

Green Building Guidelines

The Meadows Foundation's Green Building Performance Goals

The Meadows Foundation does <u>not require</u> green building strategies to be eligible for grant support; however, the Foundation believes that green building is a social value and looks with favor on those construction projects that include significant energy savings and other environmentally friendly features. Below are the Foundation's energy- and water-related goals for building projects:

- 30% reduced operational energy use for new buildings
- 15% reduced operational energy use for existing buildings
- 35% of grid-connected energy is provided by green-e certified renewable energy sources
- 20% reduced indoor potable water use
- Landscape plants comprised of water-wise native and non-invasive adapted plant species

As an energy-saving strategy, the Foundation encourages grantees to consider renovating existing buildings rather than new construction whenever appropriate. Grant proposals for new construction and renovations of existing buildings should include a green development plan comprised of the following:

- The strategies that will be used to achieve the performance goals above
- A description of the green building rating system that will be used, if any
- A statement of commitment that these goals will be pursued throughout the course of design and construction.

Measuring Green Building Performance Goals

Grantees are encouraged to use energy modeling, which is a method of calculating the energy use of a building during the design phase, to demonstrate compliance with the performance goals.

Grantees will be asked to provide The Meadows Foundation with energy and water consumption data as part of their grant reporting requirements. This should include a comparison of the actual consumption data and the green development plan targets that resulted from the energy modeling process.

- Reduce operational energy use for new and existing buildings
 - Use on-site non-polluting and renewable energy, including solar, wind, geothermal, low-impact hydro, biomass, and bio-gas strategies
 - Only light exterior areas as required for safety and comfort
 - Provide individual lighting controls and light sensors to control for areas not in use
 - Use operable windows
 - Provide individual air conditioning/heater controls to allow adjustments to meet individual or group needs
 - Design the building to maximize interior daylight
 - Use Energy Star appliances and Energy Star Advanced Lighting Package
 - o Construct a cool roof that transfers less heat to the building, resulting in less energy use to cool
 - High-efficiency heating, cooling, and ventilation systems
- Reduce indoor potable water use
 - Use water-conserving fixtures (toilets, faucets, showers), occupant sensors, composting toilet systems, and non-water using urinals
 - o Reuse rainwater or greywater for non-potable uses such as toilet and urinal flushing

- Locate water heaters in close proximity to fixtures
- o Install hot water on demand system
- Landscape plants comprised of water-wise native and non-invasive adapted plant species o Reuse collected rainwater for landscape irrigation
- Integrated design process
 - Assemble the design and development team as early in the development process as possible to generate the green development plan
 - Collaborative participation by all members of the design and development team throughout the design and construction process to execute the green development plan

Select National Green Building Standards

More information and guidance can be found through the <u>U.S. Environmental Protection Agency</u>.

Leadership in Energy & Environmental Design Green Building Rating System (LEED®): A series of rating systems aimed at increasing the environmental and health performance of buildings, sites and structures and of neighborhoods. LEED® covers the design, construction, and operation of all types of buildings.

<u>International Green Construction Code (IgCC)</u>: A model code that contains minimum requirements for increasing the environmental and health performance of buildings, sites and structures. Generally, it applies to the design and construction of all types of buildings except single- and two-family residential structures, multifamily structures with three or fewer stories, and temporary structures.

<u>National Green Building Standard (ICC 700)</u>: A rating and certification system that aims to encourage increased environmental and health performance in residences and residential portions of buildings. Its criteria apply to the design and construction of homes and subdivisions.

<u>Green Globes™</u>: A series of rating and certification systems that encourage improved environmental and health performance for all types of buildings except residential structures. Green Globes™ is administered in the U.S. by the Green Building Initiative.

<u>Living Building Challenge™</u>: A certification system that advocates for transformation in the design, construction, and operation of buildings. In addition to encouraging improved environmental and health performance, it supports building structures that are restorative, regenerative, and an integral component of the local ecology and culture.

Select Local Green Building Standards

Grantees should be aware that several Texas cities have adopted green building standards and projects may be subject to these standards. For a sample list of local green building standards, you may visit the following websites.

Austin: Austin Energy Green Building (AEGB)

Dallas: 2015 City of Dallas Green Ordinance

Houston: Green Building Resource Center

San Antonio: Build San Antonio Green