AIA 2030 Commitment

Deriving a Regional Average EUI

An essential feature of the AIA 2030 Commitment reporting tool compares an energy model derived pEUI to an average EUI. The tool's default average EUI varies by project type and is based on U.S. national averages. For each project, it is recommended that a regional average EUI be obtained in order to make a more meaningful comparison. The following guidance is offered as a means for obtaining regional average site EUIs for use on the Worksheet tab of the tool.

U.S. Projects

The United States has a robust public database of operational building energy use (the U.S. Energy Information Administration's Commercial Buildings Energy Consumption Survey, or CBECS) and a powerful, free online tool which analyzes this and other data (U.S. Environmental Protection Agency's Energy Star Target Finder). For many building types a regional 'Median Building Site Energy Use Intensity' is easily obtained via Target Finder analysis; this number is appropriate for use as a 'Regional Average Site EUI'. See www.energystar.gov/targetfinder for more information. For building types not analyzed by Target Finder, additional data sources may exist, such as Labs. For example, a regional average EUI for a laboratory project might be obtained by using the Labs21 Energy Benchmarking Tool.

Canada Projects

Canada also has a robust public database of operational building energy use (Natural Resources Canada Office of Energy Efficiency's Commercial and Institutional Consumption of Energy Survey, or CICES). Architecture 2030 provides 'Canadian Target Tables' which summarize relevant CICES data www.architecture2030.org/multimedia/publications. Note: to convert from GJ/m^2 to kBtu/sf, multiply by 88.06. (1 GJ = 947.8171 kBtu; 1 m^2 = 10.7639 sf)

International Projects

Availability of operational building EUI datasets outside of North America vary by country. If such information is not available for a project location, a climate zone equivalent US zip code and Target Finder can be used to derive a comparative EUI. Refer to the following list of international cities and climate zone equivalent US zip codes. This zip code may be used in Target Finder to yield a regional 'Median Building Site Energy Use Intensity' which can be used as a 'Regional Average Site EUI' on the Worksheet tab of the AIA 2030 Commitment Reporting Tool.

Country	City	Climate Zone Equivalent U.S. Zip Code
Argentina	Buenos Aires	83104
Australia	Melbourne	83104
Australia	Perth	89101
Australia	Sydney	83104
Austria	Vienna (Wiener Neustadt)	60602
Bahamas	Nassau	33130
Belgium	Brussels	98181
Brazil	Brasilia	77010
Brazil	Rio de Janeiro	33130
Brazil	Sao Paulo	77010
Bulgaria	Sophia	98181
Chile	Santiago	98181
China	Beijing	21202
China	Chengdu/Chongqing	83104
China	Guangzhou	77010
China	Hainan	33130
China	Harbin	59601
China	Hong Kong	33130
China	Shanghai/Nanjing	83104
China	Shenyang	55402
China	Urumqi	55402
China	Wuhan	83104
China	Xi'an	21202
China	Yumen	59601
Columbia	Cartagena	33130
Costa Rica	San Jose (Juan Santamaria Int)	77010
Egypt	Cairo/Giza	85004
El Salvador (Guatemala)	San Salvador (Guatemala)	77010
France	Marseille	94109
France	Paris	94109
Germany	Berlin	98181
Germany	Frankfurt	98181
Germany	Munich	98181
Guam	Hagatna	33130
Haiti (DominicanRepublic)	Port-au-Prince (Santo domingo)	33130

India	Bangalore	33130
India	Cochin	33130
India	Delhi	33130
India	Hyberabad	33130
India	Kolkata	33130
India	Mumbai	33130
Indonesia	Jakarta	33130
Ireland	Dublin	98181
Israel	Jerusalem	83104
Italy	Rome	94109
Italy	Syracuse	85004
Italy	Milan	21202
Japan	Tokyo	83104
Jordan	Amman	89101
Kenya	Nairobi	94109
Korea	Seoul	21202
Kuwait	Kuwait City	no comp
Malaysia	Kuala Lumpur	33130
Mexico	Acapulco (Puerto Vallarta)	33130
Mexico	Cabo (Puerto Vallarta)	no comp
Mexico	Cancun	33130
Mexico	Mexico City	89101
Mexico	Monterrey	89101
Mexico	Oaxaca (Guanajuato)	83104
Mexico	Puerto Vallarta	33130
Mexico	Veracruz	21202
Nicaragua	Managua	33130
Norway	Oslo	55402
Panama	Panama City (Marcos A Gelabert I)	33130
Peru	Lima	85004
Philippines	Manila	33130
Portugal	Lisbon	21202
Puerto Rico	San Juan	33130
Qatar	Doha	no comp
Russia	Moscow	55402
Russia	St. Petersburg	59601
Saudi Arabia	Jeddah	no comp
Saudi Arabia	Riyadh	33130

Senegal	Dakar	no comp
Singapore	Singapore	33130
South Africa	Johannesburg	87102
Switzerland	Zurich	60602
Taiwan	Taipei	77010
Thailand	Bangkok	33130
Tunisia	Tunis	89101
Turkey	Istanbul	21202
United Arab Emirates	Abu Dhabi/Dubai	no comp
United Kingdom	Belfast	60602
United Kingdom	Edinburgh	60602
United Kingdom	London	21202
United Kingdom	Manchester	60602
Vietnam	Hanoi	33130
Vietnam	Ho Chi Minh City	33130

For locations which are not included on this list, the Climate Zone Equivalent US Zip Code Calculator tool may be used to establish a climate zone equivalent US zip code. Though equivalent US zip codes do not exist for all international locations, this will be a helpful method for many international projects, with use types included in Target Finder.