

**Table C37. Total District Heat Consumption and Expenditures for Non-Mall Buildings, 2003**

	All Buildings* Using District Heat			District Heat Consumption	District Heat Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
<b>All Buildings*</b> .....	67	5,443	81	634	7,245
<b>Building Floorspace (Square Feet)</b>					
1,001 to 5,000 .....	Q	Q	Q	Q	Q
5,001 to 10,000 .....	Q	Q	Q	Q	Q
10,001 to 25,000 .....	18	289	16	Q	Q
25,001 to 50,000 .....	10	369	35	Q	Q
50,001 to 100,000 .....	8	574	70	Q	Q
100,001 to 200,000 .....	9	1,399	148	165	Q
200,001 to 500,000 .....	4	1,018	286	123	Q
Over 500,000 .....	2	1,693	852	169	1,810
<b>Principal Building Activity</b>					
Education .....	26	1,145	45	134	Q
Food Sales .....	N	N	N	N	N
Food Service .....	Q	Q	Q	Q	Q
Health Care .....	2	493	Q	Q	Q
Inpatient .....	1	436	563	Q	Q
Outpatient .....	Q	Q	Q	Q	Q
Lodging .....	6	345	Q	Q	Q
Retail (Other Than Mall) .....	Q	Q	Q	Q	Q
Office .....	16	1,569	97	128	1,441
Public Assembly .....	6	547	89	Q	Q
Public Order and Safety .....	Q	Q	Q	Q	Q
Religious Worship .....	Q	Q	Q	Q	Q
Service .....	Q	Q	Q	Q	Q
Warehouse and Storage .....	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q
Vacant .....	Q	Q	Q	Q	Q
<b>Year Constructed</b>					
Before 1920 .....	6	294	46	Q	Q
1920 to 1945 .....	12	1,207	99	129	1,423
1946 to 1959 .....	15	705	49	Q	Q
1960 to 1969 .....	13	853	64	117	Q
1970 to 1979 .....	6	588	101	77	Q
1980 to 1989 .....	5	888	192	Q	Q
1990 to 1999 .....	8	705	87	Q	Q
2000 to 2003 .....	Q	Q	Q	Q	Q
<b>Census Region and Division</b>					
Northeast .....	17	1,363	78	165	2,136
New England .....	Q	Q	Q	Q	Q
Middle Atlantic .....	12	1,082	90	Q	Q
Midwest .....	13	1,648	126	225	2,329
East North Central .....	8	1,420	189	192	Q
West North Central .....	Q	Q	Q	Q	Q
South .....	21	1,766	83	182	Q
South Atlantic .....	15	1,243	86	117	Q
East South Central .....	Q	Q	Q	Q	Q
West South Central .....	Q	Q	Q	Q	Q
West .....	15	667	44	Q	Q
Mountain .....	7	253	35	Q	Q
Pacific .....	8	413	53	Q	Q

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	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
<b>All Buildings*</b> .....	67	5,443	81	634	7,245
<b>Climate Zone: 30-Year Average</b>					
Under 2,000 CDD and --					
More than 7,000 HDD .....	6	825	131	88	Q
5,500-7,000 HDD .....	27	1,784	66	255	Q
4,000-5,499 HDD .....	13	1,349	100	140	Q
Fewer than 4,000 HDD .....	13	1,025	78	101	Q
2,000 CDD or More and --					
Fewer than 4,000 HDD .....	7	460	65	Q	Q
<b>Number of Floors</b>					
One .....	14	Q	44	Q	Q
Two .....	19	515	27	Q	Q
Three .....	11	458	41	Q	Q
Four to Nine .....	20	2,473	125	308	3,462
Ten or More .....	3	1,366	496	123	1,454
<b>Number of Workers (main shift)</b>					
Fewer than 5 .....	20	853	42	Q	Q
5 to 9 .....	Q	Q	Q	Q	Q
10 to 19 .....	Q	Q	Q	Q	Q
20 to 49 .....	16	667	41	96	Q
50 to 99 .....	7	474	67	Q	Q
100 to 249 .....	9	1,050	117	124	Q
250 or More .....	5	2,191	406	232	2,502
<b>Weekly Operating Hours</b>					
Fewer than 40 .....	Q	Q	Q	Q	Q
40 to 48 .....	12	493	41	Q	Q
49 to 60 .....	18	1,590	87	176	2,041
61 to 84 .....	11	785	69	73	Q
85 to 167 .....	9	790	91	91	Q
Open Continuously .....	11	1,605	144	210	2,486
<b>Ownership and Occupancy</b>					
Nongovernment Owned .....	25	2,148	87	247	2,746
Owner Occupied .....	16	1,421	87	185	2,078
Nonowner Occupied .....	8	698	86	Q	Q
Unoccupied .....	Q	Q	Q	Q	Q
Government Owned .....	42	3,295	78	387	4,499
Federal .....	4	Q	219	Q	Q
State .....	27	1,694	63	188	Q
Local .....	11	653	59	Q	Q
<b>Vacancy Status</b>					
Completely Vacant .....	Q	Q	Q	Q	Q
Mostly Vacant.....	N	N	N	N	N
Partially Vacant .....	12	1,483	119	164	1,708
Not At All Vacant .....	54	3,834	71	461	5,427
<b>Number of Establishments</b>					
One .....	45	3,063	68	384	4,361
2 to 5 .....	15	1,301	85	156	Q
6 to 10 .....	Q	Q	Q	Q	Q
11 to 20 .....	Q	Q	Q	Q	Q
More than 20 .....	1	436	699	Q	Q
Currently Unoccupied .....	Q	Q	Q	Q	Q

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	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
<b>All Buildings*</b> .....	67	5,443	81	634	7,245
<b>Predominant Exterior Wall Material</b>					
Brick, Stone or Stucco .....	53	3,380	64	408	4,728
Concrete (Block or Poured) .....	6	702	110	Q	Q
Concrete Panels .....	4	787	176	Q	Q
Siding or Shingles .....	Q	Q	Q	Q	Q
Metal Panels .....	Q	Q	Q	Q	Q
Window Glass .....	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q
No One Major Type .....	Q	Q	Q	Q	Q
<b>Predominant Roof Material</b>					
Built-Up .....	23	2,607	112	263	3,144
Shingles (Not Wood) .....	14	215	16	Q	Q
Metal Surfacing .....	Q	Q	Q	Q	Q
Synthetic or Rubber .....	17	1,339	77	171	Q
Slate or Tile .....	4	270	72	Q	Q
Wooden Materials .....	Q	Q	Q	Q	Q
Concrete .....	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q
No One Major Type .....	Q	Q	Q	Q	Q
<b>Renovations in Buildings Constructed Before 1980 (more than one may apply)</b>					
Any Type of Renovation					
Since 1980 .....	19	1,774	92	197	2,170
Addition or Annex .....	3	481	186	Q	Q
Reduction In Floorspace .....	Q	Q	Q	Q	Q
Cosmetic Improvements .....	12	1,298	109	143	1,595
Wall or Roof Replacement .....	9	897	99	99	Q
Interior Wall					
Re-Configuration .....	7	1,088	158	124	1,315
HVAC Equipment Upgrade .....	10	1,381	137	128	1,520
Lighting Upgrade .....	16	1,413	88	157	1,706
Window Replacement .....	6	725	Q	Q	Q
Plumbing System Upgrade .....	8	963	Q	103	1,211
Insulation Upgrade .....	3	401	144	Q	Q
Other Renovation .....	Q	Q	Q	Q	Q
No Renovations Since 1980 .....	33	1,873	57	229	Q
Building Newer than 1980 .....	15	1,796	122	208	Q
<b>Energy Sources (more than one may apply)</b>					
Electricity .....	67	5,443	81	634	7,245
Natural Gas .....	25	2,444	100	305	3,578
Fuel Oil .....	4	1,731	393	177	1,960
District Heat .....	67	5,443	81	634	7,245
District Chilled Water .....	25	2,311	93	309	Q
Propane .....	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q

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	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
<b>All Buildings*</b> .....	67	5,443	81	634	7,245
<b>Space-Heating Energy Sources</b>					
District Heat .....	65	5,198	80	633	7,238
District Heat Main .....	63	4,907	77	618	7,089
District Heat Secondary .....	2	340	167	Q	Q
Other Excluding District Heat .....	Q	Q	Q	Q	Q
Buildings without Heating .....	Q	Q	Q	Q	Q
<b>Primary Space-Heating Energy Source</b>					
Electricity .....	Q	Q	Q	Q	Q
Natural Gas .....	Q	Q	Q	Q	Q
Fuel Oil.....	N	N	N	N	N
District Heat .....	63	4,907	77	618	7,089
Propane.....	N	N	N	N	N
Other.....	N	N	N	N	N
<b>Cooling Energy Sources</b>					
District Heat .....	Q	Q	Q	Q	Q
Other Excluding District Heat .....	54	4,204	78	493	5,743
Buildings without Cooling .....	Q	Q	Q	Q	Q
<b>Water-Heating Energy Sources</b>					
District Heat .....	27	3,088	113	329	3,690
Other Excluding District Heat .....	34	1,543	46	194	Q
Buildings without Water Heating .....	Q	Q	Q	Q	Q
<b>Cooking Energy Sources</b>					
District Heat .....	2	588	361	77	Q
Other Excluding District Heat .....	7	1,338	Q	142	1,547
Buildings without Cooking .....	58	3,517	61	415	4,849
<b>Energy End Uses (more than one may apply)</b>					
Buildings with Space Heating .....	67	5,378	81	634	7,242
Buildings with Cooling .....	55	4,653	85	535	6,079
Buildings with Water Heating .....	61	4,631	76	523	5,984
Buildings with Cooking .....	9	1,926	214	219	2,396
Buildings with Manufacturing .....	Q	Q	Q	Q	Q
Buildings with Electricity Generation .....	7	2,121	309	237	2,772
<b>Percent of Floorspace Heated</b>					
Not Heated .....	Q	Q	Q	Q	Q
1 to 50 .....	Q	Q	Q	Q	Q
51 to 99 .....	5	636	116	57	Q
100 .....	60	4,716	78	575	6,635

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<b>All Buildings*</b> .....	67	5,443	81	634	7,245
<b>Heating Equipment (more than one may apply)</b>					
Heat Pumps .....	2	413	208	Q	Q
Packaged Heat Pumps .....	Q	Q	Q	Q	Q
Split-System Heat Pumps .....	Q	Q	Q	Q	Q
Individual Room Heat Pumps .....	Q	Q	Q	Q	Q
Furnaces .....	Q	Q	Q	Q	Q
Individual Space Heaters .....	5	605	124	50	Q
District Heat .....	65	5,166	80	628	7,177
Boilers .....	Q	Q	Q	Q	Q
Packaged Heating Units .....	3	589	191	Q	Q
Other .....	Q	Q	Q	Q	Q
<b>Water Heating Equipment</b>					
Centralized System .....	43	2,671	62	286	3,266
Distributed System .....	5	483	89	Q	Q
Combination of Centralized and Distributed System .....	12	1,477	119	170	1,811
<b>Energy-Related Space Functions (more than one may apply)</b>					
Commercial Food Preparation .....	9	1,926	214	219	2,396
Activities with Large Amounts of Hot Water .....	19	2,259	121	273	3,003
Separate Computer Area .....	19	3,268	172	374	4,282
<b>HVAC Conservation Features (more than one may apply)</b>					
Variable Air-Volume System .....	26	3,017	117	368	4,184
Economizer Cycle .....	22	3,045	140	334	3,896
HVAC Maintenance .....	60	5,154	86	612	6,987
Energy Management and Control System (EMCS) .....	18	2,782	158	320	3,636
<b>Equipment Usage Reduced When Building Not In Full Use (more than one may apply)<sup>a</sup></b>					
Heating .....	30	3,140	105	356	4,048
Cooling .....	29	3,378	117	390	4,461
Lighting .....	49	3,624	73	406	4,534
Office Equipment .....	23	1,325	58	Q	Q

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<b>All Buildings*</b> .....	67	5,443	81	634	7,245

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/cbeecs>.

\* 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, there were no responding malls in the sample using district heat.

<sup>a</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 district heat.

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.