



Boston Nature Center

Boston, Massachusetts



The Boston Nature Center, an exciting and innovative urban environmental education center, is a remarkable 65 acre oasis of wild landscape. The Center's nature walks, informal education programs, outreach activities and urban community gardens will focus on an audience that goes largely unserved by suburban or rural nature centers.



Solution:

By installing a Heliotronics data monitoring system, the Massachusetts Audubon Society has created an exciting Solar Learning Lab™ at the Boston Nature Center. Mass Audubon is using the Solar Learning Lab™ to educate the public about renewable energy technologies and energy efficiency. The system includes Heliotronics' fully-featured *Franklin* monitoring system with an interactive touch-screen kiosk in the exhibit area of the Nature Center.

Background:

The George Robert White Environmental Conservation Center, managed by Mass Audubon, is a model of environmental sustainability and energy efficiency. Mass Audubon serves both as a leader and as catalyst for conservation, by stimulating individual and institutional action through education, advocacy, and habitat protection. It is using the Boston Nature Center building as a unique opportunity to educate the public about the impact that our energy use can have on the environment. The building, which includes photovoltaic roof shingles, a geothermal heat pump, solar hot water, day lighting and energy efficient features, was designed to use 30-35% less energy than a traditionally constructed building.

“Boston’s ‘Building that Teaches’ demonstrates that green, energy efficient buildings make environmental and economic sense. We need to learn and apply all that we can from its high performance operation.”

-Boston Mayor Thomas Menino

“The PV system will be a great educational tool for the many students and visitors that come to the Boston Nature Center.”

-Laura Johnson, President of Mass Audubon



Project Snapshot

Data Monitoring System: Heliotronics Franklin Package
System Specs: monitors real-time PV power output, energy, system efficiency, avoided emissions, irradiance, PV shingle temperature, ambient temperature, wind speed, wind direction, barometric pressure, rainfall, and relative humidity

User Interface: Touch-Screen Kiosk with SunViewer educational display software

PV Installation: 233 Photovoltaic Shingles

Installation team: Solar Works, Inc. and The Copper and Slate Co.

PV System Capacity: 2.8 kW AC

Annual Energy Production: 4123kWh/year

**This system will prevent the release of 7113lbs of carbon dioxide, 16.99lbs of sulfur dioxide, and 14.35lbs of nitrogen oxides.



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