

Table C35. Fuel oil consumption and conditional energy intensity by Census region, 2012

	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	652	108	167.0	48	6,079	3,935	7,051	3,135	0.11	0.03	0.02	0.02
Building floorspace (square feet)												
1,001 to 10,000	160	23	32.0	Q	589	164	317	Q	0.27	0.14	0.10	Q
10,001 to 100,000	296	53	61.0	8	2,157	1,084	1,583	612	0.14	0.05	0.04	0.01
Over 100,000	196	31	74.0	28	3,334	2,688	5,151	2,429	0.06	0.01	0.01	0.01
Principal building activity												
Education	143	12	47.0	Q	957	544	500	Q	0.15	0.02	0.09	Q
Health care	107	10	18.0	7	718	592	992	474	0.15	0.02	0.02	0.02
Office	93	8	20.0	11	1,666	901	1,850	911	0.06	0.01	0.01	0.01
All others	309	77	81.0	27	2,738	1,899	3,709	1,566	0.11	0.04	0.02	0.02
Year constructed												
Before 1945	196	5	16.0	Q	1,530	352	589	Q	0.13	0.02	0.03	Q
1946 to 1979	299	31	51.0	15	2,296	1,355	1,942	958	0.13	0.02	0.03	0.02
1980 to 1999	122	26	45.0	19	1,620	1,232	2,741	1,413	0.08	0.02	0.02	0.01
2000 to 2012	35	Q	55.0	Q	633	997	1,779	689	0.06	Q	0.03	0.01
Climate region¹												
Very cold/Cold	478	91	N	23	3,495	3,505	N	1,008	0.14	0.03	N	0.02
Mixed-humid	173	Q	124.0	N	2,584	430	4,273	N	0.07	Q	0.03	N
Mixed-dry/Hot-dry	N	N	Q	13	N	N	Q	1,344	N	N	Q	0.01
Hot-humid	N	N	39.0	Q	N	N	2,516	Q	N	N	0.02	Q
Marine	N	N	N	8	N	N	N	703	N	N	N	0.01
Number of floors												
One	146	61	83.0	16	1,025	762	1,904	447	0.14	0.08	0.04	0.04
Two	177	17	31.0	8	1,088	808	907	572	0.16	0.02	0.03	0.01
Three	152	Q	7.0	2	868	494	577	151	0.17	Q	0.01	0.01
Four to nine	142	15	34.0	16	1,768	1,265	2,162	1,051	0.08	0.01	0.02	0.02
Ten or more	35	8	12.0	Q	1,329	607	1,500	913	0.03	0.01	0.01	Q
Number of workers (main shift)												
Fewer than 10	182	61	38.0	Q	980	522	624	Q	0.19	0.12	0.06	Q
10 to 99	263	20	65.0	11	1,834	1,043	1,957	892	0.14	0.02	0.03	0.01
100 or more	206	27	64.0	27	3,265	2,370	4,470	2,163	0.06	0.01	0.01	0.01
Weekly operating hours												
Fewer than 48	192	16	53.0	3	1,409	682	756	359	0.14	0.02	0.07	0.01
49 to 84	223	30	51.0	21	2,251	1,316	2,356	1,090	0.10	0.02	0.02	0.02
85 to 167	43	10	7.0	Q	487	573	597	Q	0.09	0.02	0.01	Q
Open continuously	194	51	56.0	20	1,932	1,364	3,342	1,475	0.10	0.04	0.02	0.01
Ownership and occupancy												
Nongovernment owned	464	63	99.0	37	4,182	2,568	4,841	2,467	0.11	0.02	0.02	0.02
Owner occupied	306	34	48.0	23	1,801	1,368	2,159	980	0.17	0.02	0.02	0.02
Leased to tenant(s)	110	18	36.0	8	1,532	643	1,760	815	0.07	0.03	0.02	0.01
Owner occupied and leased	48	10	15.0	7	829	519	908	672	0.06	0.02	0.02	0.01
Unoccupied	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Government owned	188	Q	68.0	11	1,897	1,367	2,210	668	0.10	Q	0.03	0.02
Federal	Q	Q	6.0	Q	Q	Q	661	Q	Q	Q	0.01	Q
State	Q	5	Q	Q	375	479	333	Q	Q	0.01	Q	Q
Local	155	Q	53.0	5	1,285	788	1,216	371	0.12	Q	0.04	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	652	108	167.0	48	6,079	3,935	7,051	3,135	0.11	0.03	0.02	0.02
Party responsible for operation and maintenance of energy systems												
Building owner	591	99	145.0	44	5,509	3,574	6,223	2,799	0.11	0.03	0.02	0.02
Business owner or tenant	42	Q	18.0	Q	374	Q	590	Q	0.11	Q	0.03	Q
Property management	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
Provider of direct input on energy-related equipment purchases												
Building owner	603	102	146.0	44	5,611	3,575	6,241	2,865	0.11	0.03	0.02	0.02
Business owner or tenant	Q	Q	12.0	Q	Q	Q	493	Q	Q	Q	0.02	Q
Property management	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
Number of establishments												
One	519	55	113.0	29	3,393	2,426	4,063	1,652	0.15	0.02	0.03	0.02
2 to 5	77	Q	40.0	15	1,567	956	1,592	829	0.05	0.05	0.03	0.02
6 to 10	Q	Q	Q	Q	300	Q	242	Q	0.10	Q	0.01	Q
11 to 20	Q	Q	3.0	Q	Q	Q	409	Q	Q	Q	0.01	Q
More than 20	Q	Q	7.0	2	567	Q	731	442	Q	Q	0.01	0.01
Currently unoccupied	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Predominant exterior wall material												
Brick, stone, or stucco	301	22	92.0	16	2,913	1,698	3,265	922	0.10	0.01	0.03	0.02
Concrete (block or poured)	144	16	27.0	16	1,211	699	1,530	1,022	0.12	0.02	0.02	0.02
Concrete panels	15	9	19.0	9	326	788	1,291	610	0.04	0.01	0.01	0.02
Siding or shingles	126	Q	Q	Q	637	Q	Q	Q	0.20	Q	Q	Q
Metal panels	Q	35	20.0	Q	397	313	439	Q	0.11	0.11	0.04	Q
Window glass	Q	Q	3.0	Q	Q	Q	269	Q	Q	Q	0.01	Q
Other	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
Predominant roof material												
Metal surfacing	88	37	40.0	Q	526	641	752	Q	0.17	0.06	0.05	Q
Synthetic or rubber	186	Q	33.0	24	2,607	1,624	2,379	1,370	0.07	Q	0.01	0.02
Built-up	162	17	38.0	13	1,590	1,102	2,173	915	0.10	0.02	0.02	0.01
Slate or tile shingles	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Wooden materials (including shingles)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Asphalt, fiberglass, or other shingles	147	6	38.0	4	796	386	1,076	311	0.19	0.02	0.03	0.01
Concrete	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Roof characteristics												
Roof tilt												
Flat	345	40	79.0	33	4,315	2,801	4,919	2,345	0.08	0.01	0.02	0.01
Shallow pitch	115	Q	71.0	12	860	805	1,586	641	0.13	0.06	0.04	0.02
Steeper pitch	192	18	17.0	Q	904	330	546	Q	0.21	0.06	0.03	Q
Cool roof	146	26	45.0	20	1,584	1,166	2,306	1,033	0.09	0.02	0.02	0.02

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All buildings	652	108	167.0	48	6,079	3,935	7,051	3,135	0.11	0.03	0.02	0.02
Renovations in buildings constructed before 2008 (more than one may apply)												
Any type of renovation	401	62	86.0	35	4,012	2,310	4,220	2,004	0.10	0.03	0.02	0.02
Addition or annex	169	Q	30.0	12	1,309	1,094	1,494	732	0.13	Q	0.02	0.02
Reduction in floorspace	Q	Q	7.0	Q	Q	Q	246	Q	Q	Q	0.03	Q
Roof replacement	286	52	44.0	16	2,543	1,665	2,125	1,041	0.11	0.03	0.02	0.02
Exterior wall replacement	69	4	5.0	Q	499	346	510	Q	0.14	0.01	0.01	Q
Interior wall reconfiguration	190	15	57.0	20	2,197	1,420	2,504	1,499	0.09	0.01	0.02	0.01
Window replacement	210	9	28.0	Q	1,627	634	1,253	726	0.13	0.01	0.02	0.01
HVAC equipment upgrade	252	20	56.0	22	2,964	1,563	2,776	1,507	0.09	0.01	0.02	0.01
Lighting upgrade	271	28	58.0	21	2,731	1,553	2,881	1,467	0.10	0.02	0.02	0.01
Electrical upgrade	205	14	42.0	16	1,801	1,073	1,723	990	0.11	0.01	0.02	0.02
Plumbing system upgrade	172	Q	28.0	12	1,587	838	1,598	889	0.11	Q	0.02	0.01
Insulation upgrade	61	8	19.0	8	702	625	633	551	0.09	0.01	0.03	0.02
Fire, safety, or security upgrade	204	12	47.0	21	2,169	1,242	2,216	1,148	0.09	0.01	0.02	0.02
Structural upgrade	42	3	16.0	Q	366	293	563	514	0.11	0.01	0.03	0.01
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No renovations	235	41	57.0	11	1,801	1,411	2,419	891	0.13	0.03	0.02	0.01
Buildings constructed 2008 or later	Q	Q	Q	Q	Q	Q	413	Q	Q	Q	0.06	Q
Energy sources (more than one may apply)												
Electricity	652	108	167.0	48	6,079	3,935	7,051	3,135	0.11	0.03	0.02	0.02
Natural gas	161	36	68.0	34	3,508	3,071	4,455	2,629	0.05	0.01	0.02	0.01
Fuel oil	652	108	167.0	48	6,079	3,935	7,051	3,135	0.11	0.03	0.02	0.02
District heat	12	9	17.0	9	966	428	1,198	517	0.01	0.02	0.01	0.02
District chilled water	5	Q	11.0	Q	279	352	1,084	Q	0.02	Q	0.01	0.02
Propane	229	Q	40.0	11	1,008	725	845	502	0.23	Q	0.05	0.02
Other	40	Q	Q	4	367	Q	329	211	0.11	Q	Q	0.02
Space-heating energy sources												
Fuel oil	595	68	80.0	Q	2,851	667	765	Q	0.21	0.10	0.10	Q
Fuel oil main	569	Q	74.0	Q	1,988	Q	299	Q	0.29	Q	0.25	Q
Fuel oil secondary	26	7	5.0	Q	863	436	466	Q	0.03	0.02	0.01	Q
Other excluding fuel oil	52	40	83.0	33	3,189	3,214	6,012	2,903	0.02	0.01	0.01	0.01
Buildings without heating	Q	Q	4.0	Q	Q	Q	274	Q	Q	Q	0.01	Q
Primary space-heating energy source												
Electricity	11	7	47.0	6	642	678	2,739	591	0.02	0.01	0.02	0.01
Natural gas	39	29	29.0	19	2,271	2,385	2,569	1,797	0.02	0.01	0.01	0.01
Fuel oil	569	Q	74.0	Q	1,988	Q	299	Q	0.29	Q	0.25	Q
District heat	11	8	12.0	Q	939	418	1,119	515	0.01	0.02	0.01	0.01
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	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other excluding fuel oil	513	77	161.0	43	5,440	3,735	6,996	3,070	0.09	0.02	0.02	0.01
Buildings without cooling	121	Q	Q	Q	Q	Q	Q	Q	0.21	Q	Q	Q

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All buildings	652	108	167.0	48	6,079	3,935	7,051	3,135	0.11	0.03	0.02	0.02
Water-heating energy sources												
Fuel oil	383	Q	Q	Q	1,401	Q	Q	Q	0.27	Q	Q	Q
Other excluding fuel oil	235	87	114.0	42	4,487	3,662	6,715	2,933	0.05	0.02	0.02	0.01
Buildings without water heating	Q	Q	Q	Q	191	Q	Q	Q	Q	Q	Q	Q
Cooking energy sources												
Fuel oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other excluding fuel oil	373	36	100.0	32	3,847	2,519	4,159	2,103	0.10	0.01	0.02	0.02
Buildings without cooking	269	72	66.0	16	2,180	1,411	2,884	1,030	0.12	0.05	0.02	0.02
Energy end uses (more than one may apply)												
Buildings with space heating	647	108	163.0	43	6,040	3,882	6,777	2,971	0.11	0.03	0.02	0.01
Buildings with cooling	531	77	162.0	43	5,491	3,739	7,004	3,075	0.10	0.02	0.02	0.01
Buildings with water heating	617	91	156.0	46	5,888	3,864	6,923	3,032	0.10	0.02	0.02	0.02
Buildings with cooking	383	36	100.0	32	3,899	2,524	4,167	2,105	0.10	0.01	0.02	0.02
Buildings with manufacturing	36	Q	Q	Q	347	Q	Q	Q	0.10	Q	Q	Q
Buildings with electricity generation	285	42	128.0	37	3,980	3,427	6,605	3,061	0.07	0.01	0.02	0.01
Percent of floorspace heated												
Not heated	Q	Q	4.0	Q	Q	Q	274	Q	Q	Q	0.01	Q
1 to 50	35	Q	20.0	6	486	Q	670	520	0.07	Q	0.03	0.01
51 to 99	93	7	25.0	7	1,270	568	1,250	726	0.07	0.01	0.02	0.01
100	519	91	118.0	31	4,284	2,984	4,856	1,725	0.12	0.03	0.02	0.02
Heating equipment (more than one may apply)												
Heat pumps	46	4	33.0	5	704	376	1,387	580	0.07	0.01	0.02	0.01
Furnaces	Q	Q	Q	Q	164	222	291	Q	0.23	0.02	0.03	Q
Individual space heaters	185	33	43.0	Q	1,910	1,322	1,945	697	0.10	0.03	0.02	0.02
District heat	12	9	17.0	Q	966	428	1,178	515	0.01	0.02	0.01	0.01
Boilers	454	30	82.0	17	3,398	2,041	2,351	1,550	0.13	0.01	0.03	0.01
Packaged heating units	184	62	70.0	19	2,132	2,127	3,940	1,382	0.09	0.03	0.02	0.01
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Water-heating equipment												
Centralized system	421	71	91.0	33	3,556	2,224	3,575	1,624	0.12	0.03	0.03	0.02
Distributed system	71	6	16.0	4	869	417	813	411	0.08	0.02	0.02	0.01
Combination of centralized and distributed system	125	14	50.0	9	1,464	1,224	2,535	997	0.09	0.01	0.02	0.01
Food preparation or serving areas in non-food service buildings (more than one may apply)												
Snack bar or concession stand	52	11	37.0	15	1,131	990	1,862	886	0.05	0.01	0.02	0.02
Fast food or small restaurant	22	9	19.0	Q	749	689	1,381	804	0.03	0.01	0.01	0.01
Cafeteria or large restaurant	208	15	65.0	18	2,115	1,346	2,333	1,299	0.10	0.01	0.03	0.01
Commercial kitchen/ food preparation area	148	21	50.0	17	1,728	1,451	2,319	1,180	0.09	0.01	0.02	0.01
Small kitchen area	153	16	45.0	11	1,495	1,038	1,379	755	0.10	0.02	0.03	0.01

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All buildings	652	108	167.0	48	6,079	3,935	7,051	3,135	0.11	0.03	0.02	0.02
HVAC conservation features (more than one may apply)												
Economizer cycle	180	31	76.0	26	2,974	2,495	3,546	2,257	0.06	0.01	0.02	0.01
Regular HVAC maintenance	550	75	142.0	41	5,603	3,565	6,687	3,046	0.10	0.02	0.02	0.01
Building automation system (BAS) ²	217	60	113.0	33	3,339	2,823	5,259	2,446	0.07	0.02	0.02	0.01
Equipment usage reduced when building not in full use (more than one may apply)												
Heating	460	57	123.0	33	4,707	2,843	4,513	2,103	0.10	0.02	0.03	0.02
Cooling	375	40	123.0	29	4,170	2,779	4,863	2,151	0.09	0.01	0.03	0.01
Lighting	614	84	155.0	44	5,596	3,719	6,609	2,980	0.11	0.02	0.02	0.01
Annual consumption (gallons)												
1,000 or less	43	17	29.0	9	1,964	2,000	3,466	1,612	0.02	0.01	0.01	0.01
1,001 to 5,000	144	Q	43.0	13	1,645	908	1,605	673	0.09	Q	0.03	0.02
5,001 to 10,000	117	33	28.0	12	837	451	835	406	0.14	0.07	0.03	0.03
10,001 to 25,000	120	Q	17.0	Q	905	436	794	Q	0.13	0.03	0.02	Q
Over 25,000	227	Q	50.0	Q	729	Q	351	Q	0.31	Q	0.14	Q

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 Fof the 2012 Commercial Buildings Energy Consumption Survey.