

Hudson Valley Community College TEC-SMART Building

Malta, NY

Background

Hudson Valley Community College has built a 45,000-square-foot high-tech training center in the Saratoga Technology + Energy Park® (STEP®), where students will be surrounded by and educated in state-of-the-art green technologies: home energy efficiency, semiconductor manufacturing, alternative fuels, photovoltaic systems, as well as geothermal and wind energy systems. This state-of-the-art building achieved LEED® Platinum Certification.

EME Consulting Engineering Group (EME) was retained by NYSERDA to evaluate electric energy-efficiency opportunities for the TEC-SMART facility under the New Construction Program. EME identified cost-effective improvements to the building and its systems that will reduce its energy consumption, decrease demands on the utility's distribution system, increase occupant comfort, and decrease the environmental impacts of the construction process.

Among the energy-efficiency improvements implemented in the building were:

- High-performance building envelope components
- High-efficiency lighting and daylighting systems
- High-performance HVAC system including Trombe-wall, geothermal system
- Air-side heat recovery
- Air-side economizers
- Premium-efficiency motors
- Variable-speed drives

NYSERDA assisted with on-site solar-electric and wind-turbine power generation through the Research and Development Program.

Incentives and Results

NYSERDA's incentives of \$616,636 (for building energy savings, power generation, and LEED certification) will help TEC-SMART defray a portion of the implementation cost for improvements in electric energy efficiency. TEC-SMART's investment could result in:

- An efficient building consuming 33 percent less energy than a code-compliant building
- Annual energy savings of more than 251,698 kWh and 73 kW peak summer demand
- Annual energy cost savings of more than \$47,600 including renewables
- Simple payback (after incentive) of 5.8 years for project

To find out how you can reduce your energy consumption and costs, visit NYSERDA.NY.GOV.

