

Table C29. Natural Gas Consumption and Conditional Energy Intensity by Census Division for Non-Mall Buildings, 2003: Part 3

	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*	151	162	149	4,704	2,797	5,016	32.2	57.9	29.7
Building Floorspace (Square Feet)									
1,001 to 5,000	29	18	Q	334	265	363	87.9	68.4	60.2
5,001 to 10,000	23	Q	Q	519	Q	496	44.2	Q	53.4
10,001 to 25,000	14	38	22	514	630	748	28.1	61.1	29.0
25,001 to 50,000	17	23	21	512	464	733	33.5	49.1	28.7
50,001 to 100,000	18	Q	18	888	Q	730	20.5	Q	24.2
100,001 to 200,000	16	Q	12	760	Q	651	21.5	Q	17.8
200,001 to 500,000	Q	Q	14	470	Q	675	Q	Q	20.8
Over 500,000	Q	Q	Q	Q	Q	Q	Q	Q	Q
Principal Building Activity									
Education	16	21	28	797	420	802	20.6	48.8	34.8
Food Sales	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food Service	37	Q	Q	211	Q	Q	175.7	Q	Q
Health Care	26	19	19	282	162	274	91.4	115.5	68.7
Inpatient	23	Q	Q	235	Q	Q	96.0	Q	Q
Outpatient	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging	Q	Q	16	Q	Q	515	Q	Q	31.5
Retail (Other Than Mall).....	7	Q	5	436	Q	455	16.2	Q	11.4
Office	12	19	17	Q	379	1,165	15.2	50.0	14.2
Public Assembly	Q	Q	Q	Q	Q	Q	Q	Q	Q
Public Order and Safety	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship	Q	Q	Q	336	Q	Q	19.4	Q	Q
Service	Q	Q	Q	Q	Q	Q	Q	Q	Q
Warehouse and Storage	Q	Q	Q	614	Q	Q	11.3	Q	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	Q	Q	Q	Q	Q	Q	Q	Q	Q
1920 to 1945	8	Q	12	271	Q	580	29.9	Q	21.5
1946 to 1959	14	Q	15	358	Q	478	37.7	Q	32.2
1960 to 1969	14	27	18	567	441	672	25.4	62.2	27.0
1970 to 1979	30	49	25	991	712	782	29.8	68.8	31.7
1980 to 1989	30	38	37	1,119	525	1,067	26.4	72.8	34.8
1990 to 1999	38	18	28	848	487	908	45.4	36.8	31.0
2000 to 2003	Q	Q	8	433	Q	415	27.9	Q	19.9
Climate Zone: 30-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	N	104	Q	N	1,722	Q	N	60.4	46.8
5,500-7,000 HDD	N	53	13	N	829	383	N	63.5	33.7
4,000-5,499 HDD	Q	N	14	Q	N	443	Q	N	30.8
Fewer than 4,000 HDD	72	N	99	1,777	N	3,761	40.3	N	26.2
2,000 CDD or More and --									
Fewer than 4,000 HDD	71	Q	Q	2,748	Q	Q	26.0	Q	Q
Number of Floors									
One	78	70	71	2,284	1,301	1,811	34.3	54.1	39.3
Two	18	44	35	771	836	1,367	23.7	52.9	25.3
Three	Q	Q	10	Q	Q	564	Q	Q	17.7
Four to Nine	26	Q	25	550	318	701	47.2	53.4	35.9
Ten or More	Q	Q	Q	Q	Q	Q	Q	Q	Q

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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)		
	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific
All Buildings*	151	162	149	4,704	2,797	5,016	32.2	57.9	29.7
Number of Workers (main shift)									
Fewer than 5	15	22	17	762	462	787	19.6	47.2	22.2
5 to 9	21	15	21	456	294	401	45.7	49.4	51.9
10 to 19	31	22	13	598	334	424	51.8	65.7	29.9
20 to 49	30	26	37	884	445	910	33.8	58.3	40.9
50 to 99	15	23	15	657	500	577	22.5	46.9	26.4
100 to 249	Q	Q	17	Q	Q	786	Q	Q	21.1
250 or More	33	Q	29	Q	519	1,131	31.4	83.9	25.5
Weekly Operating Hours									
Fewer than 40	5	Q	Q	277	Q	427	19.5	Q	31.1
40 to 48	12	27	13	864	421	777	14.0	64.9	16.7
49 to 60	29	26	24	1,287	615	1,067	22.6	42.6	22.2
61 to 84	27	20	30	710	422	1,003	38.3	48.3	29.6
85 to 167	26	Q	21	520	Q	721	50.3	Q	28.5
Open Continuously	51	66	49	1,046	866	1,020	49.0	75.8	47.7
Ownership and Occupancy									
Nongovernment Owned	125	119	111	3,692	2,073	3,916	33.8	57.6	28.3
Owner Occupied	44	41	45	1,859	828	1,719	23.9	49.9	26.3
Nonowner Occupied	80	78	65	1,789	1,238	2,114	44.7	63.0	30.6
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	27	43	38	1,011	724	1,101	26.2	58.8	34.5
Federal	Q	Q	Q	Q	Q	Q	Q	Q	Q
State	Q	Q	Q	Q	Q	343	Q	Q	53.0
Local	12	29	17	578	457	678	20.6	63.3	24.8
Vacancy Status									
Completely Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	N	Q	Q	N	Q	Q	N	Q	Q
Partially Vacant	23	31	19	1,051	507	933	22.0	60.4	19.9
Not At All Vacant	128	131	128	3,603	2,266	3,955	35.4	57.7	32.4
Number of Establishments									
One	110	141	117	3,306	2,214	3,299	33.4	63.5	35.5
2 to 5	26	17	23	656	436	915	38.9	38.8	25.0
6 to 10	Q	Q	Q	Q	Q	Q	Q	Q	Q
11 to 20	Q	Q	Q	Q	Q	Q	Q	Q	Q
More than 20	Q	Q	Q	Q	Q	Q	Q	Q	Q
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant Exterior Wall Material									
Brick, Stone or Stucco	93	63	84	2,583	1,094	2,358	35.9	57.4	35.6
Concrete (Block or Poured)	20	19	29	574	322	816	34.8	57.8	35.2
Concrete Panels	10	Q	15	636	Q	892	15.2	70.9	16.9
Siding or Shingles	Q	Q	Q	Q	Q	Q	Q	Q	Q
Metal Panels	15	Q	9	529	504	482	27.5	51.1	17.8
Window Glass	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

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	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific
All Buildings*	151	162	149	4,704	2,797	5,016	32.2	57.9	29.7
Predominant Roof Material									
Built-Up	57	76	61	1,738	1,048	2,203	32.7	72.1	27.9
Shingles (Not Wood)	18	22	26	471	377	616	37.3	58.5	41.5
Metal Surfacing	24	32	13	1,007	730	397	23.5	43.6	33.5
Synthetic or Rubber	42	28	25	1,016	498	974	41.5	55.5	25.3
Slate or Tile	Q	Q	15	Q	Q	406	Q	Q	35.8
Wooden Materials	Q	Q	Q	Q	Q	Q	Q	Q	Q
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
Renovations in Buildings Constructed Before 1980 (more than one may apply)									
Any Type of Renovation									
Since 1980	35	53	38	917	874	1,328	38.0	60.3	28.4
Addition or Annex	21	35	16	416	532	351	49.4	66.0	44.8
Reduction In Floorspace	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cosmetic Improvements	25	38	32	689	598	1,174	36.6	63.8	27.3
Wall or Roof Replacement	13	28	18	448	452	661	28.2	62.0	27.6
Interior Wall									
Re-Configuration	17	35	21	483	565	684	36.1	62.7	30.4
HVAC Equipment Upgrade	19	38	25	472	658	843	39.8	57.3	29.9
Lighting Upgrade	15	34	26	384	592	873	38.9	56.8	29.5
Window Replacement	Q	Q	14	Q	Q	380	Q	Q	35.9
Plumbing System Upgrade	Q	25	19	Q	486	766	Q	52.3	24.9
Insulation Upgrade	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Renovation	N	Q	Q	N	Q	Q	N	Q	Q
No Renovations Since 1980	36	46	38	1,387	672	1,299	26.2	68.2	28.9
Building Newer than 1980	80	63	74	2,400	1,251	2,390	33.4	50.7	30.8
Energy Sources (more than one may apply)									
Electricity	151	162	149	4,698	2,797	5,016	32.2	57.9	29.7
Natural Gas	151	162	149	4,704	2,797	5,016	32.2	57.9	29.7
Fuel Oil	34	Q	37	Q	448	1,136	34.6	89.3	32.1
District Heat	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	Q	Q	Q	Q	Q	Q	Q	Q	Q
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Space-Heating Energy Sources									
Natural Gas	133	157	122	3,731	2,547	4,301	35.7	61.6	28.4
Natural Gas Main	127	148	113	3,308	2,277	3,633	38.2	65.1	31.2
Natural Gas Secondary	Q	Q	9	Q	Q	668	Q	Q	13.1
Other Excluding Natural Gas	17	Q	15	869	Q	533	19.8	Q	28.9
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q
Primary Space-Heating Energy Source									
Electricity	23	11	22	1,160	334	1,015	19.5	31.9	21.9
Natural Gas	127	148	113	3,308	2,277	3,633	38.2	65.1	31.2
Fuel Oil	N	Q	N	N	Q	N	N	Q	N
District Heat	Q	Q	Q	Q	Q	Q	Q	Q	Q
Propane	N	N	N	N	N	N	N	N	N
Other	N	N	Q	N	N	Q	N	N	Q

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	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific
All Buildings*	151	162	149	4,704	2,797	5,016	32.2	57.9	29.7
Cooling Energy Sources									
Natural Gas	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Natural Gas	148	154	128	4,587	2,634	4,355	32.2	58.4	29.3
Buildings without Cooling	Q	Q	14	Q	Q	408	Q	Q	35.0
Water-Heating Energy Sources									
Natural Gas	126	143	127	3,201	2,276	3,838	39.3	62.9	33.1
Other Excluding Natural Gas	18	Q	18	1,117	381	831	16.3	40.3	21.2
Bldgs without Water Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooking Energy Sources									
Natural Gas	82	58	77	1,953	796	1,616	41.9	73.4	47.3
Other Excluding Natural Gas	14	Q	Q	394	Q	Q	35.1	Q	Q
Buildings without Cooking	56	94	66	2,357	1,815	3,113	23.6	52.0	21.2
Energy End Uses (more than one may apply)									
Buildings with Space Heating	151	161	138	4,600	2,726	4,835	32.7	58.9	28.4
Buildings with Cooling	150	156	135	4,608	2,649	4,608	32.4	58.9	29.2
Buildings with Water Heating	144	159	145	4,318	2,656	4,669	33.3	59.7	31.0
Buildings with Cooking	96	68	83	2,346	982	1,904	40.7	68.8	43.4
Buildings with Manufacturing	Q	Q	Q	Q	Q	Q	Q	Q	Q
Buildings with Electricity Generation	36	44	39	1,154	583	1,237	31.6	75.3	31.8
Percent of Floorspace Heated									
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	Q	Q	10	499	Q	851	Q	Q	11.8
51 to 99	24	25	30	433	483	1,090	56.0	52.8	27.6
100	123	127	97	3,667	2,054	2,894	33.5	62.0	33.7
Percent of Floorspace Cooled									
Not Cooled	Q	Q	14	Q	Q	408	Q	Q	35.0
1 to 50	24	45	18	1,064	873	1,059	22.8	52.0	16.6
51 to 99	28	31	32	439	682	1,072	63.3	46.0	29.9
100	97	79	85	3,106	1,095	2,478	31.4	72.5	34.3
Heating Equipment (more than one may apply)									
Heat Pumps	Q	Q	18	Q	Q	849	Q	Q	20.8
Packaged Heat Pumps	Q	Q	7	Q	Q	426	Q	Q	17.2
Split-System Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q
Individual Room Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q
Furnaces	58	51	44	1,469	1,045	1,337	39.6	49.0	32.8
Individual Space Heaters	17	29	32	506	595	920	33.9	49.1	34.5
District Heat	Q	Q	Q	Q	Q	Q	Q	Q	Q
Boilers	56	95	71	1,380	1,216	2,146	40.5	78.5	33.3
Packaged Heating Units	63	33	41	2,012	640	1,911	31.5	52.2	21.2
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q

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All Buildings*	151	162	149	4,704	2,797	5,016	32.2	57.9	29.7
Cooling Equipment (more than one may apply)									
Residential-Type Central									
Air Conditioners	25	17	19	764	304	538	32.7	55.9	35.7
Heat Pumps	Q	Q	17	Q	Q	914	Q	Q	18.8
Packaged Heat Pumps	Q	Q	6	Q	Q	404	Q	Q	15.9
Split-System Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q
Individual Room Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q
Individual Air Conditioners	12	34	14	536	607	678	22.7	56.0	21.3
District Chilled Water	Q	Q	Q	Q	Q	Q	Q	Q	Q
Central Chillers	51	43	33	1,485	484	1,162	34.5	88.8	28.8
Packaged Air Conditioning									
Units	81	79	81	2,306	1,501	2,753	35.1	52.9	29.4
Swamp Coolers	Q	45	22	Q	763	315	Q	59.7	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Main Equipment Replaced Since 1990 (more than one may apply)									
Heating	37	59	38	1,193	901	1,111	30.7	65.8	34.6
Cooling	52	73	52	1,649	1,089	1,567	31.6	66.9	33.5
Water Heating Equipment									
Centralized System	101	90	102	2,798	1,557	2,527	36.1	57.9	40.2
Distributed System	26	13	18	1,023	322	1,030	25.6	41.5	17.5
Combination of Centralized and Distributed System	17	55	25	497	777	1,112	33.9	70.8	22.7
Energy-Related Space Functions (more than one may apply)									
Commercial Food Preparation	96	68	82	2,346	982	1,892	40.7	68.8	43.3
Activities with Large Amounts of Hot Water	77	80	91	1,575	1,126	1,678	48.7	71.1	54.3
Separate Computer Area	65	77	59	2,253	1,296	2,543	29.0	59.5	23.2
HVAC Conservation Features (more than one may apply)									
Variable Air-Volume System	67	54	60	1,917	978	1,678	34.7	55.6	35.6
Economizer Cycle	56	73	66	1,404	1,164	2,456	39.9	63.0	27.0
HVAC Maintenance	131	138	138	3,866	2,404	4,522	33.9	57.5	30.6
Energy Management and Control System (EMCS)	39	44	37	1,448	680	1,657	26.8	64.0	22.3
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a									
Heating	100	117	89	3,227	1,933	3,824	31.1	60.5	23.3
Cooling	109	120	100	3,468	2,070	3,849	31.4	58.1	25.9
Lighting	97	95	95	3,440	1,864	3,817	28.2	51.0	25.0
Office Equipment	28	40	38	1,180	721	1,538	23.8	55.1	24.7

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	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific	West South Central	Mountain	Pacific
All Buildings*	151	162	149	4,704	2,797	5,016	32.2	57.9	29.7
Annual Consumption (hundred cubic feet)									
1,000 or Less	4	Q	7	746	Q	925	5.5	Q	7.1
1,001 to 5,000	20	19	19	1,121	591	1,317	17.7	32.3	14.6
5,001 to 10,000	24	22	16	889	387	618	27.2	56.5	25.2
10,001 to 25,000	27	Q	38	625	Q	977	42.6	70.9	39.1
25,001 to 50,000	31	23	29	511	431	339	60.4	54.5	85.1
50,001 to 100,000	Q	Q	Q	Q	Q	Q	Q	Q	Q
Over 100,000	32	48	27	466	461	Q	68.8	104.4	57.9
Provider of Natural Gas (more than one may apply)									
Local Utility	129	138	135	4,132	2,399	4,641	31.1	57.6	29.1
Some Other Provider	Q	32	18	Q	487	366	Q	66.4	48.9

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet. In the 1999 CBECS, malls represented 3.8 percent of total natural gas consumption.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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

N=No responding cases in sample that use natural gas.

Notes: ● 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. ● Due to rounding, data may not sum to totals. Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A, C, and E of the 2003 Commercial Buildings Energy Consumption Survey.