

**3.6.8 Energy Benchmarks for Existing Large Office Buildings, by Selected City and End-Use**  
 (thousand Btu per square foot)

	IECC Climate Zone	Heating		Cooling		Water Heating		Ventilation	
		Post	Pre	Post	Pre	Post	Pre	Post	Pre
Miami	1A	0.3	0.8	21.9	24.5	0.3	0.2	3.1	3.5
Houston	2A	4.2	4.4	17.7	20.9	0.3	0.3	2.8	3.3
Phoenix	2B	3.0	3.3	16.2	18.3	0.3	0.3	3.2	3.7
Atlanta	3A	6.9	8.5	14.1	17.5	0.4	0.4	2.6	3.2
Los Angeles	3B	2.8	2.9	11.9	13.0	0.4	0.4	2.5	2.7
Las Vegas	3B	4.6	4.7	10.8	13.0	0.3	0.3	2.7	3.3
San Francisco	3C	5.0	6.4	5.6	6.6	0.4	0.4	1.8	2.1
Baltimore	4A	9.8	14.4	12.0	15.5	0.4	0.4	2.4	3.1
Albuquerque	4B	6.6	8.3	6.5	7.6	0.4	0.4	2.3	2.7
Seattle	4C	10.1	15.0	4.5	5.3	0.5	0.4	1.7	2.1
Chicago	5A	14.8	15.1	7.4	7.7	0.5	0.5	2.0	2.1
Boulder	5B	9.5	9.5	4.9	5.0	0.5	0.5	2.0	2.0
Minneapolis	6A	19.6	21.3	6.7	7.0	0.5	0.5	2.0	2.1
Helena	6B	14.2	15.7	3.7	3.8	0.5	0.5	1.8	1.9
Duluth	7	24.3	26.6	3.8	3.6	0.6	0.6	1.8	1.8
Fairbanks	8	45.9	47.9	2.7	2.2	0.7	0.6	2.0	1.7

Note(s): Commercial building energy benchmarks are based off of the current stock of commercial buildings and reflect 2004 ASHRAE 90.1 Climate Zones. They are designed to provide a consistent baseline to compare building performance in energy-use simulations. 'Post' refers to buildings construction in or after 1980. 'Pre' refers to buildings construction before 1980. The benchmark building had 498,407 square feet and 12 floors. Benchmark interior lighting energy = 16.07 thousand Btu/SF. Interior equipment energy consumption = 15.94 thousand Btu/SF.

Source(s): DOE/EERE/BT, Commercial Building Benchmark Models, Version 1.3\_5.0, Nov. 2010, accessed January 2012 at [http://www1.eere.energy.gov/buildings/commercial\\_initiative/new\\_construction.html](http://www1.eere.energy.gov/buildings/commercial_initiative/new_construction.html).