

Worcester Polytechnic Institute

Worcester, Massachusetts



Worcester Polytechnic Institute is one of the nation's premier educational institutes. WPI's unique curriculum takes a 'learn by doing' approach to education. WPI students obtain a firm grounding in science and technology and then learn to apply their knowledge by tackling real problems through the intense project based curriculum. The twin principles of theory and practice are interwoven in a curriculum that thoroughly prepares students for life and work in today's technological world.



Solution:

By installing a Heliotronics data monitoring system, the WPI Community Solar Initiative has created an exciting Solar Learning Lab™ at the WPI Campus. The system includes the Heliotronics' *Feynman*™ monitoring system and large plasma display screens for the educational software. The data from the Solar Learning Lab™ is accessible throughout the school network and on the WPI website thus making it widely available for educational use.

Background:

This installation and the WPI Community Solar Initiative was the product of WPI's unique project-based curriculum. Two teams of four students participating in their Interactive Qualifying Project (a required part of the WPI curriculum), set out on the mission to promote solar education and awareness at WPI and in the Worcester area. Establishing a solar installation at WPI designed for educational purposes was one of their goals. Their goals also included implementing educational programs about renewable energy topics in Worcester Public Schools and WPI K-12 Outreach Programs.



Funding:

Funding for the The Solar Learning Lab™ came from a donation of \$10,000 from the WPI Class of 1975. Additional funding was provided by Mass Energy through grant money from the Massachusetts Technology Collaborative.

Marketing Value:

Channel 3, New England Cable News, and the Worcester Telegram and Gazette covered the ribbon cutting ceremony. Interviews with students and faculty were aired throughout central Massachusetts in numerous broadcasts. WPI's *Transformations* journal will also deliver the story to thousands of homes showcasing WPI's commitment to green power.



Heliotronics, Inc.
1083 Main Street
Hingham, MA 02043-3961
Info@Heliotronics.com
508-435-3032



Project Snapshot

Data Monitoring System: Heliotronics Feynman™ Package

System Specs: monitors real-time PV power and energy output, system efficiency, array efficiency, inverter efficiency, AC/DC current and voltage, avoided emissions, irradiance, PV module temperature, ambient temperature, and wind speed.

User Interface: Heliotronics' SunViewer™ educational display software accessible through presentation computer and exhibited on plasma display screens

PV Installation: 4 RWE Schott Photovoltaic Modules

PV System Capacity: 1.08 kW AC

Estimated Annual Energy Production: 1296kWh/year

Installation team: WPI Plant Services, WPI Network Operations, and WPI student team members.

