

**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
<b>All buildings</b>	108	379	482	2,241	8,827	10,790	48.1	43.0	44.6
<b>Building floorspace (square feet)</b>									
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
<b>Principal building activity</b>									
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
<b>Year constructed</b>									
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
<b>All buildings</b>	108	379	482	2,241	8,827	10,790	48.1	43.0	44.6
<b>Provider of direct input on energy-related equipment purchases</b>									
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
<b>Number of establishments</b>									
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
<b>Predominant exterior wall material</b>									
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
<b>Predominant roof material</b>									
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
<b>Roof characteristics</b>									
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
<b>All buildings</b>	108	379	482	2,241	8,827	10,790	48.1	43.0	44.6
<b>Cooling equipment (more than one may apply)</b>									
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
<b>Main equipment replaced since 1990 (more than one may apply)</b>									
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
<b>Water-heating equipment</b>									
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
<b>Food preparation or serving areas in non-food service buildings (more than one may apply)</b>									
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
<b>HVAC conservation features (more than one may apply)</b>									
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) <sup>2</sup>	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
<b>All buildings</b>	108	379	482	2,241	8,827	10,790	48.1	43.0	44.6
<b>Window and interior lighting features (more than one may apply)</b>									
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 <sup>2</sup>	24	66	64	409	1,415	1,555	57.6	47.0	41.3
<b>Equipment usage reduced when building not in full use (more than one may apply)</b>									
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
<b>Annual consumption (hundred cubic feet)</b>									
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

<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.