

Table C35. Fuel Oil Consumption and Conditional Energy Intensity by Census Region for Non-Mall Buildings, 2003

	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings*	1,265	170	104	63	6,080	2,832	4,122	2,123	0.21	0.06	0.03	Q
Building Floorspace (Square Feet)												
1,001 to 10,000	381	Q	Q	Q	757	Q	255	Q	0.50	Q	0.10	Q
10,001 to 100,000	375	63	Q	Q	1,704	643	833	351	0.22	0.10	Q	Q
Over 100,000	509	20	44	Q	3,618	1,983	3,034	1,673	0.14	0.01	0.01	Q
Principal Building Activity												
Education	282	Q	Q	Q	933	Q	Q	Q	0.30	Q	Q	Q
Health Care	Q	Q	17	7	Q	492	786	262	Q	Q	0.02	0.03
Office	105	6	14	1	1,379	714	1,235	748	0.08	0.01	0.01	0.00
All Others	837	Q	44	40	3,426	1,281	1,644	984	0.24	Q	0.03	Q
Year Constructed												
1945 or Before	555	Q	Q	Q	2,126	Q	Q	Q	0.26	Q	Q	Q
1946 to 1959	277	Q	Q	Q	1,233	343	Q	Q	0.22	Q	Q	Q
1960 to 1969	Q	Q	Q	Q	579	398	443	Q	0.34	Q	Q	Q
1970 to 1979	121	Q	25	Q	626	562	693	Q	0.19	Q	0.04	Q
1980 to 1989	45	Q	Q	5	620	Q	1,064	980	0.07	Q	Q	0.01
1990 to 2003	Q	18	Q	6	896	806	1,184	325	0.08	0.02	Q	Q
Climate Zone: 30-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	295	Q	N	Q	1,009	1,158	N	331	0.29	0.13	N	Q
5,500-7,000 HDD	398	20	N	Q	2,207	1,461	N	Q	0.18	0.01	N	Q
4,000-5,499 HDD	Q	Q	Q	Q	2,863	Q	1,392	Q	0.20	Q	Q	Q
Fewer than 4,000 HDD	N	N	29	Q	N	N	1,245	1,092	N	N	0.02	Q
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	6	Q	N	N	1,486	Q	N	N	0.00	Q
Number of Floors												
One	230	35	Q	Q	987	420	800	311	0.23	0.08	Q	Q
Two	390	Q	Q	Q	1,249	603	618	Q	0.31	Q	Q	Q
Three	234	Q	Q	Q	916	Q	Q	Q	0.26	Q	Q	Q
Four to Nine	328	Q	41	Q	1,704	1,007	887	503	0.19	Q	0.05	Q
Ten or More	Q	Q	6	1	1,224	Q	1,349	900	Q	Q	0.00	0.00
Number of Workers (main shift)												
Less than 10	436	Q	33	Q	1,221	374	376	Q	0.36	Q	0.09	Q
10 to 99	606	27	Q	Q	2,501	939	988	Q	0.24	0.03	Q	Q
100 or More	222	16	39	Q	2,358	1,520	2,758	1,681	0.09	0.01	0.01	Q
Weekly Operating Hours												
48 or fewer	441	Q	Q	Q	1,426	475	559	Q	0.31	Q	0.05	Q
49 to 84	374	Q	Q	10	1,859	915	1,526	805	0.20	Q	Q	0.01
85 to 168	450	33	45	31	2,795	1,442	2,037	1,209	0.16	0.02	0.02	Q
Ownership and Occupancy												
Nongovernment Owned												
Owner Occupied	865	Q	71	34	4,568	1,938	3,132	1,736	0.19	Q	0.02	0.02
Nonowner Occupied	517	24	39	7	2,790	1,010	1,641	650	0.19	0.02	0.02	0.01
Unoccupied	348	Q	32	Q	1,711	927	1,491	1,085	0.20	Q	0.02	Q
Government Owned												
Federal	Q	N	N	N	Q	N	N	N	Q	N	N	N
State	400	33	Q	Q	1,512	894	990	387	0.26	0.04	Q	Q
Local	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Local	245	Q	Q	Q	1,102	574	Q	Q	0.22	Q	Q	Q

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	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings*	1,265	170	104	63	6,080	2,832	4,122	2,123	0.21	0.06	0.03	Q
Vacancy Status												
Completely Vacant	Q	N	N	N	Q	N	N	N	Q	N	N	N
Mostly Vacant	Q	N	N	N	Q	N	N	N	Q	N	N	N
Partially Vacant	179	Q	16	Q	1,704	756	1,203	684	0.11	Q	0.01	Q
Not At All Vacant	1,076	156	88	60	4,283	2,077	2,919	1,439	0.25	0.08	0.03	Q
Number of Establishments												
One	1,041	Q	76	Q	3,679	1,652	2,654	1,227	0.28	0.09	0.03	Q
2 to 5	151	Q	21	Q	1,119	651	615	Q	0.13	Q	0.03	Q
6 to 10	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
11 to 20	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
More than 20	Q	Q	Q	Q	Q	Q	487	Q	Q	Q	Q	Q
Currently Unoccupied	Q	N	N	N	Q	N	N	N	Q	N	N	N
Predominant Exterior Wall Material												
Brick, Stone or Stucco	855	93	74	Q	3,688	1,425	2,035	587	0.23	0.07	0.04	Q
Concrete (Block or Poured)	Q	17	Q	Q	Q	471	814	449	Q	0.04	Q	Q
Concrete Panels	Q	Q	4	Q	Q	Q	843	Q	Q	Q	0.00	Q
Siding or Shingles	230	Q	Q	Q	496	Q	Q	Q	0.46	Q	Q	0.18
Metal Panels	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Window Glass	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
No One Major Type	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Predominant Roof Material												
Built-Up	196	17	36	Q	1,936	914	1,727	988	0.10	0.02	0.02	Q
Shingles (Not Wood)	375	Q	Q	Q	892	Q	Q	Q	0.42	Q	Q	Q
Metal Surfacing	74	Q	Q	Q	512	Q	Q	Q	0.14	Q	Q	Q
Synthetic or Rubber	240	38	Q	Q	1,745	1,068	1,172	701	0.14	0.04	Q	Q
Slate or Tile	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Wooden Materials	Q	Q	Q	N	Q	Q	Q	N	Q	0.00	Q	N
Concrete	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.00	0.00
No One Major Type	Q	Q	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	598	Q	52	29	2,711	1,013	1,361	567	0.22	Q	0.04	0.05
Addition or Annex	Q	Q	25	Q	Q	540	760	Q	0.30	0.04	0.03	Q
Reduction In Floorspace	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cosmetic Improvements	432	Q	39	Q	2,089	832	850	430	0.21	Q	0.05	Q
Wall or Roof Replacement	333	11	22	Q	1,581	541	665	Q	0.21	0.02	0.03	Q
Interior Wall												
Re-Configuration	277	Q	Q	Q	1,305	651	740	392	0.21	Q	0.03	Q
HVAC Equipment Upgrade	197	Q	33	Q	1,482	709	909	405	0.13	Q	0.04	Q
Lighting Upgrade	347	Q	22	Q	1,750	694	653	432	0.20	Q	0.03	Q
Window Replacement	337	6	Q	Q	1,520	360	Q	Q	0.22	0.02	Q	Q
Plumbing System Upgrade	293	Q	20	Q	1,517	449	497	Q	0.19	Q	0.04	Q
Insulation Upgrade	137	Q	Q	Q	758	Q	Q	Q	0.18	Q	Q	Q
Other Renovation	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.05	Q
No Renovations Since 1980	553	Q	Q	Q	1,853	598	514	Q	0.30	Q	Q	Q
Building Newer than 1980	114	20	23	12	1,516	1,221	2,248	1,305	0.08	0.02	0.01	0.01

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	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings*	1,265	170	104	63	6,080	2,832	4,122	2,123	0.21	0.06	0.03	Q
Energy Sources (more than one may apply)												
Electricity	1,265	169	104	63	6,080	2,817	4,122	2,123	0.21	0.06	0.03	0.03
Natural Gas	629	26	47	Q	3,714	2,123	2,962	1,584	0.17	0.01	0.02	Q
Fuel Oil	1,265	170	104	63	6,080	2,832	4,122	2,123	0.21	0.06	0.03	Q
District Heat	Q	Q	2	Q	731	314	476	Q	Q	Q	Q	Q
District Chilled Water	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Propane	304	Q	Q	Q	1,014	Q	Q	Q	0.30	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Space-Heating Energy Sources												
Fuel Oil	1,237	162	79	Q	3,927	916	897	Q	0.31	Q	0.09	Q
Fuel Oil Main	1,195	Q	Q	Q	3,250	Q	Q	Q	0.37	Q	Q	Q
Fuel Oil Secondary	50	31	25	Q	699	687	665	Q	0.07	0.04	0.04	Q
Other Excluding Fuel Oil	Q	8	21	6	2,103	1,916	3,137	1,798	Q	0.00	0.01	0.00
Buildings without Heating	Q	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q
Primary Space-Heating Energy Source												
Electricity	Q	Q	8	Q	Q	563	1,688	531	Q	Q	0.00	0.01
Natural Gas	49	22	31	Q	1,730	1,671	1,630	1,226	0.03	0.01	0.02	0.01
Fuel Oil	1,195	Q	Q	Q	3,250	Q	Q	Q	0.37	Q	Q	Q
District Heat	Q	Q	1	Q	Q	Q	433	Q	Q	Q	Q	Q
Propane	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
Cooling Energy Sources												
Fuel Oil	Q	N	N	N	Q	N	N	N	Q	N	N	N
Other Excluding Fuel Oil	996	127	101	35	5,070	2,670	4,093	2,027	0.20	0.05	0.02	0.02
Buildings without Cooling	259	Q	Q	Q	979	Q	Q	Q	0.26	Q	Q	Q
Water-Heating Energy Sources												
Fuel Oil	721	Q	Q	Q	1,542	Q	Q	Q	0.47	Q	Q	Q
Other Excluding Fuel Oil	508	Q	70	31	4,216	2,607	3,826	2,030	0.12	Q	0.02	0.02
Buildings without Water Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooking Energy Sources												
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.00
Other Excluding Fuel Oil	682	64	52	Q	3,244	1,699	2,777	1,138	0.21	0.04	0.02	Q
Buildings without Cooking	558	Q	43	Q	2,776	1,111	1,315	968	0.20	Q	0.03	Q
Energy End Uses (more than one may apply)												
Buildings with Space Heating	1,253	170	100	Q	6,030	2,832	4,034	2,045	0.21	0.06	0.02	Q
Buildings with Cooling	1,005	127	101	35	5,101	2,670	4,093	2,027	0.20	0.05	0.02	0.02
Buildings with Water Heating	1,228	Q	98	49	5,758	2,699	4,030	2,072	0.21	0.06	0.02	0.02
Buildings with Cooking	707	69	60	Q	3,304	1,721	2,807	1,155	0.21	0.04	0.02	Q
Buildings with Manufacturing	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Buildings with Electricity Generation	160	Q	38	8	2,590	2,129	3,368	1,780	0.06	Q	0.01	0.00

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	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings*	1,265	170	104	63	6,080	2,832	4,122	2,123	0.21	0.06	0.03	Q
Percent of Floorspace Heated												
Not Heated	Q	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q
1 to 50	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
51 to 99	150	Q	23	Q	644	Q	830	748	0.23	Q	0.03	Q
100	1,019	Q	75	Q	4,671	2,422	2,987	1,129	0.22	0.06	0.02	Q
Heating Equipment (more than one may apply)												
Heat Pumps	Q	Q	9	Q	Q	Q	1,100	510	Q	Q	0.01	Q
Packaged Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Split-System Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Individual Room Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Furnaces	300	24	Q	Q	1,352	747	973	Q	0.22	0.03	Q	Q
Individual Space Heaters	174	Q	23	Q	1,245	876	846	Q	0.14	Q	0.03	Q
District Heat	Q	Q	2	Q	624	Q	451	Q	Q	Q	Q	Q
Boilers	981	Q	74	Q	3,833	1,775	1,904	1,418	0.26	Q	0.04	Q
Packaged Heating Units	87	10	Q	Q	945	740	1,563	614	0.09	0.01	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Water Heating Equipment												
Centralized System	916	Q	Q	Q	3,627	1,724	2,222	838	0.25	Q	Q	Q
Distributed System	208	Q	Q	Q	1,182	Q	588	Q	0.18	Q	0.02	Q
Combination of Centralized and Distributed System	105	Q	17	8	949	755	1,220	1,041	0.11	Q	0.01	0.01
Energy-Related Space Functions (more than one may apply)												
Commercial Food Preparation	707	69	60	Q	3,304	1,721	2,807	1,155	0.21	0.04	0.02	Q
Activities with Large Amounts of Hot Water	574	40	47	Q	2,577	1,652	2,380	1,081	0.22	0.02	0.02	Q
Separate Computer Area	560	41	59	35	3,623	1,957	2,916	1,756	0.15	0.02	0.02	Q
HVAC Conservation Features (more than one may apply)												
Variable Air-Volume System	174	27	45	7	2,243	1,823	2,394	1,367	0.08	0.02	0.02	0.01
Economizer Cycle	232	19	48	4	2,238	1,794	2,378	1,454	0.10	0.01	0.02	0.00
HVAC Maintenance	1,156	110	98	49	5,602	2,638	3,898	2,015	0.21	0.04	0.03	Q
Energy Management and Control System (EMCS)	156	13	39	Q	1,798	1,395	1,996	1,173	0.09	0.01	0.02	Q
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a												
Heating	952	91	82	Q	4,569	1,898	2,827	1,568	0.21	0.05	0.03	Q
Cooling	828	44	84	Q	4,138	1,758	2,968	1,625	0.20	0.03	0.03	Q
Lighting	871	Q	Q	Q	3,560	1,683	2,393	1,106	0.24	Q	Q	Q
Office Equipment	564	Q	Q	Q	1,828	617	578	Q	0.31	Q	Q	Q

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	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings*	1,265	170	104	63	6,080	2,832	4,122	2,123	0.21	0.06	0.03	Q
Annual Consumption (gallons)												
1,000 or Less	56	15	16	7	2,097	1,955	3,017	1,556	0.03	0.01	0.01	0.00
1,001 to 5,000	252	Q	Q	Q	1,310	450	433	Q	0.19	0.07	Q	Q
5,001 to 10,000	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
10,001 to 25,000	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Over 25,000	691	Q	Q	Q	1,763	Q	Q	Q	0.39	Q	Q	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/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, total fuel oil consumption in malls was not statistically significant.

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 fuel oil.

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.