

**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
<b>All buildings</b>	145	298	101	4,236	9,984	3,436	34.3	29.8	29.4
<b>Building floorspace (square feet)</b>									
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
<b>Principal building activity</b>									
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
<b>Year constructed</b>									
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
<b>All buildings</b>	145	298	101	4,236	9,984	3,436	34.3	29.8	29.4
<b>Provider of direct input on energy-related equipment purchases</b>									
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
<b>Number of establishments</b>									
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
<b>Predominant exterior wall material</b>									
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
<b>Predominant roof material</b>									
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
<b>Roof characteristics</b>									
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
<b>All buildings</b>	145	298	101	4,236	9,984	3,436	34.3	29.8	29.4
<b>Cooling equipment (more than one may apply)</b>									
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
<b>Main equipment replaced since 1990 (more than one may apply)</b>									
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
<b>Water-heating equipment</b>									
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
<b>Food preparation or serving areas in non-food service buildings (more than one may apply)</b>									
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
<b>HVAC conservation features (more than one may apply)</b>									
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) <sup>2</sup>	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
<b>All buildings</b>	145	298	101	4,236	9,984	3,436	34.3	29.8	29.4
<b>Window and interior lighting features (more than one may apply)</b>									
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 <sup>2</sup>	22	43	8	570	1,767	323	38.7	24.3	26.1
<b>Equipment usage reduced when building not in full use (more than one may apply)</b>									
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
<b>Annual consumption (hundred cubic feet)</b>									
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

<sup>1</sup>These 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).

<sup>2</sup>In 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.