

Case Study

Massachusetts Maritime Academy - Buzzards Bay



Overview

The Massachusetts Maritime Academy is a 4-year college located on the mouth of the Cape Cod Canal in Massachusetts. The Academy is well known in the region for its programs in Facilities Management, Energy Systems Engineering, Marine Engineering, Marine Safety & Environmental Protection, and much more. MMA had an Apricus solar thermal array installed on the Alumni Gymnasium in September of 2015. The gymnasium holds a 20,000 gallon pool for training activities and athletics. The system was designed & built by Renewable Energy Systems of Cohasset, MA.

Metering

The system features the first Massachusetts Department of Energy Research (DOER) approved revenue-grade thermal metering system. It includes 2 Onicon magnetic flow meters and a SolarWave Inc datalogger. The meters provide highly accurate readings of the energy delivered by the system for both pool heating and hot water heating, and provides all required data for MassCEC rebates and DOER grants. The SolarWave online portal [ThermalGrid](#) allows the Academy to display real-time data anywhere via wifi.



Project Summary:

Location:	Buzzards Bay, MA, USA
Array Size:	24 AP-30 collectors
Peak Output:	50 kW / 150 kBtu/h
Annual Energy Output:	>2500 Therms
Annual CO ₂ Offset:	>29,000 lbs.
System Format:	Drainback Closed Loop
Application:	Pool & Domestic Water
Storage Capacity:	800gal Atmospheric
Backup Heating:	Gas boiler

Contact Information:

Apricus:	www.apricus.com
R.E.S:	www.ressolar.com
MMA:	www.maritime.edu
SolarWave:	www.solarwave.com
MassCEC:	www.masscec.com