

Lewis and Clark Community College



Program Area:

Energy Program

County:

Madison

Grantee:

Lewis and Clark Community College

Grant Date:

November 2005, November 2007

Grant Amount:

293,850

Location:

East Alton, IL 62024

Lewis and Clark Community College received two grants totaling \$293,850 from the Foundation for the design and construction of the National Great Rivers Research and Education Center (NGRREC) as well as supplemental renewable energy systems. NGRREC was founded in 2002 to support the study of river systems and the surrounding areas. The research center was created through the collaboration of University of Illinois, the Illinois Natural History Survey and Lewis and Clark Community College. The Jerry F. Costello Confluence Field Station, as the new NGRREC building was named, achieved LEED Gold certification and contains laboratories and classrooms used for various programs that support the education of kindergarten through college students.

The Foundation supported the LEED design and commissioning for Confluence Station as well as daylighting solar tubes, a solar thermal system, and an interactive educational monitoring system. The building has an extensive amount of other unique energy efficiency measures including an ice storage system that creates ice overnight from cold river water or domestic water which is then used in the chilled water system to cool the building. An enthalpy heat wheel is used to heat the building in winter by transferring energy from warm exhaust air to pre-heat fresh incoming air. The building is surrounded by bioswales to limit the amount of runoff from storm water. Bioswales are areas where native plants are grown to naturally filter and treat water and prevent the negative impacts of runoff. A grey water recycling system collects and disinfects water from sinks to be reused to flush the toilets. Rain water is also collected to be used for irrigation of the surrounding landscape and the green roof. The award winning green roof mimics how plant species composition changes as elevation increases. The roof is angled so at the lowest elevation point there are native swamp species and at the highest point there are native desert species, including some native cacti. NGRREC has a great online educational system that details the sustainable features, research programs, and live energy monitoring to promote green building and energy efficiency.

Website

<http://www.ngrrec.org/>