



Renewable Energy Generation

Generating renewable energy on-site protects projects from energy price volatility and reliance on the grid while reducing wasted energy lost in transmission. Although this credit encourages on-site generation, some renewable energy systems that use fuels produced off-site (e.g. landfill gas) can still be eligible to receive points, provided certain conditions are met, such as having a minimum 10 year contract with a qualified provider. On-site generation will allow the project to achieve **net zero** energy consumption, meaning the total amount of energy used by the building on an annual basis is roughly equal to the amount of renewable energy created on-site. Net zero buildings still produce greenhouse gases because they will also need to draw from the grid on cloudy, non-windy days, or during the evening when grid power is still the main energy source.

Renewable energy sources allowable by the **Renewable Energy Production credit** include:

- Biofuel (not all types allowed)
- Wave and tidal energy
- Wind
- Low-impact hydroelectricity
- Geothermal (not all types allowed)
- Photovoltaic
- Solar thermal

To offset building energy **costs** (not consumption), using renewable energy systems, the percentage of renewable energy to offset building energy costs must be calculated as follows:

- $\% \text{ renewable energy} = \frac{\text{equivalent cost of usable energy produced by the renewable energy system}}{\text{total building annual energy cost}}$. Up to **3 points** can be earned for 1%, 3%, 5% and 10% use of renewable energy.
- If the project used the whole-building energy simulation option in the Minimum Energy Performance prerequisite, use the building's annual energy that had been calculated. If not, use the U.S. Department of Energy's **Commercial Buildings Energy Consumption Survey (CBECS)** database to estimate energy use and cost.

