



SYSTEM SPECIFICATIONS

Location Mason City, Iowa

System Power 7,200W wind and solar system

Components (2) VFX inverter/chargers

OVERVIEW

Spatial Designs provides architectural consulting and design on diverse projects.

The architectural firm has been commissioned to work on more than 1,500 projects in 15 states across the U.S. and on one project in Africa, the range of which includes restaurants, banks, shopping centers, schools, fire stations, alternative-energy buildings and FEMA tornado shelters.

In 2003, Spatial Designs decided to apply its considerable project expertise to its own firm, by designing and building itself a new office. The long-term goal for Spatial Designs' office project was independence from the local utility, especially in light of previous power outages. For the new office, Spatial Designs wanted battery backup in addition to solar and wind energy resources.

CHALLENGE

- Build an energy-independent office that can remain on-line and operational when the grid is down
- Save energy costs with an efficient building design while showcasing dedication to green practices
- Establish best technological practices and systems to offer renewable energy-based projects to clients

SOLUTION

- The resulting system, which is constructed from aluminum and stainless steel to protect it from the marine environment, includes four panels per string, with each string mounted on a pair of rails
- If the system needs to be removed due to impending extreme weather conditions, each string of four modules can be quickly dismantled and easily transported to safety
- Installation has enough capacity for the owner to later use the system to power the entire property as an alternative to unreliable grid power

OUTCOME

- Spatial Designs generates nearly 100% of its power from renewable sources
- The renewable energy system supports all of Spatial Designs' heating and cooling needs in its 3,000 square-foot building, in a climate where the temperature can drop to -30°F
- Spatial Designs can continue work during power outages to meet client deadlines and budgets

