

NU Ford Center Solar Array

Project Highlights and Results

- Northwestern University's first on-site renewable energy source that doubles as an educational tool for engineering students
- Design incorporated new micro inverter technology, web-based real-time energy values, self-ballasted system (no roof penetrations), and low-profile array
- 17kW photovoltaic solar array covers nearly all available area of Ford Engineering Building roof
- Roof location and ability to see equipment from ground level created visual/aesthetic constraints

Project Background

Owner:	Northwestern University
Location:	Evanston, IL
Team/Team Lead:	Don McLauchlan, Don Bezek
Elara Role:	Electrical Design
Type:	Renewable Energy Retrofit
Construction Cost:	\$200,000

Project Overview

Building Type:	Higher Education
Building Attributes:	17kW Rooftop Solar Array
Initial Construction:	2011
MEPPFIT Systems:	Solar Photovoltaic

Innovation

- Cost considerations and the use of new technology was paramount for this student-led project installed at the University's Engineering Building. Innovative project elements and solutions included:
 - Pre-purchase of equipment
 - New micro inverter technology
 - Web-based software application to provide real-time energy values
 - Installed self-ballasted system that negated need for roof penetrations
 - Low profile array to address visual/aesthetic constraints
- The photovoltaic solar array installation provides actual data for student analysis and significantly expands building occupant and student awareness of sustainable, renewable energy sources.

