

Table E9. Fuel Oil Consumption (Btu) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (trillion Btu)					Fuel Oil Energy Intensity (thousand Btu/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	222	194	17	Q	10	14.7	12.8	1.1	Q	0.6
Building Floorspace (Square Feet)										
1,001 to 5,000	34	32	Q	(*)	Q	57.4	52.7	Q	(*)	Q
5,001 to 10,000	36	33	Q	(*)	Q	50.6	45.8	Q	0.1	Q
10,001 to 25,000	27	25	1	(*)	Q	28.2	25.4	1.5	0.1	Q
25,001 to 50,000	16	15	Q	(*)	1	19.7	18.8	Q	(*)	0.7
50,001 to 100,000	26	23	1	Q	1	15.0	13.3	0.8	Q	0.6
100,001 to 200,000	37	34	Q	Q	1	12.5	11.6	Q	Q	0.5
200,001 to 500,000	36	25	Q	Q	2	10.5	7.5	2.4	Q	0.5
Over 500,000	10	Q	Q	Q	2	2.4	Q	Q	Q	0.5
Principal Building Activity										
Education	47	45	2	Q	Q	25.4	23.9	0.8	Q	0.3
Food Sales	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food Service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Health Care	11	6	2	Q	2	5.6	3.3	0.8	Q	1.3
Inpatient	9	5	2	Q	2	5.3	2.9	0.9	Q	1.4
Outpatient	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging	35	25	Q	(*)	1	16.1	11.2	Q	0.2	0.3
Retail (Other Than Mall).....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Office	18	15	Q	Q	1	4.3	3.8	Q	Q	0.4
Public Assembly	29	28	Q	(*)	Q	30.7	29.7	Q	(*)	Q
Public Order and Safety	8	6	Q	(*)	Q	Q	Q	Q	Q	Q
Religious Worship	18	18	Q	(*)	Q	39.8	39.3	Q	(*)	Q
Service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Warehouse and Storage	9	Q	Q	(*)	Q	7.3	6.3	Q	0.1	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed										
Before 1920	38	35	Q	(*)	Q	39.3	36.4	Q	0.2	Q
1920 to 1945	54	44	9	Q	(*)	27.2	22.4	4.6	Q	0.2
1946 to 1959	48	45	Q	(*)	Q	23.5	21.9	Q	(*)	Q
1960 to 1969	Q	Q	Q	Q	Q	21.7	20.0	0.7	Q	0.5
1970 to 1979	22	19	1	Q	2	10.2	8.7	0.6	Q	0.9
1980 to 1989	9	6	1	Q	2	3.0	2.1	0.2	Q	0.7
1990 to 1999	9	6	Q	Q	2	4.3	3.1	Q	Q	1.0
2000 to 2003	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Census Region and Division										
Northeast	175	156	15	Q	4	28.8	25.6	2.4	Q	0.7
New England	69	64	4	(*)	1	44.1	40.8	2.8	0.1	Q
Middle Atlantic	106	91	Q	Q	4	23.5	20.3	Q	Q	0.8
Midwest	24	Q	1	Q	1	8.3	7.6	0.2	Q	0.5
East North Central	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
West North Central	Q	Q	Q	Q	Q	14.4	12.9	0.5	0.1	Q
South	14	10	Q	Q	3	3.5	2.4	Q	Q	0.7
South Atlantic	13	10	Q	Q	3	4.9	3.6	Q	Q	0.9
East South Central	1	(*)	(*)	(*)	(*)	2.7	1.2	(*)	1.0	0.5
West South Central	1	Q	Q	(*)	(*)	0.5	0.1	Q	(*)	0.3
West	9	Q	Q	Q	1	Q	Q	Q	Q	Q
Mountain	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Pacific	4	2	Q	(*)	1	2.7	1.4	Q	(*)	0.5

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Table E9. Fuel Oil Consumption (Btu) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (trillion Btu)					Fuel Oil Energy Intensity (thousand Btu/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	222	194	17	Q	10	14.7	12.8	1.1	Q	0.6
Climate Zone: 30-Year Average										
Under 2,000 CDD and --										
More than 7,000 HDD	63	59	2	Q	2	25.0	23.5	0.7	Q	0.7
5,500-7,000 HDD	63	57	4	Q	2	15.6	14.1	1.0	Q	0.5
4,000-5,499 HDD	90	75	Q	Q	4	19.4	16.3	Q	Q	0.8
Fewer than 4,000 HDD	6	2	Q	Q	2	2.5	1.0	Q	Q	0.8
2,000 CDD or More and --										
Fewer than 4,000 HDD	1	Q	Q	(*)	(*)	0.5	0.2	Q	(*)	0.3
Number of Floors										
One	47	42	2	(*)	3	18.5	16.5	0.8	0.1	1.1
Two	69	64	Q	Q	1	25.3	23.6	Q	Q	0.5
Three	39	36	1	Q	Q	20.2	18.7	0.5	Q	0.6
Four to Nine	55	43	9	Q	3	13.5	10.5	2.2	Q	0.7
Ten or More	13	9	Q	Q	1	3.3	Q	Q	Q	0.3
Number of Workers (main shift)										
Fewer than 5	69	64	Q	(*)	Q	47.4	44.1	Q	0.1	Q
5 to 9	17	15	Q	(*)	Q	26.6	23.4	Q	(*)	Q
10 to 19	33	26	7	(*)	Q	32.3	25.4	6.7	0.1	0.3
20 to 49	36	33	1	(*)	Q	22.2	20.9	0.5	(*)	Q
50 to 99	27	25	1	(*)	1	12.7	11.5	0.7	0.2	0.3
100 to 249	19	17	1	Q	1	8.9	7.8	0.3	Q	0.6
250 or More	22	14	Q	Q	4	3.5	2.3	Q	Q	0.6
Weekly Operating Hours										
Fewer than 40	15	15	Q	(*)	Q	26.6	26.4	0.1	(*)	Q
40 to 48	58	57	(*)	(*)	1	28.9	28.4	0.2	(*)	0.3
49 to 60	32	28	Q	(*)	2	10.5	9.4	Q	0.1	0.8
61 to 84	40	37	Q	Q	1	19.1	17.6	Q	Q	0.3
85 to 167	18	16	1	Q	1	12.1	10.9	0.6	Q	0.4
Open Continuously	59	40	13	Q	5	9.9	6.8	2.2	Q	0.9
Ownership and Occupancy										
Nongovernment Owned.....	154	132	13	Q	7	13.5	11.6	1.2	Q	0.6
Owner Occupied	81	69	8	(*)	4	13.4	11.4	1.3	(*)	0.7
Nonowner Occupied	72	63	Q	Q	3	13.8	12.0	Q	Q	0.6
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	69	62	4	Q	2	18.1	16.3	1.0	Q	0.6
Federal	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
State	23	21	Q	Q	Q	24.0	Q	Q	Q	0.9
Local	39	35	3	Q	1	16.1	14.4	1.1	Q	0.4
Vacancy Status										
Completely Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	30	27	2	Q	1	6.8	6.1	0.5	Q	0.2
Not At All Vacant	191	166	15	Q	9	17.9	15.5	1.4	Q	0.8
Number of Establishments										
One	183	161	14	Q	7	19.8	17.5	1.5	Q	0.7
2 to 5	28	23	3	(*)	2	10.4	8.6	1.1	(*)	0.7
6 to 10	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
11 to 20	Q	Q	Q	Q	Q	2.3	Q	Q	(*)	Q
More than 20	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

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Table E9. Fuel Oil Consumption (Btu) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (trillion Btu)					Fuel Oil Energy Intensity (thousand Btu/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	222	194	17	Q	10	14.7	12.8	1.1	Q	0.6
Predominant Exterior Wall Material										
Brick, Stone or Stucco	144	126	13	Q	4	18.7	16.3	1.7	Q	0.6
Concrete (Block or Poured)	24	18	Q	Q	4	9.6	7.3	Q	Q	1.4
Concrete Panels	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Siding or Shingles	41	39	Q	(*)	Q	54.4	51.8	Q	(*)	Q
Metal Panels	8	8	Q	Q	(*)	7.1	6.6	Q	Q	0.4
Window Glass	(*)	Q	Q	(*)	(*)	0.3	Q	Q	(*)	0.3
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant Roof Material										
Built-Up	37	30	Q	Q	2	6.6	5.5	Q	Q	0.4
Shingles (Not Wood)	63	58	3	(*)	Q	34.7	31.7	1.9	0.1	Q
Metal Surfacing	21	20	Q	Q	Q	16.2	15.0	Q	Q	0.8
Synthetic or Rubber	46	39	3	Q	4	9.9	8.4	0.7	Q	0.8
Slate or Tile	12	11	Q	(*)	(*)	25.5	23.2	Q	0.5	0.4
Wooden Materials	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Concrete	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Renovations in Buildings Constructed Before 1980 (more than one may apply)										
Any Type of Renovation										
Since 1980	105	95	5	Q	4	18.6	16.8	0.9	Q	0.7
Addition or Annex	Q	Q	Q	Q	Q	19.3	18.1	0.4	Q	0.6
Reduction In Floorspace	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cosmetic Improvements	77	69	5	Q	3	18.3	16.4	1.2	Q	0.7
Wall or Roof Replacement	54	47	4	Q	2	17.4	15.2	1.4	Q	0.6
Interior Wall										
Re-Configuration	44	40	3	Q	2	14.4	12.9	0.9	Q	0.6
HVAC Equipment Upgrade.....	34	28	3	Q	2	9.7	8.1	0.7	Q	0.7
Lighting Upgrade	53	48	3	Q	2	15.2	13.7	0.8	Q	0.6
Window Replacement	50	46	3	Q	1	21.6	19.8	1.2	Q	0.4
Plumbing System Upgrade	45	40	3	Q	1	16.0	14.3	0.9	Q	0.5
Insulation Upgrade	21	18	2	(*)	1	15.1	12.7	1.4	0.2	0.7
Other Renovation	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No Renovations Since 1980.....	94	82	Q	Q	Q	29.2	25.5	Q	Q	Q
Building Newer than 1980	23	17	Q	Q	5	3.7	2.7	Q	Q	0.7
Energy Sources (more than one may apply)										
Electricity										
Natural Gas	99	82	10	Q	6	9.5	7.9	0.9	Q	0.6
Fuel Oil	222	194	17	Q	10	14.7	12.8	1.1	Q	0.6
District Heat	1	Q	Q	Q	1	0.8	Q	Q	Q	0.5
District Chilled Water	2	Q	Q	Q	Q	1.7	Q	Q	Q	0.7
Propane	54	47	3	Q	2	25.1	22.2	1.5	Q	1.1
Other	Q	Q	Q	Q	Q	8.3	7.4	Q	Q	0.3
Space-Heating Energy Source										
Fuel Oil	212	194	14	Q	3	35.4	32.4	2.3	Q	0.4
Fuel Oil Main	197	181	13	Q	2	51.7	47.5	3.4	Q	0.4
Fuel Oil Secondary	16	14	1	Q	1	7.1	6.2	0.3	Q	0.5
Other Excluding Fuel Oil	7	(*)	Q	Q	6	0.8	(*)	Q	Q	0.7
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

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Table E9. Fuel Oil Consumption (Btu) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (trillion Btu)					Fuel Oil Energy Intensity (thousand Btu/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	222	194	17	Q	10	14.7	12.8	1.1	Q	0.6
Primary Space-Heating Energy Source										
Electricity	3	Q	Q	(*)	1	1.1	Q	Q	(*)	0.5
Natural Gas	15	10	1	Q	4	2.4	1.6	0.1	Q	0.7
Fuel Oil	197	181	13	Q	2	51.7	47.5	3.4	Q	0.4
District Heat	1	Q	Q	Q	1	0.7	Q	Q	Q	0.5
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Source										
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	175	151	14	Q	8	12.6	10.9	1.0	Q	0.6
Buildings without Cooling	46	42	Q	(*)	Q	36.6	33.4	Q	(*)	Q
Water-Heating Energy Source										
Fuel Oil	109	89	17	Q	2	58.0	47.1	9.2	Q	1.1
Other Excluding Fuel Oil	104	96	(*)	Q	7	8.2	7.6	(*)	Q	0.5
Bldgs without Water Heating	10	9	(*)	(*)	Q	16.0	14.8	(*)	(*)	Q
Cooking Energy Source										
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	114	97	12	(*)	5	12.9	10.9	1.3	(*)	0.6
Buildings without Cooking	103	94	5	(*)	4	16.7	15.2	0.8	(*)	0.6
Energy End Uses (more than one may apply)										
Buildings with Space Heating	219	194	15	Q	9	14.6	13.0	1.0	Q	0.6
Buildings with Cooling	176	151	14	Q	9	12.7	10.9	1.0	Q	0.6
Buildings with Water Heating	213	185	17	Q	9	14.6	12.7	1.2	Q	0.6
Buildings with Cooking	119	100	12	Q	6	13.3	11.1	1.4	Q	0.6
Buildings with Manufacturing	7	Q	Q	(*)	Q	6.7	4.5	Q	0.1	Q
Buildings with Electricity Generation	31	21	3	Q	7	3.2	2.1	0.3	Q	0.8
Percent of Floorspace Heated										
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	13	11	Q	(*)	Q	10.4	8.9	Q	(*)	Q
51 to 99	26	22	Q	Q	1	10.4	8.9	Q	Q	0.4
100	180	160	11	Q	7	16.0	14.3	1.0	Q	0.6
Heating Equipment (more than one may apply)										
Heat Pumps	6	4	Q	Q	1	2.5	1.8	Q	Q	0.5
Packaged Heat Pumps	3	Q	(*)	Q	1	Q	Q	Q	Q	Q
Split-System Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Individual Room Heat Pumps ..	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Furnaces	50	47	1	(*)	Q	15.0	14.0	0.3	(*)	Q
Individual Space Heaters	31	27	2	(*)	2	9.7	8.3	0.8	(*)	0.6
District Heat	1	Q	Q	Q	1	0.7	Q	Q	Q	0.5
Boilers	171	152	13	Q	5	19.2	17.0	1.5	Q	0.6
Packaged Heating Units	17	13	1	Q	3	4.4	3.3	0.3	Q	0.8
Other	5	4	Q	Q	Q	4.6	3.9	Q	Q	Q
Water Heating Equipment										
Centralized System	161	139	16	Q	6	19.2	16.5	1.9	Q	0.7
Distributed System	31	29	Q	(*)	Q	14.2	13.5	Q	(*)	Q
Combination of Centralized and Distributed System	20	16	1	Q	2	5.1	4.1	0.3	Q	0.5

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Table E9. Fuel Oil Consumption (Btu) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (trillion Btu)					Fuel Oil Energy Intensity (thousand Btu/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	222	194	17	Q	10	14.7	12.8	1.1	Q	0.6
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation....	119	100	12	Q	6	13.3	11.1	1.4	Q	0.6
Activities with Large Amounts of Hot Water	95	76	13	Q	6	12.4	9.9	1.7	Q	0.7
Separate Computer Area	96	79	11	Q	6	9.4	7.7	1.1	Q	0.5
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System.....	35	28	3	Q	4	4.5	3.5	0.3	Q	0.6
Economizer Cycle	42	33	3	Q	5	5.3	4.2	0.4	Q	0.6
HVAC Maintenance	196	172	14	Q	9	13.9	12.1	1.0	Q	0.6
Energy Management and Control System (EMCS)	31	24	Q	Q	4	4.8	3.8	Q	Q	0.6
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)										
Heating	162	144	10	Q	6	14.9	13.2	1.0	Q	0.6
Cooling	135	117	12	Q	6	12.9	11.1	1.1	Q	0.5
Lighting	156	147	4	Q	4	17.9	16.8	0.5	Q	0.5
Office Equipment	92	87	Q	Q	3	27.8	26.2	Q	Q	0.8
Annual Consumption (gallons)										
1,000 or Less	13	10	Q	Q	2	1.5	1.2	Q	Q	0.3
1,001 to 5,000	44	39	Q	Q	3	17.1	14.9	Q	Q	1.2
5,001 to 10,000	28	24	Q	(*)	Q	31.0	26.6	Q	0.1	1.4
10,001 to 25,000	30	29	(*)	(*)	1	33.4	31.8	0.5	0.1	1.0
Over 25,000	106	92	11	Q	2	50.1	43.3	5.3	Q	1.0

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. In the 1999 CBECS, total fuel oil consumption in malls was not statistically significant.

(*)=Value rounds to zero in the units displayed.

Q=Data withheld because fewer than 20 buildings were sampled for any cell, or because the Relative Standard Error (RSE) was greater than 50 percent for a cell in the "Total" column.

Notes: • Due to rounding, data may not sum to totals. • HVAC = Heating, Ventilation, and Air Conditioning.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, C, and E of the 2003 Commercial Buildings Energy Consumption Survey.

Released: September, 2008

Table E10. Fuel Oil Consumption (gallons) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (million gallons)					Fuel Oil Energy Intensity (gallons/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	1,602	1,397	125	Q	69	0.11	0.09	0.01	Q	(*)
Building Floorspace (Square Feet)										
1,001 to 5,000	249	228	Q	(*)	Q	0.41	0.38	Q	(*)	Q
5,001 to 10,000	261	237	Q	1	Q	0.37	0.33	Q	(*)	Q
10,001 to 25,000	196	177	10	(*)	Q	0.20	0.18	0.01	(*)	Q
25,001 to 50,000	117	112	Q	(*)	4	0.14	0.14	Q	(*)	(*)
50,001 to 100,000	188	167	9	Q	7	0.11	0.10	0.01	Q	(*)
100,001 to 200,000	263	246	Q	Q	10	0.09	0.08	Q	Q	(*)
200,001 to 500,000	258	183	Q	Q	11	0.08	0.05	0.02	Q	(*)
Over 500,000	69	Q	Q	Q	14	0.02	Q	Q	Q	(*)
Principal Building Activity										
Education	342	322	11	Q	Q	0.18	0.17	0.01	Q	(*)
Food Sales	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food Service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Health Care	76	45	11	Q	18	0.04	0.02	0.01	Q	0.01
Inpatient	65	35	11	Q	17	0.04	0.02	0.01	Q	0.01
Outpatient	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging	255	177	Q	3	5	0.12	0.08	Q	(*)	(*)
Retail (Other Than Mall).....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Office	126	112	Q	Q	11	0.03	0.03	Q	Q	(*)
Public Assembly	208	201	Q	(*)	Q	0.22	0.21	Q	(*)	Q
Public Order and Safety	57	41	Q	(*)	Q	Q	Q	Q	Q	Q
Religious Worship	130	129	Q	(*)	Q	0.29	0.28	Q	(*)	Q
Service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Warehouse and Storage	66	Q	Q	1	Q	0.05	0.05	Q	(*)	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed										
Before 1920	273	253	Q	2	Q	0.28	0.26	Q	(*)	Q
1920 to 1945	390	320	65	Q	2	0.20	0.16	0.03	Q	(*)
1946 to 1959	347	323	Q	1	Q	0.17	0.16	Q	(*)	Q
1960 to 1969	Q	Q	Q	Q	Q	0.16	0.14	0.01	Q	(*)
1970 to 1979	161	137	9	Q	14	0.07	0.06	(*)	Q	0.01
1980 to 1989	66	46	5	Q	15	0.02	0.02	(*)	Q	(*)
1990 to 1999	65	46	Q	Q	15	0.03	0.02	Q	Q	0.01
2000 to 2003	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Census Region and Division										
Northeast	1,265	1,122	106	Q	30	0.21	0.18	0.02	Q	(*)
New England	501	464	32	1	4	0.32	0.29	0.02	(*)	Q
Middle Atlantic	764	658	Q	Q	26	0.17	0.15	Q	Q	0.01
Midwest	170	Q	4	Q	10	0.06	0.06	(*)	Q	(*)
East North Central	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
West North Central	Q	Q	Q	Q	Q	0.10	0.09	(*)	(*)	Q
South	104	73	Q	Q	22	0.03	0.02	Q	Q	0.01
South Atlantic	93	69	Q	Q	18	0.04	0.03	Q	Q	0.01
East South Central	7	3	(*)	2	1	0.02	0.01	(*)	0.01	(*)
West South Central	4	Q	Q	(*)	3	(*)	(*)	Q	(*)	(*)
West	63	Q	Q	Q	7	Q	Q	Q	Q	Q
Mountain	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Pacific	29	15	Q	(*)	5	0.02	0.01	Q	(*)	(*)

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Table E10. Fuel Oil Consumption (gallons) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (million gallons)					Fuel Oil Energy Intensity (gallons/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	1,602	1,397	125	Q	69	0.11	0.09	0.01	Q	(*)
Climate Zone: 30-Year Average										
Under 2,000 CDD and --										
More than 7,000 HDD	451	424	13	Q	13	0.18	0.17	0.01	Q	0.01
5,500-7,000 HDD	455	412	29	Q	14	0.11	0.10	0.01	Q	(*)
4,000-5,499 HDD	648	542	Q	Q	25	0.14	0.12	Q	Q	0.01
Fewer than 4,000 HDD	42	17	Q	Q	13	0.02	0.01	Q	Q	0.01
2,000 CDD or More and --										
Fewer than 4,000 HDD	6	Q	Q	(*)	4	(*)	(*)	Q	(*)	(*)
Number of Floors										
One	335	300	15	1	19	0.13	0.12	0.01	(*)	0.01
Two	496	463	Q	Q	11	0.18	0.17	Q	Q	(*)
Three	279	258	7	Q	Q	0.15	0.13	(*)	Q	(*)
Four to Nine	400	310	66	Q	22	0.10	0.08	0.02	Q	0.01
Ten or More	93	66	Q	Q	8	0.02	Q	Q	Q	(*)
Number of Workers (main shift)										
Fewer than 5	498	464	Q	1	Q	0.34	0.32	Q	(*)	Q
5 to 9	120	106	Q	(*)	Q	0.19	0.17	Q	(*)	Q
10 to 19	239	187	49	(*)	Q	0.23	0.18	0.05	(*)	(*)
20 to 49	257	241	6	(*)	Q	0.16	0.15	(*)	(*)	Q
50 to 99	195	177	10	3	5	0.09	0.08	(*)	(*)	(*)
100 to 249	138	120	4	Q	9	0.06	0.06	(*)	Q	(*)
250 or More	156	101	Q	Q	27	0.03	0.02	Q	Q	(*)
Weekly Operating Hours										
Fewer than 40	110	109	Q	(*)	Q	0.19	0.19	(*)	(*)	Q
40 to 48	416	408	3	(*)	5	0.21	0.20	(*)	(*)	(*)
49 to 60	228	205	Q	1	17	0.08	0.07	Q	(*)	0.01
61 to 84	288	266	Q	Q	5	0.14	0.13	Q	Q	(*)
85 to 167	132	118	7	Q	4	0.09	0.08	(*)	Q	(*)
Open Continuously	428	291	94	Q	37	0.07	0.05	0.02	Q	0.01
Ownership and Occupancy										
Nongovernment Owned.....	1,107	952	97	Q	52	0.10	0.08	0.01	Q	(*)
Owner Occupied	588	499	58	1	30	0.10	0.08	0.01	(*)	(*)
Nonowner Occupied	520	453	Q	Q	23	0.10	0.09	Q	Q	(*)
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	495	445	28	Q	16	0.13	0.12	0.01	Q	(*)
Federal	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
State	166	152	Q	Q	Q	0.17	Q	Q	Q	0.01
Local	284	253	20	Q	8	0.12	0.10	0.01	Q	(*)
Vacancy Status										
Completely Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	213	192	15	Q	6	0.05	0.04	(*)	Q	(*)
Not At All Vacant	1,380	1,197	110	Q	62	0.13	0.11	0.01	Q	0.01
Number of Establishments										
One	1,318	1,160	99	Q	50	0.14	0.13	0.01	Q	0.01
2 to 5	198	164	21	(*)	13	0.07	0.06	0.01	(*)	0.01
6 to 10	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
11 to 20	Q	Q	Q	Q	Q	0.02	Q	Q	(*)	Q
More than 20	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

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Table E10. Fuel Oil Consumption (gallons) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (million gallons)					Fuel Oil Energy Intensity (gallons/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	1,602	1,397	125	Q	69	0.11	0.09	0.01	Q	(*)
Predominant Exterior Wall Material										
Brick, Stone or Stucco	1,041	909	94	Q	31	0.13	0.12	0.01	Q	(*)
Concrete (Block or Poured)	175	133	Q	Q	26	0.07	0.05	Q	Q	0.01
Concrete Panels	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Siding or Shingles	295	281	Q	(*)	Q	0.39	0.37	Q	(*)	Q
Metal Panels	60	55	Q	Q	3	0.05	0.05	Q	Q	(*)
Window Glass	1	Q	Q	(*)	1	(*)	Q	Q	(*)	(*)
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant Roof Material										
Built-Up	264	220	Q	Q	17	0.05	0.04	Q	Q	(*)
Shingles (Not Wood)	453	415	25	1	Q	0.25	0.23	0.01	(*)	Q
Metal Surfacing	153	141	Q	Q	Q	0.12	0.11	Q	Q	0.01
Synthetic or Rubber	335	284	24	Q	25	0.07	0.06	0.01	Q	0.01
Slate or Tile	83	76	Q	2	1	0.18	0.17	Q	(*)	(*)
Wooden Materials	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Concrete	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Renovations in Buildings Constructed Before 1980 (more than one may apply)										
Any Type of Renovation										
Since 1980	757	686	38	Q	27	0.13	0.12	0.01	Q	(*)
Addition or Annex	Q	Q	Q	Q	Q	0.14	0.13	(*)	Q	(*)
Reduction In Floorspace	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cosmetic Improvements	555	496	35	Q	21	0.13	0.12	0.01	Q	(*)
Wall or Roof Replacement	386	337	31	Q	14	0.13	0.11	0.01	Q	(*)
Interior Wall										
Re-Configuration	321	288	19	Q	13	0.10	0.09	0.01	Q	(*)
HVAC Equipment Upgrade.....	244	204	19	Q	17	0.07	0.06	0.01	Q	(*)
Lighting Upgrade	386	348	21	Q	15	0.11	0.10	0.01	Q	(*)
Window Replacement	362	332	20	Q	6	0.16	0.14	0.01	Q	(*)
Plumbing System Upgrade	321	288	19	Q	9	0.12	0.10	0.01	Q	(*)
Insulation Upgrade	151	127	14	2	7	0.11	0.09	0.01	(*)	0.01
Other Renovation	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No Renovations Since 1980.....	677	590	Q	Q	Q	0.21	0.18	Q	Q	Q
Building Newer than 1980	168	121	Q	Q	33	0.03	0.02	Q	Q	0.01
Energy Sources (more than one may apply)										
Electricity	1,601	1,396	125	Q	69	0.11	0.09	0.01	Q	(*)
Natural Gas	712	593	70	Q	44	0.07	0.06	0.01	Q	(*)
Fuel Oil	1,602	1,397	125	Q	69	0.11	0.09	0.01	Q	(*)
District Heat	10	Q	Q	Q	6	0.01	Q	Q	Q	(*)
District Chilled Water	12	Q	Q	Q	Q	0.01	Q	Q	Q	(*)
Propane	387	342	23	Q	18	0.18	0.16	0.01	Q	0.01
Other	Q	Q	Q	Q	Q	0.06	0.05	Q	Q	(*)
Space-Heating Energy Source										
Fuel Oil	1,527	1,397	100	Q	19	0.25	0.23	0.02	Q	(*)
Fuel Oil Main	1,423	1,307	94	Q	11	0.37	0.34	0.02	Q	(*)
Fuel Oil Secondary	112	98	5	Q	8	0.05	0.04	(*)	Q	(*)
Other Excluding Fuel Oil	51	(*)	Q	Q	45	0.01	(*)	Q	Q	0.01
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

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Table E10. Fuel Oil Consumption (gallons) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (million gallons)					Fuel Oil Energy Intensity (gallons/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	1,602	1,397	125	Q	69	0.11	0.09	0.01	Q	(*)
Primary Space-Heating Energy Source										
Electricity	23	Q	Q	1	11	0.01	Q	Q	(*)	(*)
Natural Gas	109	72	6	Q	31	0.02	0.01	(*)	Q	(*)
Fuel Oil	1,423	1,307	94	Q	11	0.37	0.34	0.02	Q	(*)
District Heat	7	Q	Q	Q	5	(*)	Q	Q	Q	(*)
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Source										
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	1,258	1,086	103	Q	58	0.09	0.08	0.01	Q	(*)
Buildings without Cooling	334	305	Q	(*)	Q	0.26	0.24	Q	(*)	Q
Water-Heating Energy Source										
Fuel Oil	786	638	125	Q	15	0.42	0.34	0.07	Q	0.01
Other Excluding Fuel Oil	748	695	(*)	Q	49	0.06	0.05	(*)	Q	(*)
Bldgs without Water Heating	69	64	(*)	(*)	Q	0.12	0.11	(*)	(*)	Q
Cooking Energy Source										
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	821	699	84	(*)	37	0.09	0.08	0.01	(*)	(*)
Buildings without Cooking	742	677	38	(*)	28	0.12	0.11	0.01	(*)	(*)
Energy End Uses (more than one may apply)										
Buildings with Space Heating	1,577	1,397	105	Q	65	0.11	0.09	0.01	Q	(*)
Buildings with Cooling	1,268	1,092	104	Q	61	0.09	0.08	0.01	Q	(*)
Buildings with Water Heating	1,533	1,333	125	Q	63	0.11	0.09	0.01	Q	(*)
Buildings with Cooking	860	720	87	Q	41	0.10	0.08	0.01	Q	(*)
Buildings with Manufacturing	49	Q	Q	1	Q	0.05	0.03	Q	(*)	Q
Buildings with Electricity Generation	227	151	20	Q	54	0.02	0.02	(*)	Q	0.01
Percent of Floorspace Heated										
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	94	81	Q	(*)	Q	0.07	0.06	Q	(*)	Q
51 to 99	187	160	Q	Q	8	0.08	0.06	Q	Q	(*)
100	1,297	1,157	81	Q	52	0.12	0.10	0.01	Q	(*)
Heating Equipment (more than one may apply)										
Heat Pumps	44	32	Q	Q	9	0.02	0.01	Q	Q	(*)
Packaged Heat Pumps	22	Q	1	Q	6	Q	Q	Q	Q	Q
Split-System Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Individual Room Heat Pumps ..	Q	Q	Q	Q	Q	Q	Q	Q	Q	(*)
Furnaces	360	337	7	1	Q	0.11	0.10	(*)	(*)	Q
Individual Space Heaters	225	194	18	1	13	0.07	0.06	0.01	(*)	(*)
District Heat	8	Q	Q	Q	5	(*)	Q	Q	Q	(*)
Boilers	1,236	1,093	96	Q	37	0.14	0.12	0.01	Q	(*)
Packaged Heating Units	122	91	7	Q	22	0.03	0.02	(*)	Q	0.01
Other	36	31	Q	Q	Q	0.03	0.03	Q	Q	Q
Water Heating Equipment										
Centralized System	1,162	1,003	114	Q	40	0.14	0.12	0.01	Q	(*)
Distributed System	224	212	Q	(*)	Q	0.10	0.10	Q	(*)	Q
Combination of Centralized and Distributed System	147	119	9	Q	13	0.04	0.03	(*)	Q	(*)

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Table E10. Fuel Oil Consumption (gallons) and Energy Intensities by End Use for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (million gallons)					Fuel Oil Energy Intensity (gallons/square foot)				
	Total	Space Heating	Water Heating	Cooking	Other	Total	Space Heating	Water Heating	Cooking	Other
All Buildings*	1,602	1,397	125	Q	69	0.11	0.09	0.01	Q	(*)
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation....	860	720	87	Q	41	0.10	0.08	0.01	Q	(*)
Activities with Large Amounts of Hot Water	685	546	92	Q	40	0.09	0.07	0.01	Q	0.01
Separate Computer Area	695	570	78	Q	40	0.07	0.06	0.01	Q	(*)
HVAC Conservation Features (more than one may apply)										
Variable Air-Volume System.....	254	199	19	Q	32	0.03	0.03	(*)	Q	(*)
Economizer Cycle	303	239	22	Q	37	0.04	0.03	(*)	Q	(*)
HVAC Maintenance	1,413	1,238	101	Q	62	0.10	0.09	0.01	Q	(*)
Energy Management and Control System (EMCS)	222	173	Q	Q	26	0.03	0.03	Q	Q	(*)
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)										
Heating	1,166	1,035	75	Q	47	0.11	0.10	0.01	Q	(*)
Cooling	975	841	83	Q	41	0.09	0.08	0.01	Q	(*)
Lighting	1,127	1,061	30	Q	30	0.13	0.12	(*)	Q	(*)
Office Equipment	663	625	Q	Q	19	0.20	0.19	Q	Q	0.01
Annual Consumption (gallons)										
1,000 or Less	94	74	Q	Q	17	0.01	0.01	Q	Q	(*)
1,001 to 5,000	320	279	Q	Q	22	0.12	0.11	Q	Q	0.01
5,001 to 10,000	204	175	Q	(*)	Q	0.22	0.19	Q	(*)	0.01
10,001 to 25,000	219	209	3	1	7	0.24	0.23	(*)	(*)	0.01
Over 25,000	765	660	81	Q	15	0.36	0.31	0.04	Q	0.01

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. In the 1999 CBECS, total fuel oil consumption in malls was not statistically significant.

(*)=Value rounds to zero in the units displayed.

Q=Data withheld because fewer than 20 buildings were sampled for any cell, or because the Relative Standard Error (RSE) was greater than 50 percent for a cell in the "Total" column.

Notes: • Due to rounding, data may not sum to totals. • HVAC = Heating, Ventilation, and Air Conditioning.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A, C, and E of the 2003 Commercial Buildings Energy Consumption Survey.