

Revised: December, 2008

Table E4. Electricity Consumption (Btu) Intensities by End Use for Non-Mall Buildings, 2003

	Electricity Energy Intensity (thousand Btu/square foot)										
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Computers	Other
All Buildings*	48.0	1.8	6.3	6.1	0.8	18.1	0.3	5.6	1.0	2.3	5.6
Building Floorspace (Square Feet)											
1,001 to 5,000	60.8	2.9	6.8	2.9	1.7	14.6	1.1	21.6	1.2	1.9	6.0
5,001 to 10,000	42.2	2.0	5.6	2.8	0.9	13.3	0.7	9.0	0.9	1.5	5.7
10,001 to 25,000	35.8	1.7	4.1	3.9	0.7	13.3	0.3	4.6	0.8	1.7	4.7
25,001 to 50,000	41.8	1.8	6.6	6.0	1.0	14.4	0.2	4.1	0.8	1.9	5.0
50,001 to 100,000	44.8	1.8	6.4	7.2	0.8	17.5	0.3	3.3	0.7	2.0	5.0
100,001 to 200,000	53.5	1.8	6.9	8.8	0.5	21.7	0.1	2.7	Q	3.5	6.2
200,001 to 500,000	51.2	1.2	7.2	7.6	0.7	23.0	0.2	1.2	1.1	2.7	6.1
Over 500,000	64.9	1.4	7.9	9.5	0.5	30.6	0.3	2.1	1.4	3.9	7.3
Principal Building Activity											
Education	37.6	1.5	7.5	8.4	1.1	11.5	0.2	1.6	0.4	3.3	2.1
Food Sales	168.5	5.1	9.9	6.0	Q	37.2	1.9	96.1	1.6	1.5	8.1
Food Service	130.9	6.3	17.0	14.8	6.3	25.4	8.1	42.1	1.0	1.0	8.9
Health Care	78.3	1.9	10.6	13.3	0.8	33.1	0.2	2.6	1.2	3.2	11.3
Inpatient	93.7	1.6	13.0	20.0	1.1	40.1	0.4	2.0	1.1	3.6	10.9
Outpatient	55.0	2.3	7.0	3.3	0.3	22.6	0.1	3.5	1.3	2.6	12.0
Lodging	46.1	2.8	4.7	2.7	2.3	24.3	0.4	2.3	Q	1.2	4.7
Retail (Other Than Mall).....	48.8	1.5	5.9	3.7	0.4	25.7	0.1	5.0	0.6	0.9	5.1
Office	58.9	2.7	8.3	5.2	0.6	23.1	0.1	2.9	2.6	6.1	7.5
Public Assembly	42.6	1.3	8.9	15.9	0.1	7.0	0.1	2.2	Q	0.8	5.8
Public Order and Safety	52.3	1.6	7.2	9.5	3.0	16.5	0.1	2.9	0.6	1.5	9.2
Religious Worship	16.6	0.8	2.8	1.4	0.1	4.4	0.1	1.7	0.1	0.2	4.9
Service	37.5	1.4	3.8	6.1	0.1	15.8	Q	2.2	0.3	0.8	7.0
Warehouse and Storage	25.9	0.5	1.4	2.2	0.2	14.0	Q	3.8	0.2	0.5	3.2
Other	76.8	1.4	9.3	6.1	0.3	34.3	Q	6.0	Q	2.9	12.6
Vacant	8.3	0.5	0.8	0.5	Q	2.4	Q	0.2	Q	0.1	3.7
Year Constructed											
Before 1920	24.1	0.5	1.7	2.9	Q	9.2	0.3	4.5	0.6	0.9	3.2
1920 to 1945	31.5	0.6	2.4	4.5	0.3	13.5	0.2	3.9	0.4	1.2	4.5
1946 to 1959	33.7	1.2	3.8	5.0	0.7	12.8	0.3	3.8	0.6	1.6	4.1
1960 to 1969	40.6	1.4	5.3	6.2	0.7	14.1	0.2	4.9	0.8	2.3	4.8
1970 to 1979	54.2	2.5	6.8	7.0	1.0	20.9	0.4	5.5	1.2	2.6	6.3
1980 to 1989	61.7	2.8	9.0	6.5	1.2	23.3	0.4	6.5	1.5	3.6	7.1
1990 to 1999	57.1	2.0	8.2	7.3	1.0	20.4	0.5	7.0	1.4	2.9	6.4
2000 to 2003	55.3	1.9	8.4	6.0	0.8	22.0	0.5	7.1	0.7	1.7	6.1
Census Region and Division											
Northeast	39.3	1.5	2.9	5.2	0.5	16.1	0.2	4.6	1.0	2.4	5.0
New England	36.7	1.6	2.0	4.1	0.7	14.2	0.3	6.5	0.7	2.1	4.4
Middle Atlantic	40.0	1.5	3.1	5.6	0.4	16.6	0.1	4.0	1.0	2.4	5.2
Midwest	44.1	2.6	3.1	6.1	0.6	17.2	0.3	5.3	0.9	2.1	5.7
East North Central	46.0	2.4	3.0	6.8	0.6	18.3	0.3	5.2	1.0	2.3	6.0
West North Central	40.0	3.0	3.4	4.8	0.8	14.8	0.2	5.5	0.7	1.6	5.1
South	56.1	1.4	10.6	6.7	1.2	19.7	0.5	6.8	0.8	2.4	5.9
South Atlantic	59.3	1.6	10.2	7.0	1.6	21.4	0.6	7.2	0.9	2.9	5.9
East South Central	53.0	1.8	7.1	6.9	0.9	19.6	Q	7.5	0.6	1.6	6.6
West South Central	52.3	1.0	12.8	6.2	0.8	17.2	0.5	5.8	0.7	1.9	5.5
West	47.1	1.6	6.0	5.6	0.6	18.2	0.3	4.8	1.7	2.5	5.8
Mountain	52.5	2.0	7.0	6.3	0.6	21.6	Q	5.0	Q	2.3	6.1
Pacific	44.4	1.5	5.5	5.2	0.7	16.5	0.3	4.7	Q	2.6	5.7

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Table E4. Electricity Consumption (Btu) Intensities by End Use for Non-Mall Buildings, 2003

	Electricity Energy Intensity (thousand Btu/square foot)										
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Computers	Other
All Buildings*	48.0	1.8	6.3	6.1	0.8	18.1	0.3	5.6	1.0	2.3	5.6
Climate Zone: 30-Year Average											
Under 2,000 CDD and --											
More than 7,000 HDD	39.3	2.2	2.1	5.8	0.5	15.1	0.3	5.6	0.8	1.7	5.1
5,500-7,000 HDD	44.7	2.6	3.2	5.8	0.6	18.1	0.3	5.2	1.0	2.3	5.7
4,000-5,499 HDD	49.9	2.0	5.1	6.1	0.7	20.2	0.3	5.4	1.6	2.7	5.8
Fewer than 4,000 HDD	49.3	1.1	7.4	6.2	1.1	18.1	0.4	6.1	0.9	2.2	5.8
2,000 CDD or More and --											
Fewer than 4,000 HDD	59.2	1.0	16.1	6.7	1.2	18.5	0.5	5.7	0.8	2.9	5.7
Number of Floors											
One	45.7	2.0	6.2	4.4	0.9	15.4	0.5	9.2	0.7	1.4	5.0
Two	43.1	1.6	5.5	6.1	1.0	15.9	0.3	4.4	1.1	2.0	5.3
Three	38.7	1.8	4.4	5.4	0.6	15.3	0.2	2.9	1.0	2.2	5.1
Four to Nine	59.1	1.6	8.0	9.9	0.6	23.9	0.2	2.5	1.2	4.0	7.1
Ten or More	66.1	2.1	8.4	7.6	0.7	30.7	0.3	1.5	1.9	5.1	7.7
Elevators and Escalators (more than one may apply)											
Any Elevators	58.0	1.9	7.9	9.0	0.7	23.7	0.2	2.2	1.6	3.9	6.9
Number of Elevators.....											
One	43.7	1.7	5.8	7.5	0.7	16.5	0.1	2.5	0.9	2.7	5.2
Two to Five	57.8	2.2	7.8	8.8	0.7	23.1	0.2	2.1	1.8	4.2	6.9
Six or More	76.8	1.7	10.8	11.2	0.7	34.1	0.3	1.9	2.0	5.0	9.1
Any Escalators	82.2	2.1	13.4	12.7	0.7	33.9	Q	1.8	Q	4.8	9.3
Number of Workers (main shift)											
Fewer than 5	26.4	1.3	2.8	2.0	0.5	8.5	0.2	6.6	0.2	0.4	4.0
5 to 9	40.4	2.0	5.0	3.5	0.9	12.6	0.6	9.1	0.7	1.0	5.0
10 to 19	38.8	2.2	5.1	3.9	1.0	13.2	0.7	6.7	0.6	1.1	4.4
20 to 49	47.8	1.6	6.5	6.3	0.9	17.5	0.4	6.1	1.3	1.9	5.4
50 to 99	50.8	2.0	6.9	8.4	0.9	19.1	0.3	4.7	1.0	2.4	5.2
100 to 249	66.9	2.3	9.8	9.8	1.2	27.3	0.3	4.0	1.3	3.7	7.2
250 or More	76.3	1.9	10.0	10.5	0.7	32.9	0.2	2.3	2.1	6.6	9.0
Weekly Operating Hours											
Fewer than 40	15.3	0.9	2.9	1.2	0.2	3.7	0.2	1.9	0.1	0.4	3.7
40 to 48	34.3	1.9	5.7	3.6	0.5	11.5	0.1	2.9	0.9	2.2	5.2
49 to 60	38.1	1.5	5.3	4.5	0.5	14.6	0.1	3.2	1.0	2.2	5.3
61 to 84	48.2	1.8	6.0	6.5	0.8	17.9	0.4	6.2	0.9	2.3	5.3
85 to 167	75.4	2.3	7.7	11.1	1.3	24.0	1.4	17.2	0.8	3.1	6.3
Open Continuously	72.3	2.3	9.0	9.3	1.6	31.7	0.3	5.9	1.8	3.2	7.2
Ownership and Occupancy											
Nongovernment Owned.....	47.9	1.9	5.8	4.7	0.8	18.7	0.4	6.6	1.1	2.1	5.8
Owner Occupied	46.3	1.6	5.8	4.9	0.7	18.1	0.2	5.7	1.2	2.2	5.9
Nonowner Occupied	51.8	2.2	6.2	4.6	0.9	20.3	0.6	7.9	1.1	2.2	5.8
Unoccupied	6.4	Q	Q	0.2	Q	1.7	(*)	Q	Q	Q	3.2
Government Owned	48.2	1.6	7.7	10.5	0.9	16.1	0.2	2.3	0.7	3.0	5.3
Federal	67.1	0.9	6.5	12.2	0.2	32.5	0.1	1.6	0.8	2.8	9.5
State	53.9	0.8	6.7	14.1	0.8	16.3	0.1	2.5	0.8	5.4	6.4
Local	42.0	2.0	8.3	8.7	1.1	12.6	0.3	2.4	0.5	2.2	3.9
Vacancy Status											
Completely Vacant	6.2	Q	Q	0.2	Q	1.7	Q	Q	Q	Q	3.1
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	47.1	2.0	6.2	5.6	0.6	19.6	0.2	2.5	1.0	3.4	6.0
Not At All Vacant	49.7	1.8	6.5	6.4	0.9	18.2	0.4	6.6	1.0	2.2	5.6

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	Electricity Energy Intensity (thousand Btu/square foot)										
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Computers	Other
All Buildings*	48.0	1.8	6.3	6.1	0.8	18.1	0.3	5.6	1.0	2.3	5.6
Number of Establishments											
One	48.2	1.8	6.1	6.1	1.0	17.8	0.4	6.5	0.9	2.0	5.5
2 to 5	46.0	1.5	6.1	5.9	0.5	18.2	0.2	4.5	1.1	2.2	5.8
6 to 10	58.9	2.7	7.4	7.1	0.8	22.1	0.1	2.4	1.4	8.2	6.7
11 to 20	50.1	2.8	7.4	6.3	0.5	19.1	0.1	Q	1.0	3.3	6.8
More than 20	66.8	2.0	11.0	8.4	0.6	27.4	0.1	1.8	2.0	5.7	7.7
Currently Unoccupied	6.2	Q	Q	0.2	Q	1.7	Q	Q	Q	Q	3.1
Predominant Exterior Wall Material											
Brick, Stone or Stucco	46.7	1.8	6.4	6.4	1.0	16.4	0.4	5.6	0.9	2.3	5.5
Concrete (Block or Poured)	49.3	1.7	6.7	5.8	0.8	18.8	0.3	6.7	1.2	1.7	5.6
Concrete Panels	62.6	1.4	7.8	7.3	0.6	29.0	0.2	3.4	1.6	4.5	6.7
Siding or Shingles	37.7	2.3	4.2	3.4	0.9	12.3	0.5	7.2	0.9	1.4	4.5
Metal Panels	40.3	1.6	3.3	4.8	0.5	16.3	Q	6.0	0.5	1.5	5.7
Window Glass	65.2	3.0	10.4	7.2	1.0	24.7	0.1	2.0	1.9	6.2	8.8
Other	56.8	3.1	8.6	5.9	0.3	22.9	0.7	3.7	1.3	3.9	6.4
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Predominant Roof Material											
Built-Up	50.1	1.5	6.9	6.5	0.8	19.5	0.4	5.2	1.1	2.7	5.6
Shingles (Not Wood)	41.8	1.9	5.1	4.2	1.3	13.6	0.4	8.0	0.9	1.5	5.1
Metal Surfacing	34.9	1.6	4.2	4.2	0.6	13.4	Q	4.1	0.4	1.1	4.9
Synthetic or Rubber	60.5	2.5	7.9	8.6	0.8	22.4	0.4	6.2	1.5	3.6	6.7
Slate or Tile	42.5	1.7	6.6	4.4	0.7	14.1	0.6	6.9	0.8	1.8	5.1
Wooden Materials	41.6	2.5	6.3	4.4	1.0	16.1	(*)	4.7	0.7	1.2	4.5
Concrete	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	69.7	0.7	9.9	5.5	Q	37.7	Q	5.6	0.4	2.0	6.9
No One Major Type	35.5	Q	4.7	6.6	Q	10.8	Q	Q	0.7	Q	4.6
Renovations in Buildings Constructed Before 1980 (more than one may apply)											
Any Type of Renovation											
Since 1980	44.2	1.7	4.8	6.4	0.8	16.9	0.3	5.0	0.9	2.4	5.1
Addition or Annex	48.1	1.9	5.3	8.4	0.8	18.5	0.4	4.7	0.6	2.1	5.4
Reduction In Floorspace	51.8	1.7	5.2	8.9	0.9	22.0	0.2	2.3	0.9	3.0	6.7
Cosmetic Improvements	46.2	1.8	4.9	6.5	0.8	17.7	0.3	5.4	0.9	2.6	5.2
Wall or Roof Replacement	43.0	1.4	4.7	6.6	0.8	17.3	0.3	3.4	0.9	2.7	4.9
Interior Wall											
Re-Configuration	47.2	1.7	5.1	7.2	0.6	19.1	0.2	3.8	0.9	2.8	5.7
HVAC Equipment Upgrade.....	49.0	1.9	5.5	7.5	0.8	19.1	0.3	4.2	1.1	3.0	5.6
Lighting Upgrade	46.5	1.7	4.8	7.3	0.7	17.9	0.2	4.7	1.0	2.7	5.4
Window Replacement	39.9	1.5	3.6	5.9	0.7	15.9	0.2	4.1	0.7	2.6	4.7
Plumbing System Upgrade	43.9	1.4	4.5	7.0	0.7	18.1	0.2	3.5	0.7	2.6	5.1
Insulation Upgrade	43.4	1.4	4.9	7.5	0.6	16.1	0.3	3.8	0.8	2.7	5.3
Other Renovation	30.8	1.4	2.0	4.3	Q	13.8	0.3	3.4	0.3	1.0	3.7
No Renovations Since 1980.....	35.7	1.2	4.3	4.8	0.5	13.6	0.2	4.3	0.7	1.4	4.7
Building Newer than 1980	58.5	2.3	8.5	6.7	1.0	21.8	0.5	6.8	1.3	2.9	6.6
Energy Sources (more than one may apply)											
Electricity	48.0	1.8	6.3	6.1	0.8	18.1	0.3	5.6	1.0	2.3	5.6
Natural Gas	49.7	1.4	6.2	6.8	0.7	19.4	0.4	5.5	1.0	2.5	5.9
Fuel Oil	56.4	1.9	7.2	8.0	0.8	23.7	0.2	2.8	1.6	3.4	6.7
District Heat	61.5	0.5	4.4	12.8	0.6	26.9	0.1	2.2	0.8	5.4	7.7
District Chilled Water	67.4	0.7	5.6	17.2	0.8	23.9	0.2	2.6	1.0	7.2	8.2
Propane	47.9	1.2	5.1	5.7	0.8	19.9	0.3	7.2	0.7	1.3	5.7
Other	56.0	1.4	5.5	10.1	0.5	21.9	0.2	4.6	Q	2.8	7.3

Energy Information Administration

2003 Commercial Buildings Energy Consumption Survey: Energy End-Use Consumption Tables

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	Electricity Energy Intensity (thousand Btu/square foot)										
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Computers	Other
All Buildings*	48.0	1.8	6.3	6.1	0.8	18.1	0.3	5.6	1.0	2.3	5.6
Space-Heating Energy Sources											
Electricity	54.4	4.0	7.9	5.4	1.3	20.0	0.4	5.7	1.3	2.4	5.9
Electricity Main	56.7	5.7	9.4	4.3	1.8	19.0	0.5	6.9	1.3	2.3	5.5
Electricity Secondary	51.5	1.8	5.9	6.9	0.7	21.3	0.4	4.2	1.2	2.6	6.4
Other Excluding Electricity	44.2	(*)	4.8	7.0	0.4	17.3	0.3	5.4	0.8	2.4	5.6
Buildings without Heating	28.1	(*)	6.1	2.3	0.3	8.9	0.4	5.8	0.3	0.6	3.5
Primary Space-Heating Energy Source											
Electricity	56.7	5.7	9.4	4.3	1.8	19.0	0.5	6.9	1.3	2.3	5.5
Natural Gas	47.5	0.6	5.8	6.6	0.5	18.8	0.3	5.4	1.0	2.3	6.0
Fuel Oil	20.1	0.2	1.5	3.4	0.3	7.5	0.1	3.3	0.3	1.0	2.4
District Heat	63.1	0.4	4.2	13.3	0.6	27.6	0.1	2.2	0.9	5.6	8.1
Propane	35.8	0.5	3.8	4.4	0.5	9.3	Q	9.9	Q	Q	5.0
Other	43.1	0.5	2.8	5.0	0.4	20.5	0.1	6.1	0.5	Q	6.0
Cooling Energy Source											
Electricity	51.1	2.0	7.3	6.0	0.9	19.0	0.4	6.2	1.1	2.3	5.8
Other Excluding Electricity	59.6	Q	(*)	16.1	0.7	23.9	0.2	2.3	1.0	7.7	7.3
Buildings without Cooling	16.2	0.6	(*)	2.4	0.1	7.5	0.1	2.1	0.1	0.3	3.2
Water-Heating Energy Source											
Electricity	50.0	2.6	7.1	5.2	1.9	17.7	0.3	5.7	1.2	2.4	5.8
Other Excluding Electricity	52.4	1.3	6.4	7.9	(*)	20.5	0.4	6.2	1.0	2.7	6.0
Bldgs without Water Heating	21.1	0.6	2.3	2.1	(*)	9.1	Q	2.6	0.2	0.4	3.6
Cooking Energy Source											
Electricity	64.4	2.8	8.9	9.5	1.6	22.3	1.7	7.8	1.1	2.8	6.0
Other Excluding Electricity	58.3	1.6	8.4	8.5	0.9	21.2	(*)	8.9	1.0	2.0	5.7
Buildings without Cooking	40.4	1.5	5.0	4.4	0.6	16.0	(*)	4.1	1.0	2.3	5.5
Energy End Uses (more than one may apply)											
Buildings with Space Heating	49.1	1.9	6.3	6.3	0.9	18.6	0.3	5.6	1.0	2.4	5.8
Buildings with Cooling	51.5	2.0	7.0	6.5	0.9	19.2	0.4	6.0	1.1	2.6	5.9
Buildings with Water Heating	51.2	2.0	6.8	6.5	0.9	19.1	0.4	6.0	1.1	2.6	5.9
Buildings with Cooking	61.9	2.3	8.7	9.1	1.3	21.9	1.0	8.3	1.0	2.5	5.9
Buildings with Manufacturing	45.0	1.3	3.0	5.4	Q	20.5	Q	3.2	0.6	2.1	7.8
Buildings with Electricity Generation	69.4	2.4	9.1	10.1	1.0	28.6	0.3	3.3	2.2	4.4	8.0
Percent of Floorspace Heated											
Not Heated	28.1	(*)	6.1	2.3	0.3	8.9	0.4	5.8	0.3	0.6	3.5
1 to 50	27.4	0.8	2.0	2.7	0.6	10.1	Q	5.7	Q	0.6	3.6
51 to 99	48.7	1.7	6.1	6.0	0.8	18.7	0.3	6.7	0.8	1.9	5.6
100	52.4	2.1	7.0	6.9	0.9	19.8	0.4	5.4	1.1	2.8	6.1
Percent of Floorspace Cooled											
Not Cooled	16.2	0.6	(*)	2.4	0.1	7.5	0.1	2.1	0.1	0.3	3.2
1 to 50	26.7	0.9	1.4	3.4	0.4	11.8	Q	3.9	0.3	0.8	3.8
51 to 99	56.5	2.2	7.0	7.4	0.8	20.7	0.4	7.9	1.0	2.9	6.2
100	64.3	2.5	10.4	7.9	1.3	23.1	0.5	6.4	1.7	3.6	7.0

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Table E4. Electricity Consumption (Btu) Intensities by End Use for Non-Mall Buildings, 2003

	Electricity Energy Intensity (thousand Btu/square foot)										
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Computers	Other
All Buildings*	48.0	1.8	6.3	6.1	0.8	18.1	0.3	5.6	1.0	2.3	5.6
Percent Lit When Open											
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	22.0	1.2	3.1	2.8	0.5	6.2	0.2	2.8	Q	0.6	3.9
51 to 99	48.9	1.9	6.3	6.8	0.9	18.0	0.3	4.8	1.1	3.1	5.7
100	58.0	2.1	7.6	7.0	0.9	22.8	0.5	7.2	1.1	2.6	6.3
Building Never Open/ Electricity Not Used	7.1	Q	0.7	0.2	Q	2.1	Q	0.3	Q	Q	3.3
Percent Lit When Closed											
Zero	31.2	1.2	4.1	4.0	0.4	10.0	0.2	4.2	0.5	1.7	4.8
1 to 50	45.5	1.9	6.3	5.8	0.7	15.7	0.4	5.8	1.0	2.3	5.5
51 to 100	74.0	2.6	7.5	6.8	1.1	35.6	0.6	11.5	0.8	2.2	5.3
Building Never Closed/ Electricity Not Used	72.3	2.3	9.0	9.3	1.6	31.7	0.3	5.9	1.8	3.2	7.2
Heating Equipment (more than one may apply)											
Heat Pumps	59.3	3.1	9.9	6.0	1.5	22.8	0.4	5.2	1.3	2.8	6.2
Packaged Heat Pumps	66.0	3.3	11.2	6.1	1.4	25.9	0.4	6.0	1.6	3.2	6.9
Split-System Heat Pumps	52.6	2.3	9.1	7.0	1.4	19.6	Q	4.3	0.8	1.8	5.8
Individual Room Heat Pumps ..	55.1	3.1	9.4	6.2	1.9	22.3	0.3	2.7	0.8	2.9	5.3
Furnaces	38.8	1.8	4.0	4.3	0.7	14.6	0.3	6.3	0.7	1.4	4.8
Individual Space Heaters	44.9	2.9	4.8	5.1	0.9	18.0	0.2	4.9	0.8	2.0	5.2
District Heat	61.4	0.5	4.2	12.8	0.6	26.9	0.1	2.1	0.9	5.5	7.8
Boilers	49.4	1.3	6.2	8.2	0.6	19.9	0.2	2.9	1.2	2.7	6.2
Packaged Heating Units	58.7	2.8	8.7	6.6	1.2	21.3	0.6	7.4	1.4	2.6	6.2
Other	51.9	3.1	6.4	6.2	1.0	19.8	0.2	5.7	0.8	2.5	6.3
Cooling Equipment (more than one may apply)											
Residential-Type Central											
Air Conditioners	41.3	1.7	5.3	6.1	1.0	14.3	0.4	5.3	0.7	1.4	5.1
Heat Pumps	60.5	2.9	10.1	6.0	1.5	23.1	0.4	6.0	1.3	2.8	6.4
Packaged Heat Pumps	66.3	3.3	10.9	5.8	1.4	26.2	0.4	6.6	1.6	3.2	7.0
Split-System Heat Pumps	53.5	2.1	9.4	7.2	1.4	19.2	Q	5.0	0.8	1.9	6.0
Individual Room Heat Pumps ..	58.3	2.9	10.3	6.6	1.7	23.3	0.3	3.7	0.9	2.9	5.8
Individual Air Conditioners	38.1	1.6	5.0	5.0	1.1	15.6	0.2	3.5	0.5	1.4	4.2
District Chilled Water	67.4	0.7	5.6	17.2	0.8	23.9	0.2	2.6	1.0	7.2	8.2
Central Chillers	71.9	1.9	10.5	12.0	0.9	29.1	0.3	2.3	2.0	4.3	8.5
Packaged Air Conditioning											
Units	52.7	2.1	7.2	6.0	0.9	19.9	0.5	6.8	1.0	2.4	5.9
Swamp Coolers	48.1	1.3	5.5	5.8	1.4	18.1	0.6	7.7	0.5	1.4	5.8
Other	61.3	2.1	9.3	8.5	0.4	23.2	0.2	Q	1.1	2.9	6.4
Main Equipment Replaced Since 1990 (more than one may apply)											
Heating	43.7	2.2	5.5	5.2	1.0	15.7	0.4	5.1	1.0	2.2	5.4
Cooling	46.5	2.0	5.9	5.7	0.9	17.3	0.3	5.2	1.1	2.6	5.4
Water Heating Equipment											
Centralized System	50.8	2.0	6.3	6.6	0.9	18.2	0.5	7.2	1.0	2.3	5.9
Distributed System	41.8	1.8	6.5	4.7	0.8	15.5	0.3	4.5	0.8	2.0	5.0
Combination of Centralized and Distributed System	63.4	2.1	8.5	8.6	1.1	26.4	0.3	3.3	1.8	4.2	6.9

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Table E4. Electricity Consumption (Btu) Intensities by End Use for Non-Mall Buildings, 2003

	Electricity Energy Intensity (thousand Btu/square foot)										
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Computers	Other
All Buildings*	48.0	1.8	6.3	6.1	0.8	18.1	0.3	5.6	1.0	2.3	5.6
Lighting Equipment Types (more than one may apply)											
Incandescent	52.1	1.9	6.7	6.7	0.9	20.9	0.4	5.0	1.2	2.7	5.8
Standard Fluorescent	49.4	1.9	6.5	6.3	0.8	18.5	0.4	5.8	1.1	2.5	5.8
Compact Fluorescent	60.4	2.2	8.0	8.6	1.0	23.6	0.4	5.0	1.5	3.2	6.9
High Intensity Discharge	54.6	1.8	6.4	8.2	0.8	22.9	0.3	4.0	1.1	2.9	6.3
Halogen	60.4	2.3	7.4	7.8	1.0	25.6	0.4	5.3	1.2	2.8	6.4
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Refrigeration Equipment (more than one may apply)											
Any Refrigeration.....	52.3	2.0	6.8	6.6	0.9	19.5	0.4	6.7	1.1	2.6	5.8
Commercial Refrigeration	66.8	2.3	8.9	8.8	1.2	24.3	0.8	10.6	1.0	2.6	6.3
Walk-In Units	73.5	2.4	9.7	9.8	1.3	26.6	1.0	12.3	1.1	2.8	6.6
Cases or Cabinets	70.5	2.4	9.4	9.1	1.2	25.6	0.9	11.7	1.1	2.6	6.6
Residential-Type Units	45.5	1.8	6.1	6.1	0.8	17.5	0.2	4.1	0.9	2.5	5.5
Vending Machines	56.2	1.9	7.4	7.8	0.9	22.2	0.3	5.2	1.3	3.1	6.2
No Refrigeration	25.7	1.1	3.7	3.3	0.4	10.9	Q	(*)	0.4	1.1	4.8
Office Equipment (more than one may apply)											
Computers	51.0	1.9	6.8	6.6	0.9	19.4	0.3	5.4	1.1	2.7	5.9
With Flat Screen Monitors	60.1	2.1	8.1	8.5	0.8	23.2	0.3	4.2	1.7	4.1	7.1
Dedicated Servers	56.0	2.0	7.5	7.7	0.8	21.9	0.2	4.5	1.6	3.4	6.3
Laser Printers	47.0	2.0	6.3	6.0	0.8	17.2	0.3	5.5	1.2	2.3	5.4
Inkjet Printers	56.5	1.9	7.8	7.5	0.9	22.3	0.3	4.9	1.2	3.2	6.6
FAX Machines	51.6	1.9	6.9	6.7	0.9	19.8	0.3	5.3	1.2	2.7	5.9
Photocopiers	51.0	1.8	6.9	7.1	0.7	20.1	0.2	4.0	1.3	2.9	6.0
Number of Computers											
None	25.9	1.0	2.6	1.9	0.6	8.5	0.4	7.2	0.1	N	3.7
1 to 4	42.2	2.1	4.7	3.6	1.1	13.4	0.8	10.7	0.4	0.4	4.8
5 to 9	38.1	2.0	5.4	3.8	0.6	14.1	0.3	5.6	0.6	0.9	4.8
10 to 19	43.1	1.6	5.9	5.0	0.7	16.3	0.2	6.0	0.7	1.3	5.3
20 to 49	55.1	1.7	7.2	7.6	0.9	21.7	Q	5.1	Q	2.2	6.7
50 to 99	48.1	1.7	7.0	7.1	0.9	20.1	0.1	2.1	1.1	2.7	5.4
100 to 249	55.0	2.3	8.0	9.2	0.9	21.2	0.1	2.4	1.0	3.7	6.1
250 or More	72.4	2.0	9.7	11.0	0.8	29.2	0.2	2.1	2.2	7.3	7.9
Number of Dedicated Servers											
None	37.2	1.5	4.6	3.9	0.8	12.8	0.5	7.1	0.3	0.9	4.7
1 to 4	48.4	2.1	6.6	6.5	0.8	18.7	0.2	5.3	0.7	2.0	5.4
5 to 9	64.8	1.9	9.4	10.3	0.9	25.8	Q	2.9	1.6	4.4	7.1
10 to 19	71.4	1.8	8.3	11.7	0.7	27.5	0.2	3.9	1.6	7.6	8.3
20 to 49	70.7	1.8	12.2	9.9	0.8	27.3	0.2	2.2	2.4	5.5	8.3
50 or More	79.8	2.4	7.2	8.3	0.6	33.6	Q	2.4	7.9	7.8	9.2
Number of Photocopiers											
None	39.6	1.9	4.5	3.4	1.0	12.6	0.7	9.8	0.2	0.7	4.8
One	38.3	1.7	4.7	4.3	0.6	14.5	0.2	6.0	0.6	1.1	4.8
2 to 4	46.8	1.7	6.6	6.9	0.8	17.9	0.2	3.9	1.3	2.2	5.3
5 to 9	58.6	2.0	8.1	9.4	0.8	22.0	0.2	2.6	1.4	5.3	6.8
10 or More	72.5	2.1	10.1	10.3	0.8	30.6	0.2	2.1	2.4	5.5	8.4

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Table E4. Electricity Consumption (Btu) Intensities by End Use for Non-Mall Buildings, 2003

	Electricity Energy Intensity (thousand Btu/square foot)										
	Total	Space Heating	Cooling	Ventilation	Water Heating	Lighting	Cooking	Refrigeration	Office Equipment	Computers	Other
All Buildings*	48.0	1.8	6.3	6.1	0.8	18.1	0.3	5.6	1.0	2.3	5.6
Energy-Related Space Functions (more than one may apply)											
Commercial Food Preparation....	61.9	2.3	8.7	9.1	1.3	21.9	1.0	8.3	1.0	2.5	5.9
Activities with Large Amounts of Hot Water	59.9	2.4	8.1	8.9	1.4	23.8	0.6	5.1	0.9	2.6	6.2
Separate Computer Area	57.7	2.0	8.1	8.6	0.9	22.9	0.2	3.2	1.7	3.8	6.3
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System.....	64.7	2.3	9.2	9.0	0.9	25.4	0.3	3.6	1.8	4.3	7.7
Economizer Cycle	66.7	2.4	8.6	9.7	1.0	26.4	0.3	4.6	1.7	4.3	7.6
HVAC Maintenance	52.8	1.9	7.1	7.0	0.9	20.1	0.4	5.5	1.1	2.7	6.1
Energy Management and Control System (EMCS)	61.1	1.9	9.1	10.2	0.9	23.6	0.3	2.6	1.7	3.9	6.9
Window and Interior Lighting Features (more than one may apply)											
Multipaned Windows	52.3	2.3	6.3	6.8	0.9	20.0	0.4	5.7	1.2	2.5	6.2
Tinted Window Glass	56.8	1.9	7.9	7.5	0.8	22.4	0.3	4.6	1.4	3.2	6.8
Reflective Window Glass	61.2	2.3	9.0	8.3	0.9	24.8	0.3	3.9	1.3	3.4	7.1
External Overhangs or Awnings	55.9	2.2	7.0	7.1	1.1	19.7	0.7	8.1	1.4	2.8	5.9
Skylights or Atriums	51.6	1.6	6.4	7.7	0.7	21.9	0.2	2.8	1.6	2.6	6.0
Daylighting Sensors	71.9	2.2	10.0	10.3	0.6	27.7	0.5	4.3	Q	4.2	8.2
Specular Reflectors	56.9	2.0	7.5	7.9	0.9	22.8	0.3	4.3	1.3	3.1	6.8
Electronic Ballasts	53.3	1.9	7.1	7.2	0.9	20.0	0.4	5.6	1.2	2.8	6.2
Energy Management and Control System (EMCS) For Lighting	65.1	2.0	9.8	9.1	0.9	26.1	0.2	3.1	Q	4.0	7.3
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)											
Heating	45.2	1.7	6.0	6.1	0.8	16.8	0.3	4.5	1.1	2.4	5.5
Cooling	47.0	1.7	6.5	6.4	0.8	17.5	0.3	4.6	1.0	2.6	5.6
Lighting	42.7	1.7	5.7	5.4	0.7	14.8	0.4	5.6	0.8	2.2	5.3
Office Equipment	37.2	1.5	5.5	5.0	0.7	13.3	0.2	4.2	0.7	1.3	4.7
Annual Consumption (kilowatthours)											
10,000 or Less	4.6	0.1	0.4	0.3	0.0	1.5	0.0	0.7	0.0	0.1	1.4
10,001 to 50,000	16.6	0.8	2.1	1.1	0.3	5.9	0.0	2.4	0.4	0.5	3.1
50,001 to 100,000	27.3	1.3	3.4	2.1	0.6	8.6	0.2	5.4	0.6	0.9	4.1
100,001 to 500,000	44.4	2.2	5.2	4.5	1.0	14.2	0.6	9.1	0.8	1.7	5.1
500,001 to 1,000,000	49.1	2.1	7.6	6.5	1.4	17.1	0.5	6.3	0.8	1.9	5.0
1,000,001 to 5,000,000	69.4	2.6	9.4	10.9	1.1	26.3	0.3	5.9	1.2	4.1	7.5
Over 5,000,000	84.1	1.8	10.9	11.4	0.8	38.8	0.3	3.2	2.4	4.9	9.6

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Table E4. Electricity Consumption (Btu) Intensities by End Use for Non-Mall Buildings, 2003

	Electricity Energy Intensity (thousand Btu/square foot)										
	Total	Space Heat-ing	Cool-ing	Venti-lation	Water Heat-ing	Light-ing	Cook-ing	Refrig-eration	Office Equip-ment	Com-puters	Other
All Buildings*	48.0	1.8	6.3	6.1	0.8	18.1	0.3	5.6	1.0	2.3	5.6
Provider of Purchased Electricity (more than one may apply)											
Local Utility	46.7	1.8	6.0	5.9	0.8	17.4	0.4	5.7	0.9	2.3	5.5
Some Other Provider	62.3	1.8	8.9	8.5	0.6	24.6	0.2	5.1	Q	3.3	7.1

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, malls represented 9.7 percent of total electricity consumption.

(*)=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.