Building GREEN in Greensburg

Credit: Lynn Billman, NREL

City Hall Building

Destroyed in the tornado, City Hall was completed in October 2009 and built to achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) Platinum designation. The 4,700-square-foot building serves as a symbol of Greensburg's vitality and leadership in becoming a sustainable community where social, environmental, and economic concerns are held in balance. It houses the City's administrative offices and council chambers, and serves as a gathering place for town meetings and municipal court sessions. According to energy analysis modeling results, the new City Hall building is 38% more energy efficient than an ASHRAE-compliant building of the same size and shape.

ENERGY EFFICIENCY FEATURES

- A ***well-insulated building envelope*** with an R-Value of R-22 and made from insulated concrete forms maximizes energy efficiency
- ***Daylighting*** floods the interior with natural light to reduce artificial lighting loads
- ***Energy-efficient windows*** reduce heat loss in winter and keep the building cool in summer
- ***Energy-efficient lights*** save energy at night
- ***Lighting controls*** reduce electricity consumption
- ***Drought-tolerant plants*** on the roof provide shade in summer and keep the building cooler
- The all-electric heating and hot water system takes advantage of the abundant renewable electricity from the ***Greensburg Wind Farm***
- A ***solar-powered outdoor sign***, designed to resemble the exterior of City Hall, gathers and stores electricity to illuminate the sign at night using energy-efficient light emitting diodes (LEDs).

RENEWABLE ENERGY FEATURES

- A 4.8 kilowatt ***photovoltaic system*** on the roof produces electricity for the building
- An open-loop ***ground-source heat pump*** provides heating and cooling.

WATER EFFICIENCY

- ***Waterless*** urinals, dual-flush toilets, and low-flow faucets in the bathrooms reduce water consumption
- ***Native prairie plants*** are used for landscaping because they require less water
- ***Rainwater collection*** and ***recycled graywater*** are used for landscaping.

SUSTAINABLE MATERIALS AND CONSTRUCTION

- ***Reclaimed bricks*** from the storm are used for the exterior
- ***Recycled wood*** is used for the interior
- ***Existing top soil*** was conserved during construction.

AIR QUALITY

- ***Nontoxic products*** were used, such as paints with low levels of volatile organic compounds.

LEED RATING GOAL

- Platinum

Courtesy of City of Greensburg

U.S. DEPARTMENT OF ENERGY
Energy Efficiency & Renewable Energy

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