

Table E6. Electricity consumption intensities (kWh) by end use, 2012

	Electricity energy intensity ¹ (kWh/square foot in buildings using electricity for the end use)										
	Total	Space heating	Cooling	Ventilation	Water heating	Lighting	Cooking	Refrigeration	Office equipment	Computing	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Building floorspace (square feet)											
1,001 to 5,000	17.4	0.9	2.4	1.9	0.2	2.4	6.0	7.0	1.0	1.7	2.5
5,001 to 10,000	13.3	0.5	1.8	1.8	0.2	2.1	2.9	4.1	0.7	1.4	2.3
10,001 to 25,000	11.7	0.6	1.6	1.8	0.2	2.0	1.5	2.5	0.6	1.2	2.2
25,001 to 50,000	12.8	0.5	2.1	2.2	0.1	2.5	0.6	2.0	0.6	1.2	2.5
50,001 to 100,000	14.1	0.5	2.4	2.4	0.2	2.4	0.5	2.5	0.6	1.3	2.5
100,001 to 200,000	15.3	0.4	2.5	2.8	0.1	2.8	0.5	2.4	0.5	1.8	2.7
200,001 to 500,000	16.9	0.4	3.4	2.9	0.2	3.0	0.5	2.0	0.5	1.7	3.2
Over 500,000	18.4	0.4	3.9	3.5	0.1	3.3	0.7	1.0	0.8	2.0	3.8
Principal building activity											
Education	11.0	0.5	2.5	1.6	0.2	1.9	0.2	1.0	0.5	1.9	1.6
Food sales	48.7	0.6	1.6	2.8	(*)	3.6	4.3	34.5	0.5	0.6	2.7
Food service	44.9	1.4	5.3	5.0	1.1	3.0	15.9	18.3	1.2	0.8	3.4
Health care	25.8	0.5	5.1	5.8	0.2	4.3	1.2	1.4	1.2	2.4	4.9
Inpatient	31.0	0.5	7.7	5.6	0.7	4.9	1.3	1.8	1.5	2.6	6.2
Outpatient	18.7	0.6	1.9	6.1	(*)	3.5	0.7	0.8	0.7	2.1	3.2
Lodging	15.3	0.6	2.1	2.5	0.7	2.0	1.4	1.7	2.2	0.3	3.7
Mercantile	18.3	0.5	2.4	3.2	0.2	3.6	0.4	5.4	0.5	0.6	2.4
Retail (other than mall)	15.2	0.5	2.2	2.5	(*)	3.9	0.4	3.5	0.4	0.6	2.4
Enclosed and strip malls	21.1	0.4	2.6	3.7	0.4	3.4	0.4	6.9	0.5	0.6	2.5
Office	15.9	0.6	2.2	3.9	0.1	2.7	0.2	0.6	0.7	3.1	2.4
Public assembly	14.5	1.0	5.2	1.3	(*)	1.9	0.5	1.5	0.4	0.9	3.8
Public order and safety	14.9	0.4	3.3	1.1	0.6	3.2	0.6	0.6	0.7	1.6	4.0
Religious worship	5.2	0.3	1.0	0.9	(*)	0.6	0.2	0.3	0.3	0.2	1.8
Service	8.3	0.4	1.3	1.0	0.1	2.5	0.2	0.4	0.3	0.6	2.5
Warehouse and storage	6.6	0.2	1.0	0.4	(*)	2.1	(*)	1.6	0.2	0.4	1.8
Other	28.3	0.7	4.2	2.5	(*)	5.7	Q	2.5	0.4	6.5	7.6
Vacant	4.5	0.2	0.6	0.9	(*)	1.3	Q	0.4	0.1	0.4	2.0
Year constructed											
Before 1920	8.4	0.4	1.0	1.6	0.1	1.6	0.8	1.5	0.4	0.9	1.9
1920 to 1945	10.9	0.4	1.8	1.8	0.1	1.9	0.6	2.0	0.5	1.3	2.1
1946 to 1959	11.8	0.5	1.9	2.0	0.2	2.1	0.9	1.9	0.5	1.1	2.4
1960 to 1969	14.4	0.6	2.2	2.2	0.2	2.6	1.1	2.3	0.7	1.7	2.8
1970 to 1979	16.2	0.6	2.4	2.8	0.2	2.8	1.5	2.9	0.7	1.7	2.8
1980 to 1989	15.8	0.5	3.0	2.6	0.1	2.6	1.0	2.6	0.6	1.6	2.7
1990 to 1999	16.2	0.6	2.8	2.5	0.2	2.7	1.3	3.2	0.6	1.6	2.8
2000 to 2003	15.5	0.5	2.6	2.5	0.1	2.8	1.1	2.6	0.6	1.7	2.8
2004 to 2007	14.9	0.4	2.5	2.2	0.1	2.6	0.8	3.4	0.7	1.2	2.7
2008 to 2012	15.7	0.4	2.5	2.6	0.1	2.6	1.3	3.2	0.6	1.4	2.8

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Electricity energy intensity¹ (kWh/square foot in buildings using electricity for the end use)

	Total	Space heating	Cooling	Ventilation	Water heating	Lighting	Cooking	Refrigeration	Office equipment	Computing	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Census region and division											
Northeast	14.4	0.7	1.7	2.6	0.1	2.6	0.9	2.6	0.5	1.6	2.8
New England	12.1	0.8	1.2	2.0	0.1	2.1	1.0	2.8	0.5	1.2	2.6
Middle Atlantic	15.3	0.7	1.8	2.9	0.1	2.8	0.9	2.5	0.6	1.8	2.8
Midwest	13.4	0.9	1.7	2.3	0.1	2.5	1.1	2.3	0.6	1.4	2.6
East North Central	13.9	0.8	1.7	2.4	0.1	2.6	1.0	2.3	0.5	1.4	2.8
West North Central	12.5	0.9	1.7	2.1	0.1	2.3	1.2	2.1	0.6	1.3	2.4
South	16.1	0.4	3.6	2.4	0.2	2.7	1.1	2.8	0.7	1.5	2.7
South Atlantic	16.3	0.3	3.5	2.4	0.2	2.6	1.0	3.0	0.7	1.6	2.7
East South Central	14.6	0.5	2.6	2.3	0.1	2.5	1.3	2.7	0.7	1.2	2.5
West South Central	16.3	0.3	4.2	2.4	0.2	2.8	1.4	2.7	0.6	1.4	2.9
West	13.5	0.4	1.7	2.3	0.1	2.3	1.2	2.9	0.7	1.6	2.5
Mountain	13.9	0.5	2.1	2.4	0.1	2.4	1.0	2.4	0.8	1.5	2.5
Pacific	13.3	0.3	1.5	2.2	0.1	2.3	1.3	3.0	0.6	1.7	2.5
Climate region²											
Very cold/Cold	13.4	0.8	1.4	2.4	0.1	2.5	1.0	2.5	0.6	1.4	2.6
Mixed-humid	15.2	0.5	2.5	2.4	0.2	2.6	1.1	2.6	0.7	1.6	2.7
Mixed-dry/Hot-dry	13.0	0.1	2.1	2.0	0.1	2.2	1.4	2.7	0.6	1.6	2.3
Hot-humid	18.4	0.2	5.4	2.6	0.2	2.9	1.2	3.1	0.6	1.4	2.9
Marine	14.6	0.5	0.9	2.8	0.1	2.5	0.9	2.6	0.6	2.2	3.1
Number of floors											
One	14.3	0.5	2.2	2.0	0.2	2.6	1.7	4.1	0.5	1.1	2.3
Two	13.0	0.5	2.0	2.1	0.1	2.3	0.6	2.2	0.5	1.6	2.4
Three	13.5	0.5	2.2	2.4	0.1	2.3	0.9	1.6	0.7	1.6	2.7
Four to nine	17.2	0.5	3.5	3.4	0.1	2.8	0.8	1.2	0.9	2.1	3.6
Ten or more	18.3	0.4	3.6	3.7	0.1	3.0	0.6	0.9	1.0	2.2	3.6
Elevators and escalators (more than one may apply)											
Any elevators	16.9	0.5	3.2	3.2	0.1	2.8	0.7	1.3	0.8	2.2	3.3
Number of elevators											
One	13.2	0.5	2.1	2.5	0.1	2.3	0.5	1.5	0.6	1.6	2.5
Two to five	17.5	0.5	3.2	3.2	0.1	2.8	0.7	1.3	0.8	2.8	3.4
Six or more	21.0	0.4	4.6	4.1	0.1	3.4	0.7	1.2	1.0	2.1	4.2
Any escalators	18.2	0.5	3.6	3.5	0.1	3.4	0.6	1.4	1.0	1.4	3.8
Number of workers (main shift)											
Fewer than 5	8.6	0.6	1.4	1.0	0.1	1.6	1.4	2.7	0.6	0.7	2.1
5 to 9	12.5	0.5	1.8	1.7	0.1	2.0	2.7	3.1	0.6	0.8	2.3
10 to 19	13.7	0.6	1.8	1.9	0.2	2.2	2.9	3.5	0.7	1.0	2.3
20 to 49	15.1	0.5	2.2	2.3	0.2	2.6	1.3	3.3	0.6	1.5	2.5
50 to 99	15.9	0.5	2.7	2.6	0.2	2.8	0.5	2.7	0.6	1.6	2.6
100 to 249	16.9	0.4	2.9	2.9	0.1	3.1	0.4	2.4	0.6	1.8	3.0
250 or more	20.8	0.5	4.1	4.3	0.2	3.5	0.6	1.3	0.8	2.7	3.8

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Electricity energy intensity¹ (kWh/square foot in buildings using electricity for the end use)

	Total	Space heating	Cooling	Ventilation	Water heating	Lighting	Cooking	Refrigeration	Office equipment	Computing	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Weekly operating hours											
Fewer than 40	5.3	0.5	1.2	0.4	0.1	0.9	0.4	1.0	0.4	0.9	1.5
40 to 48	9.8	0.4	1.8	1.4	0.1	1.9	0.3	0.9	0.5	1.6	1.9
49 to 60	11.7	0.5	2.0	2.0	0.1	2.2	0.4	1.1	0.5	1.8	2.2
61 to 84	15.8	0.5	2.5	2.8	0.2	2.7	0.8	3.5	0.5	1.2	2.4
85 to 167	21.4	0.7	2.9	3.0	0.1	3.3	3.3	7.3	0.4	0.9	3.1
Open continuously	21.5	0.5	3.7	3.7	0.2	3.6	1.5	3.1	1.2	1.8	4.4
Ownership and occupancy											
Nongovernment owned	15.1	0.5	2.3	2.5	0.1	2.6	1.4	3.2	0.6	1.4	2.7
Owner occupied	15.0	0.6	2.5	2.2	0.1	2.6	1.6	2.9	0.7	1.3	2.9
Leased to tenant(s)	15.4	0.5	2.2	2.7	0.2	2.6	1.5	3.7	0.6	1.5	2.5
Owner occupied and leased	15.0	0.4	2.2	2.6	0.1	2.6	0.8	2.5	0.5	1.8	2.6
Unoccupied	2.5	Q	0.5	(*)	Q	0.6	Q	Q	Q	Q	1.8
Government owned	13.3	0.5	2.8	2.1	0.2	2.3	0.4	1.1	0.6	1.8	2.6
Federal	14.4	0.4	2.7	3.2	0.1	2.9	0.4	0.5	0.4	1.4	3.3
State	14.6	0.6	2.5	3.0	0.1	2.7	0.6	1.3	0.7	1.9	2.9
Local	12.5	0.5	2.9	1.6	0.2	2.1	0.4	1.1	0.5	1.8	2.3
Party responsible for operation and maintenance of energy systems											
Building owner	14.4	0.5	2.5	2.4	0.1	2.5	1.0	2.3	0.6	1.6	2.7
Business owner or tenant	16.3	0.4	2.1	2.4	0.2	2.7	1.5	5.2	0.5	1.1	2.3
Property management	14.8	0.4	2.7	2.9	0.1	2.2	1.3	2.1	0.8	1.8	2.5
Other	16.2	0.5	3.0	1.9	Q	2.4	1.7	3.8	0.7	0.9	2.9
Provider of direct input on energy-related equipment purchases											
Building owner	14.3	0.5	2.5	2.4	0.1	2.5	1.0	2.3	0.6	1.6	2.7
Business owner or tenant	17.4	0.5	2.3	2.5	0.2	2.8	1.9	5.2	0.5	1.2	2.5
Property management	13.5	0.5	2.0	2.8	0.1	2.2	1.3	2.0	0.6	1.2	2.3
Other	16.4	0.4	2.7	2.4	0.1	2.4	1.3	5.1	0.6	0.9	2.4
Number of establishments											
One	14.3	0.6	2.4	2.2	0.1	2.5	1.4	2.5	0.7	1.5	2.7
2 to 5	14.0	0.4	2.1	2.4	0.1	2.4	0.8	2.8	0.5	1.2	2.6
6 to 10	16.3	0.4	2.3	3.1	0.2	2.5	0.4	3.6	0.5	1.9	2.3
11 to 20	18.6	0.5	2.9	3.7	0.2	3.0	0.4	3.8	0.6	1.5	2.7
More than 20	20.1	0.4	3.7	3.6	0.2	3.7	0.4	2.2	0.6	3.0	3.0
Currently unoccupied	2.2	Q	0.5	(*)	Q	0.5	Q	Q	Q	Q	1.6
Predominant exterior wall material											
Brick, stone, or stucco	15.1	0.5	2.5	2.5	0.2	2.5	1.2	2.4	0.7	1.6	2.7
Concrete (block or poured)	15.8	0.4	2.7	2.4	0.2	2.7	1.0	3.8	0.6	1.2	2.6
Concrete panels	14.3	0.3	2.1	2.4	0.1	2.7	0.8	1.9	0.6	1.8	2.9
Siding or shingles	12.8	0.7	1.7	1.9	0.2	2.1	1.9	3.0	0.6	1.2	2.4
Metal panels	9.8	0.5	2.0	1.3	0.1	2.5	0.6	1.5	0.3	1.0	2.2
Window glass	23.4	0.7	4.1	4.8	0.1	3.8	0.6	1.7	0.7	4.7	3.9
Other	16.0	0.7	2.7	2.2	0.2	2.2	Q	4.6	0.5	1.5	3.0
No one major type	13.1	0.4	1.5	2.4	0.1	2.4	Q	2.1	0.5	1.2	2.8

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	Total	Space heating	Cooling	Ventilation	Water heating	Lighting	Cooking	Refrigeration	Office equipment	Computing	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Predominant roof material											
Metal surfacing	11.2	0.5	2.2	1.4	0.1	2.3	1.1	2.5	0.5	1.0	2.2
Synthetic or rubber	16.5	0.6	2.5	2.8	0.1	2.8	1.0	2.9	0.6	1.7	3.0
Built-up	15.8	0.4	2.8	2.8	0.2	2.7	1.0	2.5	0.6	1.7	2.7
Slate or tile shingles	13.9	0.4	2.3	2.2	0.3	2.1	1.3	2.6	0.9	1.5	2.8
Wooden materials (including shingles)	12.5	0.3	1.8	1.6	0.2	1.9	3.4	4.0	0.7	1.0	2.1
Asphalt, fiberglass, or other shingles	13.4	0.6	2.1	2.0	0.2	2.2	1.3	2.6	0.7	1.2	2.5
Concrete	18.9	0.3	3.9	3.3	Q	3.0	0.6	2.4	0.7	3.2	3.2
Other	15.8	0.2	2.6	2.3	Q	2.3	Q	4.3	0.5	1.0	2.9
No one major type	8.0	0.4	1.2	1.1	Q	1.6	Q	Q	0.3	0.8	2.0
Roof characteristics											
Roof tilt											
Flat	16.4	0.5	2.8	2.8	0.2	2.9	1.1	2.6	0.6	1.7	2.9
Shallow pitch	13.0	0.5	2.0	1.8	0.1	2.3	1.1	3.3	0.6	1.3	2.3
Steeper pitch	11.1	0.6	1.8	1.6	0.2	1.7	1.0	2.0	0.7	1.1	2.3
Cool roof	16.8	0.4	2.8	2.8	0.2	2.9	0.9	3.0	0.6	1.8	2.9
Renovations in buildings constructed before 2008 (more than one may apply)											
Any type of renovation	15.5	0.5	2.5	2.6	0.2	2.6	1.0	2.5	0.6	1.7	2.8
Addition or annex	15.8	0.5	3.0	2.6	0.2	2.7	0.7	2.0	0.7	1.4	3.1
Reduction in floorspace	20.5	0.4	4.0	3.9	0.1	3.8	0.9	3.2	0.6	1.6	3.5
Roof replacement	15.9	0.5	2.6	2.8	0.2	2.7	1.0	2.2	0.6	1.7	2.9
Exterior wall replacement	16.6	0.6	2.9	2.7	0.2	2.6	0.9	2.6	0.6	2.0	2.9
Interior wall reconfiguration	16.8	0.5	2.7	3.0	0.1	2.8	0.9	2.1	0.7	2.2	3.0
Window replacement	14.4	0.5	2.4	2.4	0.1	2.3	1.0	1.7	0.7	1.8	2.7
HVAC equipment upgrade	16.2	0.5	2.7	2.8	0.2	2.7	0.9	2.3	0.7	1.8	2.9
Lighting upgrade	16.1	0.5	2.6	2.7	0.1	2.6	1.1	2.6	0.7	1.7	2.9
Electrical upgrade	16.4	0.5	2.8	2.7	0.2	2.6	1.1	2.4	0.7	1.9	3.0
Plumbing system upgrade	16.1	0.5	2.6	2.8	0.2	2.5	1.2	2.2	0.8	1.9	3.0
Insulation upgrade	16.6	0.6	2.8	2.6	0.2	2.5	1.1	2.9	0.8	2.1	2.9
Fire, safety, or security upgrade	16.4	0.5	2.9	2.9	0.1	2.6	1.0	2.2	0.7	2.0	2.9
Structural upgrade	17.6	0.5	3.4	2.6	0.1	2.6	0.9	2.4	0.9	2.3	3.4
Other	15.3	0.4	3.1	3.1	0.1	2.7	Q	1.3	0.6	2.3	2.7
No renovations	13.6	0.5	2.3	2.1	0.2	2.5	1.1	2.8	0.6	1.3	2.5
Buildings constructed 2008 or later	15.7	0.4	2.5	2.6	0.1	2.6	1.3	3.2	0.6	1.4	2.8
Energy sources (more than one may apply)											
Electricity	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Natural gas	15.4	0.5	2.4	2.5	0.2	2.6	1.1	2.9	0.7	1.5	2.7
Fuel oil	18.9	0.6	3.6	3.3	0.1	3.2	0.7	1.8	0.7	2.3	3.8
District heat	17.3	0.5	2.2	4.1	0.2	3.4	0.8	1.2	1.0	2.0	4.1
District chilled water	18.6	0.5	2.2	4.3	0.3	3.7	1.1	1.2	1.0	2.6	4.5
Propane	14.4	0.8	2.1	1.8	0.1	2.4	1.2	3.2	0.7	0.9	2.9
Other	13.1	0.4	2.2	2.4	0.1	2.3	0.6	2.1	0.4	1.2	2.4

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	Total	Space heating	Cooling	Ventilation	Water heating	Lighting	Cooking	Refrigeration	Office equipment	Computing	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Space-heating energy sources											
Electricity	15.8	0.5	2.6	2.4	0.2	2.6	1.0	2.9	0.6	1.5	2.6
Electricity main	16.8	0.6	3.0	2.4	0.2	2.7	1.2	3.0	0.7	1.8	2.7
Electricity secondary	14.7	0.4	2.1	2.5	0.1	2.5	0.9	2.8	0.5	1.3	2.5
Other excluding electricity	13.7	N	2.0	2.4	0.1	2.5	1.2	2.3	0.6	1.5	2.8
Buildings without heating	9.4	N	4.4	1.3	0.1	2.1	1.2	3.1	0.4	0.9	2.3
Primary space-heating energy source											
Electricity	16.8	0.6	3.0	2.4	0.2	2.7	1.2	3.0	0.7	1.8	2.7
Natural gas	14.2	0.3	2.1	2.3	0.1	2.5	1.1	2.7	0.5	1.4	2.5
Fuel oil	9.3	0.8	1.4	1.4	0.1	2.0	0.4	1.2	0.5	1.1	2.2
District heat	17.4	0.5	2.1	4.2	0.2	3.4	0.9	1.2	1.0	2.0	4.2
Propane	9.2	1.0	0.9	0.9	0.1	1.4	2.8	3.0	0.4	0.5	1.7
Other	8.0	Q	0.5	1.1	0.1	1.9	Q	1.2	0.5	0.7	2.0
Cooling energy sources											
Electricity	15.2	0.5	2.4	2.4	0.2	2.6	1.1	2.7	0.6	1.5	2.6
Other excluding electricity	17.3	0.5	N	4.1	0.2	3.7	1.5	1.3	1.1	2.6	4.3
Buildings without cooling	4.9	0.4	N	0.3	0.1	1.5	0.9	2.4	0.3	0.5	1.9
Water-heating energy sources											
Electricity	15.2	0.5	2.5	2.3	0.2	2.6	0.9	2.9	0.5	1.6	2.5
Other excluding electricity	15.5	0.5	2.5	2.6	N	2.6	1.4	2.5	0.8	1.5	2.9
Buildings without water heating	5.7	0.2	1.5	0.8	N	1.7	Q	0.7	0.4	0.9	2.0
Cooking energy sources											
Electricity	18.0	0.6	3.0	2.7	0.2	2.6	1.1	3.6	0.7	1.4	2.7
Other excluding electricity	18.4	0.5	3.1	2.9	0.3	2.6	N	4.7	0.8	1.1	3.0
Buildings without cooking	11.7	0.5	1.9	2.0	0.1	2.5	N	1.2	0.5	1.7	2.6
Energy end uses (more than one may apply)											
Buildings with space heating	15.0	0.5	2.4	2.4	0.2	2.6	1.1	2.7	0.6	1.5	2.7
Buildings with cooling	15.3	0.5	2.4	2.5	0.2	2.6	1.1	2.7	0.6	1.5	2.7
Buildings with water heating	15.3	0.5	2.5	2.5	0.2	2.6	1.1	2.7	0.6	1.5	2.7
Buildings with cooking	18.2	0.5	3.0	2.8	0.2	2.6	1.1	4.0	0.7	1.3	2.8
Buildings with manufacturing	13.2	0.4	2.1	1.7	0.1	2.9	1.1	2.1	0.3	0.9	3.3
Buildings with electricity generation	19.1	0.5	3.4	3.3	0.2	3.1	0.8	2.5	0.7	2.2	3.5
Percent of floorspace heated											
Not heated	9.4	N	4.4	1.3	0.1	2.1	1.2	3.1	0.4	0.9	2.3
1 to 50	9.7	0.1	1.2	1.1	0.1	1.9	1.0	2.3	0.3	1.3	2.1
51 to 99	16.0	0.4	2.6	2.6	0.2	2.6	0.9	3.4	0.6	1.2	2.6
100	15.7	0.6	2.5	2.6	0.2	2.7	1.1	2.5	0.7	1.7	2.8
Percent of floorspace cooled											
Not cooled	4.9	0.4	N	0.3	0.1	1.5	0.9	2.4	0.3	0.5	1.9
1 to 50	8.1	0.3	0.7	1.0	0.1	1.9	0.6	1.5	0.3	0.6	2.0
51 to 99	16.8	0.5	2.5	2.8	0.2	2.7	1.0	3.2	0.6	1.8	2.8
100	18.1	0.6	3.3	3.0	0.2	2.9	1.3	2.9	0.8	1.8	3.0

Table E6. Electricity consumption intensities (kWh) by end use, 2012

Electricity energy intensity ¹ (kWh/square foot in buildings using electricity for the end use)											
	Total	Space heating	Cooling	Ventilation	Water heating	Lighting	Cooking	Refrigeration	Office equipment	Computing	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Percent lit when open											
Zero	3.1	Q	Q	Q	Q	Q	Q	Q	Q	Q	2.3
1 to 50	9.0	0.4	1.5	1.5	0.1	1.2	0.8	1.5	0.6	0.7	2.5
51 to 99	15.1	0.5	2.4	2.5	0.2	2.4	1.0	2.8	0.6	1.5	2.6
100	16.8	0.5	2.8	2.6	0.1	3.2	1.2	2.9	0.7	1.8	2.8
Building never open/electricity not used	2.3	0.4	0.6	(*)	Q	Q	Q	Q	Q	Q	1.4
Percent lit during off hours											
Zero	9.4	0.5	1.7	1.5	0.1	1.6	0.7	1.5	0.4	1.3	2.0
1 to 50	15.4	0.5	2.6	2.5	0.2	2.7	1.0	2.7	0.6	1.5	2.7
51 to 100	23.8	0.5	3.5	3.8	0.2	4.2	2.1	4.7	1.0	2.1	4.2
Building always open with no "off hours"	25.5	0.4	4.0	4.0	0.2	4.4	1.7	5.9	1.4	1.7	4.5
Electricity not used	N	N	N	N	N	N	N	N	N	N	N
Heating equipment (more than one may apply)											
Heat pumps	15.2	0.4	2.8	2.1	0.2	2.4	0.7	2.4	0.9	1.6	2.6
Furnaces	12.3	0.6	1.6	1.8	0.1	2.0	1.3	2.6	0.6	1.1	2.1
Individual space heaters	13.1	0.5	1.9	2.1	0.1	2.4	0.8	2.1	0.6	1.3	2.5
District heat	17.3	0.5	2.1	4.1	0.2	3.4	0.8	1.2	1.0	2.0	4.1
Boilers	15.6	0.4	2.9	2.8	0.1	2.6	0.6	1.7	0.7	1.8	3.0
Packaged heating units	15.7	0.5	2.5	2.5	0.2	2.6	1.3	3.3	0.6	1.4	2.6
Other	24.4	0.9	1.8	3.3	0.2	2.9	1.2	11.7	0.3	0.6	2.5
Cooling equipment (more than one may apply)											
Residential-type central air conditioners	12.6	0.5	1.8	1.5	0.1	2.1	0.9	3.3	0.6	1.0	2.2
Heat pumps	15.1	0.4	2.6	2.2	0.2	2.4	0.6	2.5	0.8	1.6	2.5
Individual air conditioners	12.9	0.5	2.1	1.9	0.2	2.1	0.8	1.8	0.8	1.2	2.5
District chilled water	18.6	0.5	2.2	4.3	0.3	3.7	1.1	1.2	1.0	2.6	4.5
Central chillers	19.3	0.4	3.7	3.6	0.1	3.1	0.6	1.4	0.7	2.6	3.6
Packaged air conditioning units	16.1	0.5	2.5	2.7	0.2	2.6	1.3	3.2	0.6	1.3	2.6
Swamp coolers	15.0	0.6	2.0	2.2	0.2	2.5	2.2	3.9	0.5	0.9	2.3
Other	28.7	Q	3.5	4.4	Q	4.5	Q	1.3	0.4	Q	4.1
Main equipment replaced since 1990 (more than one may apply)											
Heating	14.1	0.5	2.2	2.1	0.2	2.3	1.1	2.7	0.6	1.5	2.4
Cooling	14.5	0.5	2.4	2.2	0.2	2.3	1.0	2.5	0.7	1.6	2.5
Water-heating equipment											
Centralized system	15.3	0.6	2.5	2.4	0.2	2.6	1.4	2.6	0.7	1.5	2.8
Distributed system	12.4	0.4	2.0	1.9	0.1	2.4	0.8	2.1	0.4	1.3	2.3
Combination of centralized and distributed system	17.2	0.4	2.8	2.9	0.2	2.8	0.7	3.3	0.6	1.8	2.7

Table E6. Electricity consumption intensities (kWh) by end use, 2012

Electricity energy intensity¹ (kWh/square foot in buildings using electricity for the end use)

	Total	Space heating	Cooling	Ventilation	Water heating	Lighting	Cooking	Refrigeration	Office equipment	Computing	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Lighting equipment types (more than one may apply)											
Incandescent	15.9	0.5	2.8	2.6	0.2	2.6	0.9	2.8	0.7	1.5	2.7
Standard fluorescent	15.0	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Compact fluorescent	16.5	0.5	2.8	2.8	0.2	2.7	1.0	2.6	0.7	1.7	2.9
High-intensity discharge (HID)	16.3	0.4	3.0	2.7	0.2	2.9	0.7	2.6	0.6	1.4	3.0
Halogen	17.0	0.5	2.9	2.8	0.2	2.8	0.9	3.0	0.7	1.5	2.9
LED	18.8	0.5	3.2	3.3	0.2	2.9	0.8	3.5	0.7	1.6	3.2
Other	21.4	Q	3.8	3.5	Q	2.9	1.1	4.1	0.9	1.6	3.4
Refrigeration equipment (more than one may apply)											
Any refrigeration	15.6	0.5	2.5	2.5	0.2	2.6	1.1	2.7	0.6	1.5	2.7
Walk-in units	21.4	0.5	3.4	3.2	0.2	2.9	1.4	5.7	0.8	1.4	3.0
Cases or cabinets	20.3	0.5	3.1	3.1	0.2	2.9	1.3	5.3	0.7	1.3	2.9
Large cold storage areas	23.5	0.3	2.8	2.6	0.2	2.9	1.2	10.2	0.5	0.9	2.9
Commercial ice makers	19.9	0.5	3.4	3.2	0.2	2.9	1.3	4.1	0.8	1.6	3.1
Residential-type or compact units	14.6	0.5	2.4	2.4	0.2	2.5	0.8	1.9	0.6	1.6	2.7
Vending machines	16.9	0.5	2.8	2.9	0.2	2.9	0.7	2.5	0.7	1.6	3.0
No refrigeration	8.3	0.5	1.7	1.4	0.1	2.2	Q	N	0.5	1.5	2.3
Office equipment (more than one may apply)											
Desktop computers	15.3	0.5	2.5	2.5	0.1	2.6	1.0	2.6	0.6	1.5	2.7
With flat screen monitors	15.3	0.5	2.5	2.5	0.1	2.6	1.0	2.6	0.6	1.5	2.7
With multiple monitors	16.9	0.5	2.9	3.0	0.1	2.8	0.7	2.1	0.7	2.2	2.9
Laptop computers	15.2	0.5	2.6	2.6	0.2	2.6	0.7	2.1	0.6	1.7	2.7
Dedicated servers	16.3	0.5	2.7	2.7	0.1	2.7	0.8	2.5	0.6	1.9	2.8
Laser printers	15.8	0.5	2.5	2.6	0.1	2.7	0.9	2.5	0.7	1.7	2.8
Inkjet printers	14.5	0.5	2.4	2.2	0.2	2.5	1.2	2.5	0.5	1.3	2.6
FAX machines	15.4	0.5	2.5	2.5	0.1	2.7	0.9	2.6	0.6	1.5	2.7
Photocopiers	15.3	0.5	2.6	2.6	0.1	2.7	0.6	2.1	0.7	1.7	2.8
Number of desktop computers											
None	8.4	0.7	1.8	1.1	0.2	1.6	2.1	3.6	0.8	Q	2.2
1 to 4	13.1	0.5	1.7	1.6	0.1	2.0	3.5	4.2	0.6	0.4	2.4
5 to 9	14.2	0.5	1.9	1.9	0.2	2.4	1.5	3.8	0.6	0.8	2.5
10 to 19	13.8	0.5	1.9	2.2	0.1	2.5	0.9	2.8	0.5	1.3	2.4
20 to 49	16.0	0.5	2.6	2.6	0.2	2.9	0.6	3.0	0.7	1.2	2.8
50 to 99	14.4	0.6	2.6	2.6	0.2	2.7	0.5	1.7	0.6	1.5	2.6
100 to 249	16.4	0.4	2.6	3.0	0.2	3.0	0.4	1.5	0.7	2.4	3.0
250 or more	19.2	0.4	4.2	3.7	0.1	3.0	0.5	0.9	0.7	3.4	3.2

Table E6. Electricity consumption intensities (kWh) by end use, 2012

Electricity energy intensity¹ (kWh/square foot in buildings using electricity for the end use)

	Total	Space heating	Cooling	Ventilation	Water heating	Lighting	Cooking	Refrigeration	Office equipment	Computing	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
Number of laptop computers											
None	12.9	0.5	1.8	1.7	0.1	2.2	3.1	4.6	0.6	0.8	2.4
1 to 4	12.9	0.5	2.0	1.8	0.1	2.3	1.3	2.9	0.6	0.8	2.4
5 to 9	15.1	0.4	2.4	2.6	0.2	2.9	0.7	2.8	0.6	1.1	2.7
10 to 19	15.6	0.6	2.8	2.8	0.2	2.6	0.6	2.4	0.6	1.4	2.7
20 to 49	16.0	0.4	2.4	2.9	0.2	2.8	0.5	1.8	0.8	2.2	2.9
50 to 99	16.3	0.5	3.3	3.0	0.1	2.9	0.5	1.3	0.6	2.1	3.1
100 to 249	17.3	0.4	3.3	3.3	0.1	2.8	0.4	1.0	0.7	3.4	3.0
250 or more	19.7	0.5	4.2	3.8	0.1	3.0	0.4	1.0	0.8	3.2	3.3
Number of dedicated servers											
None	11.9	0.5	2.0	1.7	0.2	2.2	1.9	3.0	0.6	0.7	2.4
1 to 4	14.6	0.5	2.2	2.3	0.1	2.5	1.0	2.9	0.6	1.2	2.6
5 to 9	16.1	0.5	2.6	2.8	0.2	2.8	0.5	2.7	0.6	1.7	2.6
10 to 19	19.1	0.5	3.6	3.8	0.1	3.2	0.6	1.9	0.8	2.6	3.3
20 to 49	18.7	0.5	4.0	3.5	0.1	3.1	0.5	1.1	0.7	2.8	3.2
50 or more	25.8	0.5	5.0	4.2	0.1	3.5	0.6	1.2	0.8	6.8	4.1
Number of photocopiers											
None	13.1	0.6	2.0	1.8	0.2	2.2	3.1	4.5	0.6	0.9	2.4
One	12.6	0.5	1.8	1.8	0.1	2.2	1.0	2.7	0.5	0.9	2.4
2 to 4	14.4	0.5	2.3	2.4	0.1	2.6	0.5	2.1	0.6	1.5	2.5
5 to 9	16.3	0.4	2.7	2.8	0.2	3.0	0.4	2.0	0.6	2.2	2.7
10 or more	19.7	0.4	4.1	3.9	0.1	3.2	0.6	1.1	0.9	2.8	3.7
Number of TVs or video displays											
None	10.1	0.5	1.5	1.4	0.1	2.0	1.9	2.7	0.2	1.2	2.2
One	12.1	0.4	1.5	1.8	0.1	2.2	1.7	2.8	0.4	1.0	2.3
2 to 4	14.3	0.5	2.3	2.2	0.1	2.6	1.3	2.7	0.5	1.2	2.6
5 to 9	18.4	0.7	3.0	2.9	0.2	2.8	1.6	3.5	0.6	2.1	2.8
10 to 19	18.0	0.5	3.1	3.3	0.2	3.0	0.8	2.9	0.6	2.0	2.8
20 to 49	17.3	0.5	3.0	3.1	0.2	2.9	0.4	2.8	0.7	1.7	2.6
50 to 99	17.7	0.6	2.9	2.9	0.3	2.9	0.5	2.0	1.3	2.5	3.0
100 or more	19.7	0.4	4.2	3.4	0.2	2.8	1.0	1.6	1.8	1.4	4.0
Food preparation or serving areas in non-food service buildings (more than one may apply)											
Snack bar or concession stand	19.3	0.5	3.8	2.9	0.2	2.8	0.6	3.9	0.7	1.5	3.0
Fast food or small restaurant	22.9	0.4	3.7	3.6	0.2	3.4	0.7	6.0	0.9	1.3	3.3
Cafeteria or large restaurant	17.1	0.5	3.6	3.0	0.2	2.7	0.5	2.0	0.8	1.7	2.9
Commercial kitchen/food preparation area	18.1	0.5	3.4	2.9	0.2	2.6	0.7	3.6	0.9	1.2	3.0
Small kitchen area	14.5	0.5	2.8	2.2	0.1	2.2	0.5	2.3	0.7	1.2	2.7
Separate computer areas (more than one may apply)											
Data center or server farm	21.5	0.6	4.8	3.7	0.1	3.3	0.5	1.2	0.8	4.0	3.6
Computer-based training room	16.9	0.4	3.3	2.9	0.1	2.9	0.5	2.1	0.7	2.0	2.8
Student or public computer center	14.1	0.5	2.9	2.3	0.2	2.3	0.5	1.7	0.7	1.6	2.4

Table E6. Electricity consumption intensities (kWh) by end use, 2012

Electricity energy intensity ¹ (kWh/square foot in buildings using electricity for the end use)											
	Total	Space heating	Cooling	Ventilation	Water heating	Lighting	Cooking	Refrigeration	Office equipment	Computing	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7
HVAC conservation features (more than one may apply)											
Economizer cycle	17.5	0.5	2.8	3.3	0.1	3.0	0.8	2.4	0.6	1.9	3.1
Regular HVAC maintenance	16.0	0.5	2.6	2.6	0.2	2.7	1.1	2.7	0.7	1.6	2.8
Building automation system (BAS) ³	18.1	0.5	3.2	3.2	0.2	3.0	0.7	2.6	0.7	2.0	3.2
Window and interior lighting features (more than one may apply)											
Multipaned windows	15.6	0.5	2.5	2.6	0.2	2.6	1.1	2.8	0.7	1.6	2.7
Tinted window glass	16.2	0.5	2.8	2.7	0.2	2.8	0.9	2.7	0.6	1.6	2.8
Reflective window glass	19.0	0.5	3.3	3.3	0.2	3.0	0.7	3.1	0.8	2.2	3.1
External overhangs or awnings	17.1	0.5	2.7	2.7	0.2	2.7	1.3	3.8	0.7	1.5	2.7
Skylights or atriums	15.0	0.4	2.7	2.7	0.2	2.6	0.7	2.0	0.6	1.4	2.9
Light scheduling	17.9	0.5	2.9	3.1	0.2	2.8	0.9	3.4	0.7	1.8	2.9
Occupancy sensors	17.0	0.5	2.9	3.0	0.1	2.7	0.7	2.7	0.6	1.9	3.0
Multi-level lighting or dimming	18.7	0.6	3.1	3.3	0.2	2.7	0.9	3.8	0.8	1.5	3.1
Daylight harvesting	17.8	0.5	3.0	3.3	0.2	2.9	0.8	3.2	0.6	1.4	3.1
Demand responsive lighting	16.8	0.4	2.6	2.8	0.2	2.8	0.5	4.3	0.6	1.0	2.5
Building automation system (BAS) for lighting ³	19.8	0.5	3.2	3.5	0.2	3.2	0.7	4.1	0.5	1.7	3.0
Equipment usage reduced when building not in full use (more than one may apply)											
Heating	14.1	0.5	2.3	2.3	0.1	2.4	0.9	2.5	0.6	1.4	2.5
Cooling	14.4	0.5	2.4	2.4	0.1	2.4	0.9	2.5	0.6	1.4	2.5
Lighting	14.5	0.5	2.4	2.4	0.2	2.5	1.0	2.5	0.6	1.5	2.6
Annual consumption (kilowatthours)											
10,000 or less	1.3	0.2	0.3	0.1	(*)	0.3	0.1	0.1	0.1	0.2	0.5
10,001 to 50,000	4.8	0.3	0.7	0.6	0.1	1.0	0.3	0.5	0.3	0.6	1.3
50,001 to 100,000	8.2	0.5	1.2	1.1	0.1	1.6	0.9	1.2	0.5	1.0	1.9
100,001 to 500,000	13.3	0.5	1.8	1.8	0.2	2.2	2.0	3.4	0.6	1.1	2.3
500,001 to 1,000,000	16.4	0.6	2.5	2.6	0.2	2.6	1.9	2.8	0.8	1.6	2.7
1,000,001 to 5,000,000	18.3	0.5	2.8	3.2	0.2	3.2	0.8	3.6	0.6	1.5	3.1
Over 5,000,000	25.9	0.6	5.5	4.5	0.2	4.4	0.7	2.4	0.9	3.1	4.9

Table E6. Electricity consumption intensities (kWh) by end use, 2012

Electricity energy intensity ¹ (kWh/square foot in buildings using electricity for the end use)											
	Total	Space heat- ing	Cool- ing	Venti- lation	Water heat- ing	Light- ing	Cook- ing	Refrig- eration	Office equip- ment	Com- puting	Other
All buildings	14.6	0.5	2.4	2.4	0.2	2.5	1.1	2.7	0.6	1.5	2.7

¹The electricity intensity calculation (electricity consumption for the end use divided by the floorspace in buildings that use electricity for the particular end use) differs from the calculation used in the 2003 CBECS tables, in which the intensities were not conditional on the presence of the end use; the 2003 CBECS denominator was total floorspace in all buildings that used electricity. In this table, the intensities for each end use do not sum to the total electricity intensity, whereas they did in the 2003 CBECS table.

²These 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).

³In 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.

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

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/> • Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity, which is not included in the *Total of major fuels* category, is site electricity plus the conversion losses in the generation, transmission, and distribution processes. • 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 E of the 2012 Commercial Buildings Energy Consumption Survey.