



"Bard College has been interested in incorporating energy-efficient measures in these projects from the start, and NYSERDA's assistance helped make it possible. These measures will reduce operating costs, reduce down time, and improve comfort and health in the dorm."

- Mark Primoff,
Spokesperson,
Bard College

Energy Efficiency Measures at New College Dorm Complex

Annandale-on-Hudson, Dutchess County

Background

Bard College has been committed to economical and environmental construction projects. The college is located on 500 acres and, as part of an expansion effort, sought to construct a nine-building dorm complex. Continuing a cooperative relationship, Bard College requested design assistance and implementation support from NYSERDA. Bard's commitment to high-efficiency geothermal heating and cooling played an important role in the project design.

As part of the **New York Energy SmartSM** New Construction Program, Bard College, Novus Engineering, P.C., and Reynolds Design Associates partnered with NYSERDA's technical assistance provider, Science Applications International Corporation (SAIC). A feasibility study was conducted evaluating energy-saving opportunities.

Recommendations

The technical assistance and design assistance recommended the following measures for the new dormitory complex construction:

- Computer modeling
- Improved building envelope
- Horizontal-axis washing machines
- Variable-speed drives for the geothermal loop
- Building Commissioning
- Air-to-air heat exchangers
- Geothermal heat pump system



Incentives and Results

NYSERDA provided Bard College with a **\$234,655** incentive that will help the college realize:

- Annual energy savings of \$36,830 (387,180 kWh)
- 242.1 kW peak-summer demand savings
- Simple payback of 2.8 years
- Reduced emissions of over 171 tons annually

New York Energy SmartSM

All **New York Energy SmartSM** programs are funded by a System Benefits Charge (SBC) paid by electric distribution customers of Central Hudson, Con Edison, NYSEG, Niagara Mohawk, Orange and Rockland, and Rochester Gas and Electric. NYSERDA, a public benefit corporation established by law in 1975, administers SBC funds and programs under an agreement with the Public Service Commission.

New York Energy SmartSM programs are designed to lower electricity costs by encouraging energy efficiency as the State's electric utilities move to competition. The programs are available to electric distribution customers (residential, commercial, institutional, and industrial) who pay into the SBC.



For more information about these services, contact NYSERDA
toll free 1-866-NYSERDA, locally (518) 862-1090,
or e-mail: info@nyserdera.org
www.nyserdera.org/programs/New_Construction/default.asp

