

**Table C30. Natural Gas Consumption and Conditional Energy Intensity by Climate Zone<sup>a</sup> for Non-Mall Buildings, 2003**

	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)				
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<b>All Buildings*</b> .....	418	659	327	347	119	7,645	12,850	8,113	10,509	4,350	54.7	51.3	40.3	33.0	27.3
<b>Building Floorspace (Square Feet)</b>															
1,001 to 5,000 .....	56	81	35	55	16	660	979	421	789	234	85.0	82.9	82.5	69.8	66.6
5,001 to 10,000 .....	47	53	27	59	16	644	944	526	1,212	367	72.5	56.5	51.2	49.0	43.9
10,001 to 25,000 .....	88	103	50	47	13	1,679	2,134	958	1,781	501	52.4	48.0	51.7	26.4	25.9
25,001 to 50,000 .....	59	87	52	34	18	1,251	1,839	1,031	1,441	463	47.2	47.2	50.4	23.7	38.6
50,001 to 100,000 .....	55	88	42	41	11	1,043	2,129	1,300	1,569	642	52.4	41.5	32.3	26.0	16.5
100,001 to 200,000 .....	35	114	31	Q	9	970	2,090	1,320	1,550	714	36.2	54.5	23.4	34.0	12.4
200,001 to 500,000 .....	54	61	38	31	15	1,001	1,471	1,380	1,161	666	53.6	41.7	27.3	26.8	22.5
Over 500,000 .....	Q	71	53	27	Q	Q	1,263	1,176	1,005	Q	Q	56.5	44.9	26.8	Q
<b>Principal Building Activity</b>															
Education .....	65	113	26	48	9	1,227	2,281	968	1,700	869	53.0	49.4	26.4	28.2	10.1
Food Sales .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food Service .....	27	49	Q	64	31	174	368	Q	393	277	154.3	134.4	Q	161.9	110.9
Health Care .....	38	69	36	64	29	383	665	454	720	323	98.4	103.5	78.3	89.5	89.4
Inpatient .....	27	56	30	59	26	237	414	302	589	264	114.1	136.3	99.9	99.4	98.8
Outpatient .....	Q	12	Q	Q	Q	Q	251	Q	Q	Q	Q	49.4	Q	Q	Q
Lodging .....	34	86	36	34	18	609	1,183	958	967	538	55.5	72.8	Q	35.3	32.8
Retail (Other Than Mall).....	27	27	16	16	Q	593	595	451	931	Q	46.1	45.8	36.1	17.0	Q
Office .....	60	106	60	22	14	1,252	2,575	1,977	1,539	865	48.0	41.0	30.1	14.4	16.1
Public Assembly .....	32	30	Q	25	Q	639	537	Q	700	Q	49.7	55.0	Q	35.4	Q
Public Order and Safety .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship .....	14	38	14	13	Q	277	973	412	774	Q	49.2	38.9	32.8	16.5	Q
Service .....	49	37	18	23	Q	697	717	422	511	Q	70.9	52.1	Q	44.8	Q
Warehouse and Storage .....	33	44	33	16	Q	963	1,672	1,071	1,463	Q	34.5	26.4	30.7	11.2	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>															
Before 1920 .....	55	46	25	Q	Q	832	1,042	599	Q	Q	66.4	43.7	41.9	Q	Q
1920 to 1945 .....	49	70	77	17	Q	762	1,296	1,563	821	Q	64.8	54.1	49.0	21.3	Q
1946 to 1959 .....	37	97	29	Q	Q	642	1,831	1,000	945	Q	57.5	52.8	29.0	44.8	Q
1960 to 1969 .....	61	94	36	39	19	1,005	1,759	1,061	1,246	563	60.2	53.2	33.7	31.2	33.3
1970 to 1979 .....	95	125	43	59	19	1,732	2,291	1,199	1,697	739	54.8	54.4	35.6	34.9	26.3
1980 to 1989 .....	42	109	43	70	19	688	1,831	946	2,111	893	60.7	59.3	45.7	33.0	21.5
1990 to 1999 .....	61	82	45	86	31	1,460	1,887	1,053	2,704	1,073	41.4	43.5	43.1	31.8	28.6
2000 to 2003 .....	19	38	Q	24	13	524	913	693	785	517	36.5	41.1	41.6	30.6	25.6
<b>Census Region and Division</b>															
Northeast .....	Q	188	165	N	N	Q	3,692	4,328	N	N	53.3	51.0	38.1	N	N
New England .....	N	73	N	N	N	N	1,465	N	N	N	N	49.5	N	N	N
Middle Atlantic .....	Q	116	165	N	N	Q	2,227	4,328	N	N	53.3	52.0	38.1	N	N
Midwest .....	235	405	44	N	N	4382.0	7,947	834	N	N	53.6	51.0	52.3	N	N
East North Central .....	151	361	N	N	N	2660.0	6,909	N	N	N	56.7	52.3	N	N	N
West North Central .....	84	43	44	N	N	1722.0	Q	834	N	N	48.8	Q	52.3	N	N
South .....	N	N	104	249	107	N	N	2,508	6,748	4,054	N	N	41.5	36.8	26.5
South Atlantic .....	N	N	58	131	Q	N	N	1,705	3,643	Q	N	N	33.9	35.9	22.1
East South Central .....	N	N	Q	Q	Q	N	N	Q	Q	Q	N	N	Q	34.9	43.7
West South Central .....	N	N	Q	72	71	N	N	Q	1,777	2,748	N	N	Q	40.3	26.0
West .....	122	66	14	99	11	2102.0	1,211	443	3,761	296	57.9	54.1	30.8	26.2	37.9
Mountain .....	104	53	N	N	Q	1722.0	829	N	N	Q	60.4	63.5	N	N	Q
Pacific .....	Q	13	14	99	Q	Q	383	443	3,761	Q	46.8	33.7	30.8	26.2	117.3

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**Table C30. Natural Gas Consumption and Conditional Energy Intensity by Climate Zone<sup>a</sup> for Non-Mall Buildings, 2003**

	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)				
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<b>All Buildings*</b> .....	418	659	327	347	119	7,645	12,850	8,113	10,509	4,350	54.7	51.3	40.3	33.0	27.3
<b>Number of Floors</b>															
One .....	140	213	81	161	49	2,572	3,898	1,862	4,894	1,715	54.3	54.7	43.4	32.9	28.7
Two .....	131	164	89	75	18	2,461	3,745	1,964	2,436	835	53.2	43.8	45.1	30.7	21.6
Three .....	60	96	35	Q	Q	1,140	2,239	996	1,060	Q	52.5	42.9	34.8	34.7	Q
Four to Nine .....	74	133	74	60	27	1,270	2,171	2,103	1,392	735	58.1	61.1	35.0	43.4	36.3
Ten or More .....	Q	53	49	14	Q	Q	798	1,188	727	Q	Q	66.6	41.3	19.3	Q
<b>Number of Workers (main shift)</b>															
Fewer than 5 .....	65	108	35	49	7	1,279	2,639	807	1,797	501	50.9	41.0	43.0	27.1	14.7
5 to 9 .....	41	63	30	46	12	796	1,164	616	1,166	341	51.5	54.6	48.2	39.4	35.0
10 to 19 .....	62	81	31	37	23	997	1,575	1,055	1,196	494	62.1	51.4	29.8	31.3	46.6
20 to 49 .....	100	112	80	71	19	1,748	2,227	1,742	1,894	601	57.3	50.3	46.1	37.6	31.9
50 to 99 .....	60	93	33	38	10	1,338	1,838	1,036	1,363	580	45.0	50.6	31.9	27.7	16.8
100 to 249 .....	44	83	37	54	10	872	1,409	1,071	1,418	357	50.4	58.8	34.5	38.3	26.6
250 or More .....	46	118	80	52	38	614	1,998	1,786	1,675	1,475	74.7	59.1	45.0	30.8	25.7
<b>Weekly Operating Hours</b>															
Fewer than 40 .....	22	50	Q	Q	Q	477	1,536	Q	746	Q	46.8	32.6	Q	30.2	Q
40 to 48 .....	53	105	35	38	Q	1,049	1,988	1,296	1,901	680	50.7	52.7	26.9	19.8	16.6
49 to 60 .....	107	116	70	57	12	2,297	3,050	1,525	2,372	948	46.8	38.1	45.8	24.2	12.9
61 to 84 .....	71	108	53	58	14	1,182	2,237	1,450	2,020	579	59.8	48.5	36.6	28.9	24.6
85 to 167 .....	68	74	43	50	13	1,127	1,348	1,060	1,107	582	60.5	55.0	40.6	45.5	22.9
Open Continuously .....	97	205	119	121	65	1,514	2,691	2,548	2,364	1,294	63.9	76.2	46.8	51.1	50.1
<b>Ownership and Occupancy</b>															
Nongovernment Owned .....	325	485	279	274	95	5,871	9,578	6,537	8,201	3,131	55.3	50.6	42.7	33.4	30.4
Owner Occupied .....	142	248	147	118	31	2,758	4,941	3,647	3,859	1,343	51.6	50.1	40.3	30.5	23.4
Nonowner Occupied .....	180	226	131	155	64	3,003	4,009	2,859	4,260	1,755	60.0	56.3	45.7	36.4	36.3
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	94	174	48	74	23	1,774	3,273	1,576	2,308	1,219	52.8	53.1	30.2	31.8	19.2
Federal .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	15.8	Q	Q
State .....	13	28	13	34	Q	375	447	414	878	Q	34.9	62.8	31.7	38.5	Q
Local .....	78	125	30	36	15	1,331	2,281	872	1,289	856	58.2	54.7	34.3	27.6	17.2
<b>Vacancy Status</b>															
Completely Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	38.2	Q	5.2
Partially Vacant .....	88	108	59	33	21	1,640	2,503	1,679	1,515	1,110	53.4	43.0	35.2	21.8	18.9
Not At All Vacant .....	323	539	262	313	98	5,798	9,691	6,297	8,868	3,192	55.7	55.6	41.6	35.3	30.6
<b>Number of Establishments</b>															
One .....	300	501	247	289	80	5,184	9,094	5,555	7,980	2,706	58.0	55.1	44.4	36.2	29.7
2 to 5 .....	96	104	36	37	24	1,838	2,164	1,402	1,528	661	52.3	48.2	25.5	24.2	37.0
6 to 10 .....	14	20	Q	Q	Q	360	393	Q	Q	Q	39.0	50.8	Q	Q	Q
11 to 20 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
More than 20 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

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**Table C30. Natural Gas Consumption and Conditional Energy Intensity by Climate Zone<sup>a</sup> for Non-Mall Buildings, 2003**

	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)				
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<b>All Buildings*</b> .....	418	659	327	347	119	7,645	12,850	8,113	10,509	4,350	54.7	51.3	40.3	33.0	27.3
<b>Predominant Exterior Wall Material</b>															
Brick, Stone or Stucco .....	211	419	199	197	68	3,414	7,509	4,772	5,721	2,134	61.7	55.7	41.7	34.4	31.9
Concrete (Block or Poured) .....	99	92	63	67	19	1,712	1,918	1,231	1,695	767	57.7	48.1	51.3	39.4	24.7
Concrete Panels .....	43	70	28	21	13	788	1,144	969	938	840	54.7	61.3	28.9	22.0	15.0
Siding or Shingles .....	17	33	Q	Q	Q	501	833	Q	Q	Q	34.6	39.1	Q	Q	Q
Metal Panels .....	41	24	19	35	Q	1,017	774	592	1,424	Q	40.4	31.1	32.0	24.4	Q
Window Glass .....	Q	Q	Q	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	Q	Q	Q
No One Major Type .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	28.3	Q
<b>Predominant Roof Material</b>															
Built-Up .....	156	240	138	143	43	2,588	4,234	2,924	3,909	1,554	60.3	56.7	47.3	36.6	27.7
Shingles (Not Wood) .....	67	111	51	61	11	1,115	2,379	983	1,594	448	59.7	46.8	51.7	38.3	24.5
Metal Surfacing .....	61	44	21	50	Q	1,500	1,111	656	1,913	601	40.9	39.4	32.3	25.9	20.7
Synthetic or Rubber .....	112	221	90	61	42	1,998	4,257	2,281	2,049	1,254	56.1	51.9	39.4	29.6	33.6
Slate or Tile .....	Q	20	Q	24	Q	Q	370	Q	627	Q	Q	54.9	Q	37.6	Q
Wooden Materials .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Concrete .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	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	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Renovations in Buildings Constructed Before 1980 (more than one may apply)</b>															
Any Type of Renovation															
Since 1980 .....	168	254	116	94	33	2,731	4,313	2,969	2,478	780	61.4	58.8	39.0	37.7	41.8
Addition or Annex .....	88	102	40	47	18	1,351	1,594	987	756	348	65.2	64.0	Q	62.2	52.7
Reduction In Floorspace .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cosmetic Improvements .....	140	171	84	61	25	2,172	2,912	2,428	1,918	642	64.7	58.8	34.7	31.6	39.6
Wall or Roof Replacement .....	81	96	47	29	17	1,327	1,835	1,727	1,046	393	61.2	52.3	27.0	27.6	43.5
Interior Wall															
Re-Configuration .....	98	122	57	38	17	1,605	1,958	1,881	1,162	413	61.0	62.2	30.2	33.0	40.1
HVAC Equipment Upgrade .....	123	154	88	68	20	1,956	2,537	1,996	1,488	506	62.7	60.7	44.0	46.0	39.6
Lighting Upgrade .....	121	138	66	45	Q	1,971	2,467	1,890	1,391	385	61.3	55.9	35.1	32.3	40.1
Window Replacement .....	70	102	41	19	Q	1,118	1,732	1,523	495	Q	62.5	58.9	26.7	38.4	Q
Plumbing System Upgrade .....	83	96	52	35	Q	1,272	1,545	1,588	1,051	Q	65.5	62.1	32.5	33.5	Q
Insulation Upgrade .....	38	38	28	20	Q	696	836	773	484	Q	55.1	45.2	36.1	41.0	Q
Other Renovation .....	Q	Q	Q	Q	N	Q	Q	Q	Q	N	Q	Q	Q	Q	N
No Renovations Since 1980 .....	129	177	94	74	23	2,243	3,905	2,453	2,432	1,087	57.6	45.3	38.1	30.5	21.1
Building Newer than 1980 .....	121	228	117	179	63	2,671	4,632	2,692	5,600	2,483	45.4	49.3	43.6	32.0	25.4
<b>Energy Sources (more than one may apply)</b>															
Electricity .....	418	659	327	347	119	7,644	12,850	8,113	10,509	4,345	54.7	51.3	40.3	33.0	27.3
Natural Gas .....	418	659	327	347	119	7,645	12,850	8,113	10,509	4,350	54.7	51.3	40.3	33.0	27.3
Fuel Oil .....	81	159	125	92	34	1,255	2,450	3,550	1,907	1,221	64.7	64.9	35.3	48.1	28.1
District Heat .....	Q	Q	Q	Q	Q	347	789	593	Q	Q	Q	22.1	Q	Q	Q
District Chilled Water .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Propane .....	Q	37	Q	Q	Q	Q	789	Q	Q	Q	Q	46.7	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q	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)				
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<b>All Buildings*</b> .....	418	659	327	347	119	7,645	12,850	8,113	10,509	4,350	54.7	51.3	40.3	33.0	27.3
<b>Space-Heating Energy Sources</b>															
Natural Gas .....	407	637	302	316	88	7,142	11,538	6,236	9,362	2,679	56.9	55.2	48.4	33.7	32.8
Natural Gas Main .....	381	603	286	288	78	6,515	10,640	5,617	7,965	2,233	58.5	56.7	50.9	36.2	35.0
Natural Gas Secondary .....	26	33	16	28	10	627	898	620	1,397	446	41.2	37.2	26.5	19.7	21.7
Other Excluding Natural Gas .....	Q	21	22	20	30	498	1,267	Q	925	1,452	21.3	16.2	Q	21.2	20.5
Buildings without Heating .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	483.0	Q	Q
<b>Primary Space-Heating Energy Source</b>															
Electricity .....	31	41	25	38	36	700	1,206	759	1,933	1,564	44.5	34.2	32.7	19.7	22.9
Natural Gas .....	381	603	286	288	78	6,515	10,640	5,617	7,965	2,233	58.5	56.7	50.9	36.2	35.0
Fuel Oil .....	Q	Q	Q	Q	N	Q	Q	Q	Q	N	Q	Q	Q	Q	N
District Heat .....	3	Q	Q	Q	Q	331	Q	482	Q	Q	8.2	Q	5.6	Q	Q
Propane .....	N	N	N	Q	N	N	N	N	Q	N	N	N	N	Q	N
Other .....	Q	Q	Q	Q	N	Q	Q	Q	Q	N	Q	Q	Q	Q	N
<b>Cooling Energy Sources</b>															
Natural Gas .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Natural Gas .....	383	577	282	319	115	6,959	11,282	7,651	9,806	4,307	55.0	51.2	36.9	32.5	26.8
Buildings without Cooling .....	27	47	Q	15	Q	587	1,213	Q	469	Q	46.3	38.8	Q	32.4	Q
<b>Water-Heating Energy Sources</b>															
Natural Gas .....	335	497	253	278	101	5,482	8,466	4,892	7,068	2,913	61.2	58.7	51.6	39.3	34.7
Other Excluding Natural Gas .....	76	136	68	56	15	1,792	3,649	2,994	2,689	1,189	42.5	37.2	22.8	20.6	12.5
Bldgs without Water Heating .....	Q	26	Q	14	Q	Q	735	Q	752	Q	Q	35.8	Q	18.2	Q
<b>Cooking Energy Sources</b>															
Natural Gas .....	152	262	153	189	75	2,217	4,071	3,464	3,518	2,167	68.4	64.3	44.2	53.6	34.8
Other Excluding Natural Gas .....	29	71	15	10	Q	511	1,343	559	396	410	57.6	52.8	26.3	25.9	27.5
Buildings without Cooking .....	237	326	159	148	32	4,917	7,437	4,091	6,594	1,773	48.3	43.9	38.8	22.5	18.0
<b>Energy End Uses (more than one may apply)</b>															
Buildings with Space Heating .....	417	657	324	336	118	7,640	12,805	8,109	10,288	4,132	54.6	51.3	40.0	32.6	28.4
Buildings with Cooling .....	391	612	312	332	119	7,058	11,637	7,942	10,040	4,345	55.4	52.6	39.3	33.1	27.3
Buildings with Water Heating .....	411	632	321	333	116	7,274	12,115	7,886	9,757	4,102	56.6	52.2	40.7	34.2	28.2
Buildings with Cooking .....	181	332	168	199	87	2,728	5,413	4,023	3,915	2,577	66.4	61.4	41.7	50.8	33.7
Buildings with Manufacturing .....	25	19	37	16	Q	522	480	692	522	Q	47.3	38.8	53.9	31.3	Q
Buildings with Electricity Generation .....	85	198	102	102	32	1,418	3,236	2,236	2,260	1,252	60.1	61.1	45.4	45.1	25.3
<b>Percent of Floorspace Heated</b>															
Not Heated .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	483.0	Q	Q
1 to 50 .....	20	22	27	22	3	597	770	946	1,242	451	32.8	28.7	28.9	18.1	6.2
51 to 99 .....	66	62	52	57	22	1,082	1,350	1,132	1,879	522	61.3	46.2	45.8	30.3	42.9
100 .....	331	573	245	256	92	5,961	10,685	6,030	7,167	3,159	55.6	53.6	40.7	35.7	29.2
<b>Percent of Floorspace Cooled</b>															
Not Cooled .....	27	47	Q	15	Q	587	1,213	Q	469	Q	46.3	38.8	Q	32.4	Q
1 to 50 .....	129	159	86	53	Q	2,420	3,668	2,787	2,595	661	53.3	43.4	30.9	20.3	16.9
51 to 99 .....	110	155	81	70	21	1,984	2,806	2,197	2,050	694	55.2	55.4	36.9	34.4	30.3
100 .....	153	297	145	209	86	2,654	5,162	2,958	5,395	2,990	57.6	57.5	49.1	38.7	28.9

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**Table C30. Natural Gas Consumption and Conditional Energy Intensity by Climate Zone<sup>a</sup> for Non-Mall Buildings, 2003**

	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)				
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<b>All Buildings*</b> .....	418	659	327	347	119	7,645	12,850	8,113	10,509	4,350	54.7	51.3	40.3	33.0	27.3
<b>Heating Equipment (more than one may apply)</b>															
Heat Pumps .....	30	63	42	62	20	540	951	1,274	2,090	698	56.3	65.8	32.8	29.8	28.9
Packaged Heat Pumps .....	Q	Q	25	Q	13	Q	655	778	1,093	505	Q	66.1	32.1	Q	26.6
Split-System Heat Pumps .....	Q	Q	Q	17	Q	Q	Q	Q	640	Q	Q	Q	Q	27.3	Q
Individual Room Heat Pumps .....	Q	Q	15	17	Q	Q	Q	449	762	Q	Q	Q	32.8	22.3	Q
Furnaces .....	168	248	87	119	31	3,534	5,239	1,911	3,529	1,091	47.6	47.3	45.6	33.8	28.1
Individual Space Heaters .....	108	120	72	52	16	2,259	2,849	1,662	1,685	513	47.6	42.2	43.1	30.9	31.9
District Heat .....	Q	Q	Q	Q	Q	323	Q	511	Q	Q	Q	Q	Q	Q	Q
Boilers .....	227	383	204	148	47	3,450	5,903	4,328	3,273	1,219	65.7	64.8	47.2	45.2	38.3
Packaged Heating Units .....	105	180	94	131	54	1,863	3,229	2,380	4,441	1,704	56.4	55.9	39.4	29.5	31.7
Other .....	17	14	Q	Q	Q	499	393	Q	Q	Q	33.7	35.7	Q	Q	Q
<b>Cooling Equipment (more than one may apply)</b>															
Residential-Type Central															
Air Conditioners .....	104	132	71	53	18	1,670	2,493	1,708	1,418	692	62.5	52.8	41.8	37.7	26.4
Heat Pumps .....	31	68	44	63	20	568	1,036	1,271	2,216	740	54.6	65.9	34.9	28.4	27.5
Packaged Heat Pumps .....	19	Q	27	Q	13	320	721	818	1,015	478	60.1	67.0	33.3	Q	28.0
Split-System Heat Pumps .....	Q	Q	Q	19	Q	Q	Q	Q	645	Q	Q	Q	Q	28.9	Q
Individual Room Heat Pumps .....	Q	Q	15	18	Q	Q	Q	412	931	Q	Q	Q	35.7	19.7	Q
Individual Air Conditioners .....	109	155	59	58	18	1,766	2,730	2,149	1,739	729	61.8	56.7	27.3	33.1	24.4
District Chilled Water .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Central Chillers .....	84	176	103	77	47	1,360	2,353	1,824	2,057	1,505	61.5	74.7	56.2	37.4	31.0
Packaged Air Conditioning															
Units .....	235	373	186	202	61	4,195	6,748	4,769	6,199	1,896	56.1	55.3	39.0	32.5	32.0
Swamp Coolers .....	31	Q	Q	Q	Q	500	Q	Q	Q	Q	61.4	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Main Equipment Replaced Since 1990 (more than one may apply)</b>															
Heating .....	132	229	108	90	27	2,495	3,951	2,409	2,310	1,111	53.0	58.0	44.9	39.0	24.4
Cooling .....	171	292	144	105	43	2,936	4,728	3,755	3,021	1,608	58.1	61.8	38.4	34.8	27.0
<b>Water Heating Equipment</b>															
Centralized System .....	285	402	199	224	79	4,862	7,466	4,960	5,532	2,533	58.6	53.9	40.1	40.6	31.2
Distributed System .....	48	97	36	47	18	973	2,378	1,428	2,135	645	49.7	40.9	25.4	22.2	27.2
Combination of Centralized and Distributed System .....	78	133	86	62	19	1,439	2,271	1,498	2,090	924	54.4	58.5	57.3	29.5	20.7
<b>Energy-Related Space Functions (more than one may apply)</b>															
Commercial Food Preparation .....	181	332	168	199	87	2,728	5,402	4,023	3,915	2,577	66.4	61.4	41.7	50.8	33.7
Activities with Large Amounts of Hot Water .....	193	296	139	204	71	2,903	4,514	3,303	3,485	1,818	66.4	65.5	42.2	58.5	39.2
Separate Computer Area .....	158	332	164	135	60	3,065	5,960	4,677	4,731	2,182	51.4	55.8	35.0	28.5	27.4
<b>HVAC Conservation Features (more than one may apply)</b>															
Variable Air-Volume System .....	135	246	129	127	51	2,506	4,172	2,922	2,931	2,063	53.8	59.0	44.2	43.2	24.8
Economizer Cycle .....	185	298	125	122	50	3,349	4,824	3,401	3,573	1,508	55.3	61.9	36.9	34.2	33.0
HVAC Maintenance .....	342	577	282	302	106	6,236	10,916	7,234	8,831	3,767	54.8	52.8	39.0	34.2	28.2
Energy Management and Control System (EMCS) .....	103	170	79	73	37	2,071	3,275	2,224	2,549	1,507	50.0	51.9	35.7	28.7	24.6

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**Table C30. Natural Gas Consumption and Conditional Energy Intensity by Climate Zone<sup>a</sup> for Non-Mall Buildings, 2003**

	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)				
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<b>All Buildings*</b> .....	418	659	327	347	119	7,645	12,850	8,113	10,509	4,350	54.7	51.3	40.3	33.0	27.3
<b>Equipment Usage Reduced When Building Not In Full Use (more than one may apply)<sup>b</sup></b>															
Heating .....	271	445	252	205	82	5,471	9,069	6,259	7,493	2,887	49.4	49.0	40.2	27.3	28.3
Cooling .....	273	421	244	218	94	5,274	8,512	6,533	7,662	3,457	51.8	49.5	37.3	28.4	27.1
Lighting .....	309	432	201	218	52	5,799	9,297	5,309	7,796	2,869	53.3	46.5	37.8	28.0	18.3
Office Equipment .....	127	171	84	65	16	2,606	4,072	2,335	2,753	904	48.6	41.9	35.9	23.6	17.5
<b>Annual Consumption (hundred cubic feet)</b>															
1,000 or Less .....	7	9	4	13	3	512	709	863	1,556	697	13.5	12.8	Q	8.2	3.8
1,001 to 5,000 .....	51	84	36	59	12	1,598	2,690	1,425	3,143	878	31.7	31.4	24.9	18.9	13.5
5,001 to 10,000 .....	62	84	37	37	19	1,132	1,782	967	1,343	1,030	55.2	47.1	38.5	27.5	18.1
10,001 to 25,000 .....	94	111	51	65	27	1,515	2,388	1,535	1,658	671	62.0	46.7	33.5	39.0	40.4
25,001 to 50,000 .....	74	86	50	60	Q	1,198	1,780	1,309	842	405	61.6	48.4	38.0	71.3	34.6
50,001 to 100,000 .....	39	75	58	Q	Q	673	1,321	859	Q	Q	58.6	56.6	67.1	Q	Q
Over 100,000 .....	91	209	91	83	36	1,017	2,181	1,155	1,022	499	89.7	95.7	78.7	81.2	71.6
<b>Provider of Natural Gas (more than one may apply)</b>															
Local Utility .....	360	532	269	312	109	6,785	10,649	7,347	9,557	4,024	53.1	49.9	36.6	32.6	27.1
Some Other Provider .....	80	159	81	42	Q	1,143	2,543	1,276	1,032	Q	69.8	62.6	63.6	40.5	Q

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.

<sup>a</sup> Climate zone (30-year average) definitions: Zone 1 = Under 2,000 CDD and more than 7,000 HDD; Zone 2 = Under 2,000 CDD and 5,500-7,000 HDD; Zone 3 = Under 2,000 CDD and 4,000-5,499 HDD; Zone 4 = Under 2,000 CDD and fewer than 4,000 HDD; Zone 5 = 2,000 CDD or more and fewer than 4,000 HDD. (See "Glossary" for definitions of CDD and HDD.)

<sup>b</sup> 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.