9	35.8
Other	8	43	55	157	1,132	1,349	51.0	37.8	40.8
Space-heating energy sources									
Natural gas	421	819	683	7,665	23,741	18,104	54.9	34.5	37.7
Natural gas main	364	738	623	6,851	19,975	16,161	53.2	37.0	38.6
Natural gas secondary	57	80	60	814	3,766	1,943	69.5	21.3	30.9
Other excluding natural gas	57	75	114	764	2,956	4,897	74.9	25.3	23.2
Buildings without heating	13	Q	Q	145	Q	Q	89.4	Q	Q
Primary space-heating energy source									
Electricity	109	143	75	1,469	5,956	4,124	74.3	24.0	18.2
Natural gas	364	738	623	6,851	19,975	16,161	53.2	37.0	38.6
Fuel oil	Q	Q	Q	Q	Q	Q	Q	Q	Q
District heat	Q	6	96	Q	289	2,484	Q	19.2	38.8
Propane	Q	Q	N	Q	Q	N	Q	Q	N
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling energy sources									
Natural gas	Q	Q	50	Q	Q	564	Q	Q	88.6
Other excluding natural gas	460	861	747	7,806	25,771	22,589	58.9	33.4	33.1
Buildings without cooling	30	36	Q	739	996	Q	40.4	36.0	Q

Table C31. Natural gas consumption and conditional energy intensity by building size, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet
All buildings	491	903	799	8,575	26,906	23,244	57.3	33.6	34.4
Main equipment replaced since 1990 (more than one may apply)									
Heating	217	345	209	3,648	10,175	7,234	59.5	33.9	28.9
Cooling	223	350	287	3,734	10,478	8,880	59.7	33.4	32.3
Water-heating equipment									
Centralized system	374	567	439	6,349	16,787	10,869	58.9	33.7	40.4
Distributed system	48	111	92	1,043	3,636	3,532	45.6	30.5	26.1
Combination of centralized and distributed system	44	215	266	576	5,713	8,514	75.9	37.7	31.3
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar or concession stand	11	67	278	173	1,475	6,219	61.8	45.5	44.6
Fast food or small restaurant	31	130	202	300	2,393	5,652	102.3	54.2	35.8
Cafeteria or large restaurant	Q	128	443	Q	3,359	9,663	Q	38.1	45.9
Commercial kitchen/food preparation area	14	217	425	367	4,851	8,864	38.4	44.8	48.0
Small kitchen area	46	156	196	1,300	4,701	4,882	35.6	33.2	40.2
HVAC conservation features (more than one may apply)									
Economizer cycle	75	330	585	746	8,815	15,122	101.2	37.4	38.7
Regular HVAC maintenance	357	805	780	5,425	23,040	22,226	65.8	35.0	35.1
Building automation system (BAS) ²	64	353	656	992	9,711	17,118	64.9	36.3	38.3
Window and interior lighting features (more than one may apply)									
Multipaned windows	332	710	666	5,349	20,051	18,374	62.1	35.4	36.3
Tinted window glass	193	488	577	3,140	14,413	15,078	61.4	33.9	38.3
Reflective window glass	52	191	285	984	4,845	6,221	52.4	39.4	45.8
External overhangs or awnings	221	405	380	3,286	10,445	9,489	67.2	38.8	40.0
Skylights or atriums	37	220	407	783	6,146	9,816	47.7	35.8	41.4
Light scheduling	116	352	437	1,574	9,154	12,381	73.6	38.5	35.3
Occupancy sensors	66	398	577	1,046	10,434	15,492	63.5	38.2	37.2
Multi-level lighting or dimming	60	206	294	583	4,359	6,762	102.9	47.2	43.4
Daylight harvesting	9	64	120	116	1,537	3,268	78.2	41.6	36.6
Demand responsive lighting	16	53	56	270	1,523	1,885	58.8	34.5	29.5
Building automation system (BAS) for lighting ²	17	126	184	240	3,116	6,045	70.5	40.5	30.4
Equipment usage reduced when building not in full use (more than one may apply)									
Heating	381	666	588	6,786	21,648	18,384	56.1	30.8	32.0
Cooling	367	655	582	6,401	20,876	18,450	57.3	31.4	31.5
Lighting	465	841	747	8,153	25,244	21,636	57.1	33.3	34.5

Table C31. Natural gas consumption and conditional energy intensity by building size, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet	1,001 to 10,000 square feet	10,001 to 100,000 square feet	Over 100,000 square feet
All buildings	491	903	799	8,575	26,906	23,244	57.3	33.6	34.4
Annual consumption (hundred cubic feet)									
1,000 or less	44	7	(*)	3,379	2,499	1,074	13.1	2.7	0.2
1,001 to 5,000	176	97	2	3,877	8,034	1,425	45.3	12.1	1.6
5,001 to 10,000	92	132	7	678	5,307	2,002	136.0	24.9	3.7
10,001 to 25,000	143	270	35	570	6,561	4,026	251.1	41.1	8.7
25,001 to 50,000	Q	202	78	Q	3,067	4,037	Q	65.9	19.4
50,001 to 100,000	Q	123	142	Q	1,048	4,211	Q	117.7	33.8
Over 100,000	N	Q	534	N	Q	6,469	N	Q	82.5

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

(*) = Value rounds to zero in the units displayed.

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and C of the 2012 Commercial Buildings Energy Consumption Survey.

Table C32. Natural gas consumption and conditional energy intensity by year constructed, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	421	965	807	11,504	25,420	21,801	36.6	38.0	37.0
Building floorspace (square feet)									
1,001 to 5,000	69	98	82	1,196	1,475	1,086	58.0	66.4	75.5
5,001 to 10,000	54	113	74	1,236	2,305	1,276	43.9	49.1	58.3
10,001 to 25,000	59	152	86	2,187	3,785	2,852	27.0	40.0	30.2
25,001 to 50,000	51	134	93	1,497	3,851	2,800	33.8	34.7	33.1
50,001 to 100,000	57	127	146	1,688	3,893	4,354	33.7	32.7	33.5
100,001 to 200,000	40	138	105	1,476	3,732	4,207	27.1	36.9	25.0
200,001 to 500,000	65	115	122	1,549	3,800	2,944	42.1	30.2	41.5
Over 500,000	26	89	99	675	2,578	2,281	38.5	34.4	43.4
Principal building activity									
Education	79	114	91	2,357	3,729	3,434	33.5	30.6	26.5
Food sales	Q	20	27	Q	317	421	Q	62.4	63.6
Food service	47	95	80	409	532	453	114.4	179.0	176.3
Health care	32	111	116	440	1,493	1,359	72.2	74.4	85.1
Inpatient	25	96	93	245	1,045	822	101.1	91.7	113.0
Outpatient	7	15	23	194	448	537	35.6	33.9	42.3
Lodging	24	104	87	594	2,356	1,968	40.0	44.3	44.3
Mercantile	23	139	121	863	3,679	3,952	27.0	37.9	30.7
Retail (other than mall)	12	22	39	554	959	1,858	21.0	22.5	21.1
Enclosed and strip malls	Q	118	82	Q	2,720	2,094	Q	43.3	39.2
Office	79	135	62	2,220	5,169	2,901	35.5	26.1	21.2
Public assembly	32	49	51	1,154	1,250	1,485	27.8	39.3	34.1
Public order and safety	Q	15	17	Q	296	507	Q	50.2	33.4
Religious worship	27	34	24	968	1,100	949	27.4	31.0	25.5
Service	30	55	34	601	1,348	841	50.4	40.8	40.1
Warehouse and storage	29	53	53	916	3,166	2,925	32.0	16.8	18.2
Other	Q	33	42	Q	570	441	Q	58.5	94.2
Vacant	3	6	Q	307	415	Q	8.9	15.2	Q
Census region and division									
Northeast	139	195	154	3,248	4,442	3,378	42.7	43.8	45.6
New England	27	35	46	599	890	752	45.6	39.3	60.6
Middle Atlantic	111	160	108	2,649	3,552	2,626	42.0	45.0	41.3
Midwest	142	285	200	3,470	6,491	5,064	40.9	43.8	39.5
East North Central	109	216	157	2,568	4,448	3,774	42.6	48.5	41.5
West North Central	33	69	44	902	2,042	1,291	36.1	33.8	33.8
South	80	281	239	2,971	8,467	8,463	27.0	33.2	28.3
South Atlantic	37	123	138	1,518	3,841	4,625	24.4	32.0	29.7
East South Central	17	53	31	413	1,778	1,245	40.6	30.1	24.8
West South Central	26	105	71	1,040	2,847	2,593	25.3	36.8	27.3
West	61	204	214	1,815	6,020	4,897	33.4	33.9	43.7
Mountain	18	61	81	453	1,636	1,677	39.4	37.1	48.2
Pacific	43	144	133	1,362	4,384	3,220	31.4	32.8	41.4

Table C32. Natural gas consumption and conditional energy intensity by year constructed, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	421	965	807	11,504	25,420	21,801	36.6	38.0	37.0
Provider of direct input on energy-related equipment purchases									
Building owner	375	820	673	10,490	22,166	18,291	35.8	37.0	36.8
Business owner or tenant	38	117	103	789	2,564	2,672	47.8	45.7	38.6
Property management	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	21	24	Q	468	600	Q	44.1	40.7
Number of establishments									
One	294	630	566	7,344	15,383	14,430	40.0	40.9	39.3
2 to 5	94	185	139	2,794	5,174	4,463	33.7	35.7	31.1
6 to 10	15	49	41	575	1,540	977	25.8	32.0	41.5
11 to 20	Q	59	45	Q	1,269	1,259	Q	46.5	35.4
More than 20	11	38	16	452	1,829	581	24.1	21.0	27.6
Currently unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant exterior wall material									
Brick, stone, or stucco	281	483	367	7,889	11,765	9,345	35.6	41.1	39.3
Concrete (block or poured)	84	282	155	2,148	7,316	5,053	39.2	38.6	30.7
Concrete panels	7	70	125	233	2,446	3,260	32.1	28.8	38.5
Siding or shingles	28	52	51	839	1,027	1,022	33.4	50.7	49.6
Metal panels	Q	46	59	Q	2,032	2,121	Q	22.8	27.8
Window glass	Q	17	Q	Q	501	489	Q	33.0	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant roof material									
Metal surfacing	22	101	112	843	2,773	4,209	25.9	36.4	26.7
Synthetic or rubber	160	299	371	3,819	7,977	7,994	41.8	37.5	46.4
Built-up	97	317	154	2,911	8,611	4,503	33.5	36.8	34.1
Slate or tile shingles	47	34	31	1,057	844	900	44.3	39.8	Q
Wooden materials (including shingles)	Q	24	Q	Q	323	Q	Q	73.9	Q
Asphalt, fiberglass, or other shingles	78	165	116	2,421	3,978	3,497	32.2	41.4	33.1
Concrete	Q	10	10	Q	436	321	Q	24.1	32.5
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q
Roof characteristics									
Roof tilt									
Flat	260	674	485	6,996	17,364	11,473	37.2	38.8	42.3
Shallow pitch	83	180	206	2,194	5,550	6,757	38.0	32.5	30.5
Steeper pitch	78	110	116	2,315	2,506	3,571	33.6	43.9	32.6
Cool roof	96	233	258	2,249	5,907	6,196	42.6	39.5	41.7

Table C32. Natural gas consumption and conditional energy intensity by year constructed, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	421	965	807	11,504	25,420	21,801	36.6	38.0	37.0
Cooling energy sources									
Natural gas	Q	22	Q	Q	282	Q	Q	79.4	Q
Other excluding natural gas	377	914	777	10,587	24,422	21,158	35.6	37.4	36.7
Buildings without cooling	24	29	16	666	716	444	35.5	40.1	35.6
Water-heating energy sources									
Natural gas	330	770	627	7,294	17,542	14,687	45.3	43.9	42.7
Other excluding natural gas	81	179	168	3,459	7,370	6,666	23.4	24.3	25.2
Buildings without water heating	10	16	12	751	507	448	13.1	30.8	26.9
Cooking energy sources									
Natural gas	212	534	462	4,443	10,793	9,534	47.7	49.5	48.4
Other excluding natural gas	50	81	69	1,606	2,226	2,425	31.4	36.4	28.3
Buildings without cooking	159	350	277	5,456	12,400	9,842	29.1	28.2	28.2
Energy end uses (more than one may apply)									
Buildings with space heating	416	953	800	11,408	25,082	21,639	36.5	38.0	36.9
Buildings with cooling	398	936	791	10,838	24,703	21,357	36.7	37.9	37.1
Buildings with water heating	411	949	795	10,753	24,912	21,353	38.3	38.1	37.2
Buildings with cooking	262	615	530	6,049	13,019	11,959	43.4	47.2	44.3
Buildings with manufacturing	29	51	41	929	1,708	1,102	30.9	29.8	36.9
Buildings with electricity generation	101	333	401	2,370	8,638	9,263	42.5	38.5	43.3
Percent of floorspace heated									
Not heated	Q	12	Q	Q	337	Q	Q	35.5	Q
1 to 50	25	52	43	1,225	2,815	1,676	20.5	18.5	25.7
51 to 99	90	180	161	2,596	4,465	4,086	34.8	40.4	39.5
100	301	720	595	7,586	17,802	15,877	39.7	40.5	37.5
Percent of floorspace cooled									
Not cooled	24	29	16	666	716	444	35.5	40.1	35.6
1 to 50	131	170	107	3,266	5,893	3,871	40.0	28.9	27.7
51 to 99	113	269	269	3,589	7,057	6,460	31.6	38.0	41.6
100	154	497	415	3,983	11,753	11,025	38.6	42.3	37.6
Heating equipment (more than one may apply)									
Heat pumps	45	97	99	1,372	3,133	3,055	33.0	30.9	32.5
Furnaces	51	107	80	1,384	3,372	2,290	36.8	31.9	35.0
Individual space heaters	129	247	156	3,778	6,951	5,079	34.2	35.5	30.6
District heat	9	Q	Q	581	1,174	1,078	14.9	48.9	Q
Boilers	226	403	330	5,001	8,675	6,342	45.3	46.5	52.1
Packaged heating units	215	601	511	6,313	16,317	14,940	34.0	36.8	34.2
Other	Q	18	31	Q	434	663	Q	42.4	46.4

Table C32. Natural gas consumption and conditional energy intensity by year constructed, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	421	965	807	11,504	25,420	21,801	36.6	38.0	37.0
Cooling equipment (more than one may apply)									
Residential-type central air conditioners	89	192	124	2,359	4,918	3,226	37.8	39.1	38.5
Heat pumps	49	108	93	1,563	3,371	3,083	31.5	31.9	30.3
Individual air conditioners	121	171	73	2,976	3,997	2,164	40.7	42.8	33.7
District chilled water	5	61	Q	191	1,151	1,089	27.7	52.8	Q
Central chillers	102	261	221	2,549	6,386	4,810	40.0	40.8	46.0
Packaged air conditioning units	215	579	492	6,027	15,288	13,602	35.7	37.9	36.1
Swamp coolers	16	35	18	248	654	634	65.6	52.9	29.1
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Main equipment replaced since 1990 (more than one may apply)									
Heating	228	543	N	6,646	14,412	N	34.3	37.7	N
Cooling	255	605	N	7,506	15,587	N	34.0	38.8	N
Water-heating equipment									
Centralized system	273	580	526	6,713	14,556	12,735	40.7	39.8	41.3
Distributed system	62	111	78	1,601	3,867	2,743	38.6	28.7	28.4
Combination of centralized and distributed system	76	259	191	2,439	6,489	5,875	31.3	39.8	32.5
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar or concession stand	40	151	164	1,005	3,527	3,336	40.2	42.8	49.2
Fast food or small restaurant	31	163	169	835	3,777	3,733	36.7	43.1	45.4
Cafeteria or large restaurant	95	256	222	2,339	5,996	4,708	40.7	42.6	47.1
Commercial kitchen/food preparation area	102	294	261	2,336	6,195	5,552	43.6	47.4	47.0
Small kitchen area	100	159	140	2,801	4,183	3,899	35.7	38.0	36.0
HVAC conservation features (more than one may apply)									
Economizer cycle	129	412	450	3,553	10,587	10,543	36.2	38.9	42.7
Regular HVAC maintenance	343	862	738	8,859	22,036	19,796	38.7	39.1	37.3
Building automation system (BAS) ²	147	428	498	3,844	11,380	12,598	38.3	37.6	39.5

Table C32. Natural gas consumption and conditional energy intensity by year constructed, 2012

	Total natural gas consumption (billion cubic feet)			Total floorspace of buildings using natural gas (million square feet)			Natural gas energy intensity (cubic feet/square foot)		
	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	421	965	807	11,504	25,420	21,801	36.6	38.0	37.0
Window and interior lighting features (more than one may apply)									
Multipaned windows	284	704	721	7,427	17,931	18,416	38.2	39.3	39.2
Tinted window glass	186	575	498	4,794	14,758	13,079	38.7	39.0	38.1
Reflective window glass	63	207	258	1,552	5,264	5,234	40.7	39.3	49.2
External overhangs or awnings	149	459	397	3,300	10,776	9,143	45.3	42.6	43.4
Skylights or atriums	87	303	274	2,293	7,732	6,721	37.8	39.2	40.8
Light scheduling	130	376	399	3,256	9,678	10,175	39.8	38.8	39.3
Occupancy sensors	161	431	449	3,951	11,337	11,684	40.8	38.1	38.4
Multi-level lighting or dimming	68	215	277	1,580	4,699	5,425	42.7	45.7	51.1
Daylight harvesting	28	84	81	522	2,047	2,351	53.2	41.0	34.3
Demand responsive lighting	21	57	47	383	1,722	1,574	54.7	32.9	29.6
Building automation system (BAS) for lighting ²	45	114	168	847	3,612	4,942	52.8	31.6	34.0
Equipment usage reduced when building not in full use (more than one may apply)									
Heating	335	706	593	9,145	20,019	17,654	36.7	35.3	33.6
Cooling	319	695	590	8,684	19,680	17,362	36.7	35.3	34.0
Lighting	407	905	743	11,022	23,946	20,065	36.9	37.8	37.0
Annual consumption (hundred cubic feet)									
1,000 or less	17	21	13	1,561	3,247	2,143	10.9	6.6	6.0
1,001 to 5,000	82	113	81	3,106	5,498	4,731	26.4	20.5	17.0
5,001 to 10,000	54	109	68	1,945	3,411	2,631	27.9	32.0	26.0
10,001 to 25,000	78	195	175	1,849	4,816	4,491	42.2	40.4	39.0
25,001 to 50,000	51	139	114	1,234	2,948	2,974	41.2	47.1	38.4
50,001 to 100,000	32	131	115	664	2,339	2,275	47.5	56.2	50.6
Over 100,000	108	257	241	1,144	3,161	2,556	94.2	81.3	94.3

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and C of the 2012 Commercial Buildings Energy Consumption Survey.