

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

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	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

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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

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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

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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

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	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.