

6.2 Project Data

6.2.1 General Information

Project Name

| | |
|---------------------------|---|
| <i>Applicability</i> | All Projects |
| <i>Definition</i> | Name used for the project, if one is applicable |
| <i>Units</i> | Text |
| <i>Input Restrictions</i> | Input is optional for the proposed design |
| <i>Baseline Rules</i> | Not applicable |

Project Address

| | |
|---------------------------|--|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | Street address, city, state, and zip code |
| <i>Units</i> | Text |
| <i>Input Restrictions</i> | Input is mandatory for the proposed design |
| <i>Baseline Rules</i> | Not applicable |

Project Owner

| | |
|---------------------------|---|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | Owner(s) of the project or individual or organization for whom the building permit is sought. Information should include name, title, organization, email, and phone number |
| <i>Units</i> | Data structure: Contact |
| <i>Input Restrictions</i> | Input is optional for the proposed design |
| <i>Baseline Rules</i> | Not applicable |

Architect

| | |
|---------------------------|--|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | Architect responsible for the building design. Information should include name, title, organization, email, and phone number |
| <i>Units</i> | Data structure: Contact |
| <i>Input Restrictions</i> | Input is mandatory for the proposed design |
| <i>Baseline Rules</i> | Not applicable |

HVAC Engineer

| | |
|---------------------------|--|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | HVAC Engineer responsible for the building design. Information should include name, title, organization, email, and phone number |
| <i>Units</i> | Data structure: Contact |
| <i>Input Restrictions</i> | Input is mandatory for the proposed design. Information should include name, title, organization, email, and phone number |
| <i>Baseline Rules</i> | Not applicable |

Lighting Engineer/Designer

| | |
|---------------------------|---|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | Lighting Engineer/Designer responsible for the building design. Information should include name, title, organization, email, and phone number |
| <i>Units</i> | Data structure: Contact |
| <i>Input Restrictions</i> | Input is mandatory for the proposed design |
| <i>Baseline Rules</i> | Not applicable |

Energy Modeler

| | |
|---------------------------|--|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | Individual responsible for performing the rating analysis. Information should include name, title, organization, email, and phone number |
| <i>Units</i> | Data structure: Contact |
| <i>Input Restrictions</i> | Input is mandatory for the proposed design |
| <i>Baseline Rules</i> | Not applicable |

Date

| | |
|---------------------------|---|
| Applicability | All projects |
| Definition | Date of completion of the rating analysis or the date of its most-recent revision |
| Units | Date format |
| Input Restrictions | Input is mandatory for the proposed design |
| Baseline Rules | Not applicable |

6.2.2 Baseline Standard

| | |
|---------------------------|--|
| Purpose | |
| Applicability | All Projects |
| Definition | The purpose for which the COMNET software is used: The modeling rules and procedures for most of the building descriptors are triggered by this choice. |
| Units | List of COMNET supported purposes |
| Input Restrictions | Compulsory input |
| Baseline Rules | The definition of the baseline building is derived from this input, when applicable. |

| | |
|--------------------------------|--|
| Building Classification | |
| Applicability | When the whole building method is used instead of the space-by-space method of classifying activity in the building |
| Definition | The building type or principle activity. One of two available classification methods for identifying the function of the building or the functions of spaces within the building, which in turn determine energy-related requirements for the baseline building design. Appendix B lists the building classifications that are available under the building area method. |
| Units | List: Choose a building activity from Appendix B or select "Space-by-Space" if the space-by-space method is used. |
| Input Restrictions | For multi-use buildings, the building may be divided and a different building classification may be assigned to each part. Either the building classification method or the space-by-space classification method must be used, but the two classification methods may not be mixed within a single rating. |
| Baseline Rules | The proposed design designations apply to the baseline building. |

| | |
|---------------------------|---|
| Baseline Standard | |
| Applicability | All projects |
| Definition | The baseline standard that defines the baseline building. ASHRAE Standard 90.1-2001 is the baseline standard for tax deduction calculations. ASHRAE Standard 90.1-2007 is the baseline standard for green building ratings. This is determined from the Purpose (see above) and it may not be necessary to enter it explicitly. |
| Units | List: Either ASHRAE Standard 90.1-2001, 2007 or 2010, depending on Purpose (see above). |
| Input Restrictions | None |
| Baseline Rules | Not applicable |

| | |
|-------------------------------|--|
| Percent Savings Method | |
| Applicability | Tax deduction calculations and green building ratings |
| Definition | The method used to calculate percent savings. For tax deductions, only regulated energy is addressed in the numerator and denominator of the percent savings calculation, while with green building ratings, all energy uses in the building are accounted for. Regulated energy includes interior lighting, heating, cooling, fans and hot water. Non-regulated energy is everything else. The same equation is used with both methods (see Equation Figure 6.2.2-1 [1]), however, the Q term only includes regulated energy for tax deductions, but total energy for green building ratings. |

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Figure 6.2.2-1: "Percent Savings Method Equation"

| | |
|---------------------------|---|
| Units | List |
| Input Restrictions | This building descriptor is determined from the purpose and is not generally input directly by the software user. |
| Baseline Rules | Not applicable |

6.2.3 Geographic and Climate Data

The following data needs to be specified or derived in some manner. Software developers may use any acceptable method to determine the data. For instance, zip code could be entered and every thing else could be derived from this. Alternatively, state, county and city could be entered and the other variables could be derived from those. If the software allows for the parameters to be individually specified, then data validation should be employed to verify that the inputs are consistent with each other.

| | |
|----------------------|--|
| Zip Code | |
| Applicability | All projects |
| Definition | One of approximately 44,000 postal designations in the United States |

| | |
|-----------------------------------|---|
| Definition | One of approximately 17,000 postal designations in the United States |
| Units | List |
| Input Restrictions | None |
| Baseline Rules | Not applicable |
| Latitude | |
| Applicability | All projects |
| Definition | The latitude of the project site |
| Units | Degrees (°) |
| Input Restrictions | None |
| Baseline Rules | Not applicable |
| Longitude | |
| Applicability | All projects |
| Definition | The longitude of the project site |
| Units | Degrees (°) |
| Input Restrictions | None |
| Baseline Rules | Not applicable |
| Elevation | |
| Applicability | All projects |
| Definition | The height of the building site above sea level |
| Units | Feet (ft) |
| Input Restrictions | None |
| Baseline Rules | Not applicable |
| Thermal Zone | |
| Applicability | All projects |
| Definition | One of eight thermal zones defined in ASHRAE 90.1-2004 and later |
| Units | List |
| Input Restrictions | None |
| Baseline Rules | Used to determine building envelope and other criteria |
| Moisture Zone | |
| Applicability | All projects |
| Definition | One of three moisture zones defined in ASHRAE 90.1-2004 and later |
| Units | List: Moist (A), Dry (B), or Marine (C) |
| Input Restrictions | None |
| Baseline Rules | Used to determine building envelope and other criteria |
| Time Zone | |
| Applicability | All projects |
| Definition | The time zone measured from GMT |
| Units | List |
| Input Restrictions | Typically derived from other inputs such as zip code or state |
| Baseline Rules | Same time zone as the proposed design |
| Daylight Savings Time Observed | |
| Applicability | All projects |
| Definition | An indication that daylight savings time is observed. The schedules of operation are shifted by an hour twice a year and this affects the time occurrence of solar gains, temperature and other factors |
| Units | Boolean (True/False) |
| Input Restrictions | Typically derived from other inputs such as zip code or state |
| Baseline Rules | Same as the proposed design |
| State | |
| Applicability | All projects |
| Definition | The state where the project is located |
| Units | List |
| Input Restrictions | None |
| Baseline Rules | Not applicable |
| County | |

| | |
|---------------------------|---|
| Applicability | All projects |
| Definition | The county where the project is located |
| Units | List |
| Input Restrictions | None |
| Baseline Rules | Not applicable |

City

| | |
|---------------------------|---------------------------------------|
| Applicability | All projects |
| Definition | The city where the project is located |
| Units | List |
| Input Restrictions | None |
| Baseline Rules | Not applicable |

Weather Data for Simulation

| | |
|---------------------------|--|
| Applicability | All projects |
| Definition | The hourly (i.e., 8,760 hour per year) weather data to be used in performing the building energy simulations. Weather data must include outside dry-bulb temperature, outside wet-bulb temperature, atmospheric pressure, wind speed, wind direction, cloud amount, cloud type (or total horizontal solar and total direct normal solar), clearness number, ground temperature, humidity ratio, density of air, and specific enthalpy. |
| Units | Various |
| Input Restrictions | Weather data should be representative of the long term conditions at the site |
| Baseline Rules | Weather data shall be the same for both the proposed design and baseline building |

Ground Reflectance

| | |
|---------------------------|---|
| Applicability | All projects |
| Definition | Ground reflectance affects daylighting calculations and solar gain. The reflectance can be specified as a constant for the entire period of the energy simulation or it may be scheduled, which might be appropriate to account for snow cover in the winter. |
| Units | Data structure: schedule, fraction |
| Input Restrictions | Default of 0.30 |
| Baseline Rules | Ground reflectance shall be the same for both the proposed design and the baseline building when it is specified to capture snow cover. When specific design features are incorporated to increase or reduce reflectance for the purpose of enhancing daylighting, there can be variation between the proposed design and the standard design, when appropriately documented. |

6.2.4 Building Site Characteristics

Shading of Building Site

| | |
|---------------------------|---|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | Shading of building fenestration, roofs, or walls by other structures, surrounding terrain, vegetation, and the building itself |
| <i>Units</i> | Data structure |
| <i>Input Restrictions</i> | The default is for the site to be unshaded. The user may input the necessary information to model shading of the building site by any permanent object or feature likely to significantly reduce incident solar loads on the building site. Permanent here means likely to remain for the life of the building or likely to be replaced by objects that will produce similar shading over the life of the building. |
| <i>Baseline Rules</i> | The proposed and baseline building designs are modeled with identical assumptions regarding shading of the building site. |

6.2.5 Calendar

Year for Analysis

| | |
|---------------------------|---|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | The calendar year to be used for the annual energy simulations. This input determines the correspondence between days of the week and the days on which weather events on the weather tape occur and has no other impact. |
| <i>Units</i> | List: choose a year (other than a leap year). |
| <i>Input Restrictions</i> | Any calendar year that does not include a leap year. |
| <i>Baseline Rules</i> | Same calendar year as the proposed design |

Schedule of Holidays

| | |
|----------------------|--|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | A list of dates on which holidays are observed and on which holiday schedules are used in the simulations. |

| | | |
|---------------------------|---|-----------------------------|
| <i>Definition</i> | A list of dates on which holidays are observed and on which holiday schedules are used in the simulations | |
| <i>Units</i> | Data structure | |
| <i>Input Restrictions</i> | The following ten holidays represent the default set. When a holiday falls on a Saturday, the holiday is observed on the Friday proceeding the Saturday. If the holiday falls on a Sunday, the holiday is observed on the following Monday. | |
| | New Years Day | January 1 |
| | Martin Luther King Day | Third Monday in January |
| | Presidents Day | Third Monday in February |
| | Memorial Day | Last Monday in May |
| | Independence Day | July 4 |
| | Labor Day | First Monday in September |
| | Columbus Day | Second Monday in October |
| | Veterans Day | November 11 |
| | Thanksgiving Day | Fourth Thursday in November |
| | Christmas Day | December 25 |
| | Other holiday sets may be observed when input by the user. | |
| <i>Baseline Rules</i> | The baseline building model shall observe the same holidays specified for the proposed design | |

6.2.6 Energy Price Data

Not applicable for Design to Earn ENERGY STAR.

The default energy rates for electricity and gas are shown in Chapter 5. Tables are provided for each of the thermal and moisture zones that include time-of-use rates for electricity and seasonal rates for gas, steam and chilled water.

| Currency | |
|------------------------------|--|
| <i>Applicability</i> | All projects |
| <i>Definition</i> | The currency used to compare the proposed design and the baseline building |
| <i>Units</i> | List: local energy costs, default time-of-use energy costs, EPA source energy, or site energy. |
| <i>Input Restrictions</i> | The default is time-of-use energy costs specified in Chapter 5. |
| <i>Baseline Rules</i> | Same as the proposed design |
| Local Electric Utility Rates | |
| <i>Applicability</i> | When Currency (see above) is "local energy costs" |
| <i>Definition</i> | The local utility rate for electricity delivered to the building. The utility rate data entered under this descriptor may include a variety of rate features, such as demand charges, time of day rates, service charges, and taxes. |
| <i>Units</i> | Data structure |
| <i>Input Restrictions</i> | None |
| <i>Baseline Rules</i> | The baseline building shall use the same utility rate as the proposed design. |
| Local Gas Utility Rates | |
| <i>Applicability</i> | When Currency (see above) is "local energy costs" |
| <i>Definition</i> | The utility rates for natural gas delivered to the building. The utility rate data entered under this descriptor may include seasonal variations, service charges, and taxes. |
| <i>Units</i> | Data structure |
| <i>Input Restrictions</i> | None |
| <i>Baseline Rules</i> | The baseline building shall use the same utility rate as the proposed design. |
| Local Other Utility Rates | |
| <i>Applicability</i> | When Currency (see above) is "local energy costs" |
| <i>Definition</i> | The utility rates for chilled water, steam or other energy sources delivered to the building. The utility rate data entered under this descriptor may include seasonal variations, service charges, taxes, and other factors. |
| <i>Units</i> | Data structure |
| <i>Input Restrictions</i> | None |
| <i>Baseline Rules</i> | The baseline building shall use the same utility rate as the proposed design. |

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Source URL: <http://www.comnet.org/mgp/content/62-project-data>

Links:

[1] <http://www.comnet.org/mgp/content/622-baseline-standard#percent-savings-method-equation>