

Table C37. Total district heat consumption and expenditures, 2012

	All buildings using district heat			District heat consumption	District heat expenditures
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
All buildings	48	5,964	124.9	341	6,675
Building floorspace (square feet)					
1,001 to 25,000	16	169	10.7	13	272
25,001 to 50,000	6	213	36.8	17	320
50,001 to 100,000	10	704	68.2	52	870
100,001 to 200,000	9	1,313	146.7	77	1,678
200,001 to 500,000	5	1,565	309.9	88	1,683
Over 500,000	2	2,001	1054.3	94	1,852
Principal building activity					
Education	12	1,155	92.8	65	1,068
Food sales	N	N	N	N	N
Food service	Q	Q	Q	Q	Q
Health care	2	684	333.6	68	1,225
Inpatient	1	576	458.0	62	1,136
Outpatient	Q	Q	Q	Q	Q
Lodging	4	630	156.5	31	667
Mercantile	Q	Q	Q	Q	Q
Retail (other than mall)	Q	Q	Q	Q	Q
Enclosed and strip malls	Q	Q	Q	Q	Q
Office	12	1,794	144.9	76	1,787
Public assembly	7	888	132.5	64	1,106
Public order and safety	Q	Q	Q	Q	Q
Religious worship	N	N	N	N	N
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
Year constructed					
Before 1920	5	540	106.8	25	523
1920 to 1945	7	888	122.7	40	898
1946 to 1959	5	446	89.7	29	538
1960 to 1969	9	1,002	111.9	66	1,185
1970 to 1979	10	930	96.1	73	1,655
1980 to 1989	2	449	257.8	17	321
1990 to 1999	3	642	218.8	23	420
2000 to 2003	4	Q	116.7	Q	Q
2004 to 2007	2	Q	Q	23	Q
2008 to 2012	Q	Q	Q	Q	Q

Table C37. Total district heat consumption and expenditures, 2012

	All buildings using district heat			District heat consumption	District heat expenditures
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
All buildings	48	5,964	124.9	341	6,675
Census region and division					
Northeast	16	1,981	127.8	119	3,049
New England	Q	Q	Q	Q	Q
Middle Atlantic	9	1,628	184.9	81	2,414
Midwest	7	906	134.2	58	912
East North Central	3	574	192.9	32	461
West North Central	4	332	87.9	Q	Q
South	18	2,191	119.5	119	1,960
South Atlantic	9	1,159	135.9	59	1,013
East South Central	Q	Q	88.1	Q	Q
West South Central	5	646	119.2	Q	557
West	7	886	123.7	45	753
Mountain	Q	482	Q	23	Q
Pacific	5	404	76.1	22	404
Climate region¹					
Very cold/Cold	18	1,926	109.8	137	2,271
Mixed-humid	20	3,012	147.2	152	3,589
Mixed-dry/Hot-dry	4	Q	138.1	Q	Q
Hot-humid	Q	374	83.2	18	319
Marine	Q	Q	Q	Q	Q
Number of floors					
One	Q	Q	Q	Q	Q
Two	11	Q	44.5	Q	Q
Three	10	544	56.7	47	784
Four to nine	18	2,830	160.5	173	2,973
Ten or more	3	1,900	564.0	77	1,834
Number of workers (main shift)					
Fewer than 5	Q	Q	Q	Q	Q
5 to 9	Q	Q	Q	Q	Q
10 to 19	Q	Q	Q	Q	Q
20 to 49	11	623	56.8	43	813
50 to 99	7	669	93.3	38	585
100 to 249	7	1,096	159.8	67	1,040
250 or more	7	3,082	472.6	171	3,808
Weekly operating hours					
Fewer than 40	Q	Q	Q	Q	Q
40 to 48	7	403	56.8	19	369
49 to 60	11	1,099	95.9	50	869
61 to 84	9	844	97.6	31	607
85 to 167	6	631	98.3	58	1,072
Open continuously	11	2,815	245.6	180	3,722

Table C37. Total district heat consumption and expenditures, 2012

	All buildings using district heat			District heat consumption	District heat expenditures
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
All buildings	48	5,964	124.9	341	6,675
Ownership and occupancy					
Nongovernment owned	22	3,135	145.6	168	3,244
Owner occupied	13	1,842	139.5	115	1,997
Leased to tenant(s)	Q	730	Q	25	649
Owner occupied and leased	2	557	237.6	27	597
Unoccupied	Q	Q	Q	Q	Q
Government owned	26	2,829	107.9	173	3,431
Federal	1	708	647.1	27	550
State	18	1,538	84.0	105	2,023
Local	7	584	85.6	41	858
Party responsible for operation and maintenance of energy systems					
Building owner	46	5,776	126.9	324	6,273
Business owner or tenant	Q	Q	Q	Q	Q
Property management	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q
Provider of direct input on energy-related equipment purchases					
Building owner	46	5,733	125.8	325	6,263
Business owner or tenant	Q	Q	Q	Q	Q
Property management	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q
Number of establishments					
One	36	3,410	95.2	208	3,958
2 to 5	8	1,457	180.0	98	1,940
6 to 10	Q	357	232.3	11	267
11 to 20	Q	Q	Q	Q	Q
More than 20	1	447	771.9	15	315
Currently unoccupied	Q	Q	Q	Q	Q
Predominant exterior wall material					
Brick, stone, or stucco	32	3,423	107.9	203	3,569
Concrete (block or poured)	9	1,166	134.8	56	1,506
Concrete panels	2	730	321.9	38	747
Siding or shingles	Q	Q	Q	Q	Q
Metal panels	Q	Q	Q	Q	Q
Window glass	Q	214	Q	13	199
Other	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q

Table C37. Total district heat consumption and expenditures, 2012

	All buildings using district heat			District heat consumption	District heat expenditures
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
All buildings	48	5,964	124.9	341	6,675
Predominant roof material					
Metal surfacing	Q	Q	Q	Q	Q
Synthetic or rubber	19	1,958	104.3	112	2,104
Built-up	13	1,893	145.1	98	2,357
Slate or tile shingles	6	Q	131.9	Q	775
Wooden materials (including shingles)	Q	Q	Q	Q	Q
Asphalt, fiberglass, or other shingles	5	552	101.9	40	768
Concrete	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q
Roof characteristics					
Roof tilt					
Flat	34	4,172	121.6	225	4,754
Shallow pitch	7	1,120	154.6	64	1,057
Steeper pitch	6	672	108.4	Q	863
Cool roof	10	1,779	177.0	94	2,187
Renovations in buildings constructed before 2008 (more than one may apply)					
Any type of renovation	27	3,993	145.7	240	4,905
Addition or annex	4	1,256	286.9	91	1,725
Reduction in floorspace	Q	Q	Q	Q	Q
Roof replacement	12	2,021	167.3	126	2,829
Exterior wall replacement	1	369	454.4	18	397
Interior wall reconfiguration	14	2,600	186.6	157	3,075
Window replacement	6	1,447	228.7	68	1,483
HVAC equipment upgrade	17	3,005	181.5	177	3,934
Lighting upgrade	18	3,055	168.8	180	3,279
Electrical upgrade	11	2,051	190.6	116	2,361
Plumbing system upgrade	8	1,724	213.5	90	1,852
Insulation upgrade	6	1,070	172.1	60	1,132
Fire, safety, or security upgrade	12	2,092	175.2	115	2,288
Structural upgrade	Q	697	Q	29	528
Other	Q	Q	Q	Q	Q
No renovations	19	1,770	92.9	87	1,499
Buildings constructed 2008 or later	Q	Q	Q	Q	Q

Table C37. Total district heat consumption and expenditures, 2012

	All buildings using district heat			District heat consumption	District heat expenditures
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
All buildings	48	5,964	124.9	341	6,675
Energy sources (more than one may apply)					
Electricity	48	5,964	124.9	341	6,675
Natural gas	17	2,860	168.1	173	3,541
Fuel oil	10	3,110	307.5	171	3,319
District heat	48	5,964	124.9	341	6,675
District chilled water	26	3,730	144.5	236	4,417
Propane	Q	Q	Q	Q	Q
Other	1	335	265.1	15	259
Space-heating energy sources					
District heat	48	5,925	124.3	340	6,656
District heat main	47	5,797	122.9	338	6,627
District heat secondary	Q	Q	Q	Q	Q
Other excluding district heat	Q	Q	Q	Q	Q
Buildings without heating	Q	Q	Q	Q	Q
Primary space-heating energy source					
Electricity	Q	Q	Q	Q	Q
Natural gas	Q	Q	Q	Q	Q
Fuel oil	Q	Q	Q	Q	Q
District heat	47	5,797	122.9	338	6,627
Propane	N	N	N	N	N
Other	N	N	N	N	N
Cooling energy sources					
District heat	1	251	269.9	23	570
Other excluding district heat	43	5,651	131.1	314	6,064
Buildings without cooling	Q	Q	Q	Q	Q
Water-heating energy sources					
District heat	25	4,551	179.7	279	5,437
Other excluding district heat	19	1,271	65.7	57	1,099
Buildings without water heating	Q	Q	Q	Q	Q
Cooking energy sources					
District heat	Q	942	Q	77	1,706
Other excluding district heat	10	2,212	231.1	94	1,868
Buildings without cooking	34	2,810	82.7	170	3,101

Table C37. Total district heat consumption and expenditures, 2012

	All buildings using district heat			District heat consumption	District heat expenditures
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
All buildings	48	5,964	124.9	341	6,675
Energy end uses (more than one may apply)					
Buildings with space heating	48	5,962	124.9	341	6,673
Buildings with cooling	44	5,903	134.0	337	6,634
Buildings with water heating	45	5,822	130.4	336	6,537
Buildings with cooking	14	3,154	228.7	171	3,574
Buildings with manufacturing	Q	Q	Q	Q	Q
Buildings with electricity generation	15	3,749	248.2	208	3,879
Percent of floorspace heated					
Not heated	Q	Q	Q	Q	Q
1 to 50	Q	Q	Q	Q	Q
51 to 99	7	1,126	168.2	39	901
100	40	4,720	117.1	300	5,758
Heating equipment (more than one may apply)					
Heat pumps	3	556	210.3	27	536
Furnaces	Q	Q	Q	Q	Q
Individual space heaters	9	1,354	158.2	63	1,207
District heat	48	5,925	124.3	340	6,656
Boilers	Q	Q	Q	Q	Q
Packaged heating units	3	742	213.3	45	865
Other	Q	Q	Q	Q	Q
Water-heating equipment					
Centralized system	30	3,596	119.0	227	4,357
Distributed system	6	501	81.9	23	539
Combination of centralized and distributed system	8	1,725	207.5	86	1,641
Food preparation or serving areas in non-food service buildings (more than one may apply)					
Snack bar or concession stand	3	1,613	513.4	81	1,489
Fast food or small restaurant	2	1,195	527.7	61	1,142
Cafeteria or large restaurant	6	1,828	319.1	105	2,269
Commercial kitchen/food preparation area	4	1,562	387.2	97	2,170
Small kitchen area	3	1,138	362.6	55	1,001
HVAC conservation features (more than one may apply)					
Economizer cycle	23	4,090	181.3	245	5,088
Regular HVAC maintenance	41	5,630	138.8	319	6,375
Building automation system (BAS) ²	30	5,006	169.0	266	5,023

Table C37. Total district heat consumption and expenditures, 2012

	All buildings using district heat			District heat consumption	District heat expenditures
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
All buildings	48	5,964	124.9	341	6,675
Equipment usage reduced when building not in full use (more than one may apply)					
Heating	32	4,027	124.2	208	4,494
Cooling	31	4,045	129.7	209	4,419
Lighting	45	5,507	122.9	318	6,240

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 D of the 2012 Commercial Buildings Energy Consumption Survey.

Table C38. District heat consumption and expenditure intensities, 2012

	District heat consumption		District heat expenditures			
	per building (million Btu)	per square foot (thousand Btu)	per worker (million Btu)	per building (thousand dollars)	per square foot (dollars)	per million Btu (dollars)
All buildings	7,132	57.1	41.4	139.8	1.12	19.60
Building floorspace (square feet)						
1,001 to 25,000	806	75.0	50.9	17.3	1.61	21.42
25,001 to 50,000	2,940	79.8	71.9	55.3	1.50	18.80
50,001 to 100,000	4,997	73.3	64.2	84.2	1.23	16.84
100,001 to 200,000	8,650	59.0	Q	187.5	1.28	21.68
200,001 to 500,000	17,418	56.2	45.7	333.4	1.08	19.14
Over 500,000	49,493	46.9	27.5	976.0	0.93	19.72
Principal building activity						
Education	5,215	56.2	85.2	85.8	0.92	16.46
Food sales	N	N	N	N	N	N
Food service	Q	Q	Q	Q	Q	Q
Health care	33,123	99.3	50.3	597.1	1.79	18.03
Inpatient	49,661	108.4	58.3	903.2	1.97	18.19
Outpatient	Q	Q	Q	Q	Q	Q
Lodging	7,723	49.4	128.4	165.5	1.06	21.43
Mercantile	Q	Q	Q	Q	Q	Q
Retail (other than mall)	Q	Q	Q	Q	Q	Q
Enclosed and strip malls	Q	Q	Q	Q	Q	Q
Office	6,130	42.3	17.3	144.4	1.00	23.55
Public assembly	9,513	71.8	102.5	165.0	1.25	17.35
Public order and safety	Q	Q	Q	Q	Q	Q
Religious worship	N	N	N	N	N	N
Service	Q	Q	Q	Q	Q	Q
Warehouse and storage	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q
Year constructed						
Before 1920	5,028	47.1	40.6	103.6	0.97	20.60
1920 to 1945	5,497	44.8	25.0	124.0	1.01	22.56
1946 to 1959	Q	65.8	54.6	108.1	1.20	18.32
1960 to 1969	7,330	65.5	54.5	132.3	1.18	18.04
1970 to 1979	7,574	78.9	39.0	171.0	1.78	22.57
1980 to 1989	9,499	36.9	21.9	184.6	0.72	19.44
1990 to 1999	7,851	35.9	31.5	142.9	0.65	18.21
2000 to 2003	7,079	60.7	70.7	110.2	0.94	15.57
2004 to 2007	14,439	62.6	73.9	247.5	1.07	17.14
2008 to 2012	Q	Q	Q	Q	Q	Q

Table C38. District heat consumption and expenditure intensities, 2012

	District heat consumption		District heat expenditures			
	per building (million Btu)	per square foot (thousand Btu)	per worker (million Btu)	per building (thousand dollars)	per square foot (dollars)	per million Btu (dollars)
All buildings	7,132	57.1	41.4	139.8	1.12	19.60
Census region and division						
Northeast	7,661	60.0	29.3	196.7	1.54	25.67
New England	Q	106.4	Q	Q	1.80	16.92
Middle Atlantic	9,227	49.9	23.3	274.2	1.48	29.71
Midwest	8,553	63.8	69.3	135.1	1.01	15.79
East North Central	10,913	56.6	56.9	154.8	0.80	14.18
West North Central	6,694	76.1	96.1	119.6	1.36	17.86
South	6,483	54.2	52.6	106.9	0.89	16.49
South Atlantic	6,901	50.8	42.5	118.8	0.87	17.22
East South Central	Q	Q	72.7	Q	Q	17.98
West South Central	Q	59.3	66.5	102.7	0.86	14.54
West	6,309	51.0	41.5	105.1	0.85	16.66
Mountain	Q	48.3	43.6	Q	0.72	15.00
Pacific	4,130	54.3	39.6	76.1	1.00	18.42
Climate region¹						
Very cold/Cold	7,830	71.3	61.6	129.5	1.18	16.53
Mixed-humid	7,412	50.4	30.9	175.3	1.19	23.66
Mixed-dry/Hot-dry	Q	53.8	51.2	98.5	0.71	13.25
Hot-humid	4,057	48.8	51.6	71.0	0.85	17.51
Marine	Q	Q	Q	Q	Q	Q
Number of floors						
One	Q	Q	Q	Q	Q	Q
Two	Q	67.7	Q	Q	1.91	28.22
Three	4,951	87.3	76.4	81.7	1.44	16.50
Four to nine	9,805	61.1	60.9	168.6	1.05	17.20
Ten or more	22,931	40.7	21.4	544.5	0.97	23.74
Number of workers (main shift)						
Fewer than 5	Q	Q	Q	Q	Q	Q
5 to 9	Q	Q	Q	Q	Q	Q
10 to 19	Q	Q	Q	Q	Q	Q
20 to 49	3,890	68.5	119.0	74.1	1.30	19.04
50 to 99	5,265	56.5	82.9	81.6	0.87	15.50
100 to 249	9,759	61.1	65.7	151.7	0.95	15.54
250 or more	26,182	55.4	27.1	583.8	1.24	22.30
Weekly operating hours						
Fewer than 40	Q	Q	Q	Q	Q	Q
40 to 48	2,711	47.7	35.4	52.1	0.92	19.20
49 to 60	4,345	45.3	28.7	75.9	0.79	17.46
61 to 84	3,573	36.6	22.7	70.1	0.72	19.63
85 to 167	9,108	92.6	119.3	167.1	1.70	18.35
Open continuously	15,674	63.8	44.3	324.8	1.32	20.72

Table C38. District heat consumption and expenditure intensities, 2012

	District heat consumption			District heat expenditures		
	per building (million Btu)	per square foot (thousand Btu)	per worker (million Btu)	per building (thousand dollars)	per square foot (dollars)	per million Btu (dollars)
All buildings	7,132	57.1	41.4	139.8	1.12	19.60
Ownership and occupancy						
Nongovernment owned	7,796	53.5	37.4	150.7	1.03	19.33
Owner occupied	8,721	62.5	66.8	151.2	1.08	17.34
Leased to tenant(s)	Q	34.8	13.5	Q	0.89	25.57
Owner occupied and leased	11,621	48.9	30.8	254.7	1.07	21.91
Unoccupied	Q	Q	N	Q	Q	Q
Government owned	6,588	61.1	46.2	130.8	1.21	19.86
Federal	24,285	37.5	28.3	503.2	0.78	20.72
State	5,724	68.2	54.5	110.5	1.32	19.30
Local	6,069	70.9	47.1	125.7	1.47	20.71
Party responsible for operation and maintenance of energy systems						
Building owner	7,113	56.1	40.7	137.8	1.09	19.37
Business owner or tenant	Q	Q	Q	Q	Q	Q
Property management	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q
Provider of direct input on energy-related equipment purchases						
Building owner	7,123	56.6	41.3	137.5	1.09	19.30
Business owner or tenant	Q	Q	Q	Q	Q	Q
Property management	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q
Number of establishments						
One	5,813	61.1	50.7	110.5	1.16	19.01
2 to 5	12,148	67.5	60.0	239.6	1.33	19.73
6 to 10	7,050	30.4	15.5	174.0	0.75	24.68
11 to 20	Q	Q	Q	Q	Q	Q
More than 20	26,183	33.9	12.7	545.0	0.71	20.81
Currently unoccupied	Q	Q	N	Q	Q	Q
Predominant exterior wall material						
Brick, stone, or stucco	6,406	59.3	47.5	112.6	1.04	17.57
Concrete (block or poured)	6,479	48.1	30.6	174.1	1.29	26.87
Concrete panels	16,644	51.7	41.8	329.6	1.02	19.80
Siding or shingles	Q	Q	Q	Q	Q	Q
Metal panels	Q	Q	Q	Q	Q	Q
Window glass	Q	62.4	27.0	Q	0.93	14.95
Other	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q

Table C38. District heat consumption and expenditure intensities, 2012

	District heat consumption			District heat expenditures		
	per building (million Btu)	per square foot (thousand Btu)	per worker (million Btu)	per building (thousand dollars)	per square foot (dollars)	per million Btu (dollars)
All buildings	7,132	57.1	41.4	139.8	1.12	19.60
Predominant roof material						
Metal surfacing	Q	Q	Q	Q	Q	Q
Synthetic or rubber	5,959	57.1	45.2	112.1	1.07	18.81
Built-up	7,532	51.9	30.9	180.7	1.24	23.99
Slate or tile shingles	8,588	65.1	67.0	126.2	0.96	14.70
Wooden materials (including shingles)	Q	Q	Q	Q	Q	Q
Asphalt, fiberglass, or other shingles	7,436	73.0	47.1	141.8	1.39	19.07
Concrete	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q
No one major type	Q	Q	Q	Q	Q	Q
Roof characteristics						
Roof tilt						
Flat	6,559	53.9	35.9	138.6	1.14	21.13
Shallow pitch	8,838	57.2	60.7	145.9	0.94	16.51
Steeper pitch	8,310	76.7	Q	139.1	1.28	16.74
Cool roof	9,339	52.8	33.9	217.6	1.23	23.30
Renovations in buildings constructed before 2008 (more than one may apply)						
Any type of renovation	8,747	60.1	40.1	179.0	1.23	20.46
Addition or annex	20,860	72.7	71.2	393.8	1.37	18.88
Reduction in floorspace	Q	Q	Q	Q	Q	Q
Roof replacement	10,453	62.5	37.6	234.2	1.40	22.41
Exterior wall replacement	22,742	50.1	25.6	488.8	1.08	21.49
Interior wall reconfiguration	11,243	60.3	40.3	220.6	1.18	19.62
Window replacement	10,669	46.7	28.2	234.4	1.02	21.97
HVAC equipment upgrade	10,714	59.0	36.7	237.5	1.31	22.17
Lighting upgrade	9,919	58.8	43.6	181.1	1.07	18.26
Electrical upgrade	10,806	56.7	38.2	219.5	1.15	20.31
Plumbing system upgrade	11,195	52.4	33.9	229.4	1.07	20.49
Insulation upgrade	9,661	56.2	41.3	182.1	1.06	18.85
Fire, safety, or security upgrade	9,617	54.9	36.1	191.6	1.09	19.92
Structural upgrade	Q	41.0	42.6	Q	0.76	18.47
Other	Q	Q	Q	Q	Q	Q
No renovations	4,544	48.9	41.6	78.7	0.85	17.31
Buildings constructed 2008 or later	Q	Q	Q	Q	Q	Q

Table C38. District heat consumption and expenditure intensities, 2012

	District heat consumption			District heat expenditures		
	per building (million Btu)	per square foot (thousand Btu)	per worker (million Btu)	per building (thousand dollars)	per square foot (dollars)	per million Btu (dollars)
All buildings	7,132	57.1	41.4	139.8	1.12	19.60
Energy sources (more than one may apply)						
Electricity	7,132	57.1	41.4	139.8	1.12	19.60
Natural gas	10,172	60.5	38.2	208.1	1.24	20.46
Fuel oil	16,949	55.1	38.5	328.2	1.07	19.36
District heat	7,132	57.1	41.4	139.8	1.12	19.60
District chilled water	9,135	63.2	48.5	171.1	1.18	18.73
Propane	Q	Q	Q	Q	Q	Q
Other	11,668	44.0	58.2	205.3	0.77	17.60
Space-heating energy sources						
District heat	7,123	57.3	41.6	139.6	1.12	19.60
District heat main	7,163	58.3	42.0	140.4	1.14	19.61
District heat secondary	Q	Q	Q	Q	Q	Q
Other excluding district heat	Q	Q	Q	Q	Q	Q
Buildings without heating	Q	Q	Q	Q	Q	Q
Primary space-heating energy source						
Electricity	Q	Q	Q	Q	Q	Q
Natural gas	Q	Q	Q	Q	Q	Q
Fuel oil	Q	Q	Q	Q	Q	Q
District heat	7,163	58.3	42.0	140.4	1.14	19.61
Propane	N	N	N	N	N	N
Other	N	N	N	N	N	N
Cooling energy sources						
District heat	24,774	91.8	36.6	612.0	2.27	24.70
Other excluding district heat	7,278	55.5	41.4	140.6	1.07	19.32
Buildings without cooling	Q	Q	Q	Q	Q	Q
Water-heating energy sources						
District heat	11,012	61.3	43.8	214.7	1.19	19.50
Other excluding district heat	2,957	45.0	31.4	56.9	0.87	19.23
Buildings without water heating	Q	Q	Q	Q	Q	Q
Cooking energy sources						
District heat	Q	81.6	39.4	Q	1.81	22.18
Other excluding district heat	9,834	42.6	25.2	195.2	0.84	19.85
Buildings without cooking	4,993	60.4	66.6	91.3	1.10	18.28
Energy end uses (more than one may apply)						
Buildings with space heating	7,132	57.1	41.4	139.8	1.12	19.60
Buildings with cooling	7,648	57.1	41.0	150.6	1.12	19.69
Buildings with water heating	7,524	57.7	41.1	146.4	1.12	19.45
Buildings with cooking	12,402	54.2	30.1	259.2	1.13	20.90
Buildings with manufacturing	Q	Q	Q	Q	Q	Q
Buildings with electricity generation	13,761	55.5	42.2	256.8	1.03	18.66

Table C38. District heat consumption and expenditure intensities, 2012

	District heat consumption			District heat expenditures		
	per building (million Btu)	per square foot (thousand Btu)	per worker (million Btu)	per building (thousand dollars)	per square foot (dollars)	per million Btu (dollars)
All buildings	7,132	57.1	41.4	139.8	1.12	19.60
Percent of floorspace heated						
Not heated	Q	Q	Q	Q	Q	Q
1 to 50	Q	Q	Q	Q	Q	Q
51 to 99	5,887	35.0	23.4	134.6	0.80	22.87
100	7,448	63.6	46.2	142.8	1.22	19.18
Heating equipment (more than one may apply)						
Heat pumps	10,088	48.0	31.5	202.9	0.96	20.12
Furnaces	Q	Q	Q	Q	Q	Q
Individual space heaters	7,322	46.3	33.4	141.1	0.89	19.26
District heat	7,123	57.3	41.6	139.6	1.12	19.60
Boilers	Q	Q	Q	Q	Q	Q
Packaged heating units	12,810	60.0	35.4	248.8	1.17	19.42
Other	Q	Q	Q	Q	Q	Q
Water-heating equipment						
Centralized system	7,504	63.1	47.7	144.1	1.21	19.21
Distributed system	3,797	46.4	23.5	88.0	1.07	23.18
Combination of centralized and distributed system	10,340	49.8	35.2	197.4	0.95	19.09
Food preparation or serving areas in non-food service buildings (more than one may apply)						
Snack bar or concession stand	25,743	50.1	32.7	473.8	0.92	18.41
Fast food or small restaurant	26,948	51.1	28.3	504.2	0.96	18.71
Cafeteria or large restaurant	18,411	57.7	28.9	396.2	1.24	21.52
Commercial kitchen/ food preparation area	24,004	62.0	38.6	538.2	1.39	22.42
Small kitchen area	17,389	48.0	25.3	319.0	0.88	18.34
HVAC conservation features (more than one may apply)						
Economizer cycle	10,862	59.9	39.5	225.6	1.24	20.76
Regular HVAC maintenance	7,865	56.7	39.8	157.1	1.13	19.98
Building automation system (BAS) ²	8,974	53.1	41.1	169.6	1.00	18.90
Equipment usage reduced when building not in full use (more than one may apply)						
Heating	6,402	51.6	34.9	138.6	1.12	21.64
Cooling	6,687	51.6	34.0	141.6	1.09	21.18
Lighting	7,097	57.7	40.9	139.3	1.13	19.63

Table C38. District heat consumption and expenditure intensities, 2012

	District heat consumption			District heat expenditures		
	per building (million Btu)	per square foot (thousand Btu)	per worker (million Btu)	per building (thousand dollars)	per square foot (dollars)	per million Btu (dollars)
All buildings	7,132	57.1	41.4	139.8	1.12	19.60

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 D of the 2012 Commercial Buildings Energy Consumption Survey.