



LOCATION

Hopewell Valley
Regional School District
Pennington, NJ

Challenge

Hopewell Valley Regional School District sought to boost energy-efficiency throughout six school buildings and provide students and staff with improved indoor air quality (IAQ). Haglid Engineering & Associates (HEA) began the project with an audit of each school's energy consumption, using the EPA's ENERGY STAR® PortfolioManager® Tool and Energy Performance Rating System. After implementing the results into project models that illustrated viable solutions, HEA advised the district in making operational modifications and upgrade decisions, such as utilizing demand-side ventilation and solar electric systems.

Ultimately, Hopewell Valley Regional reduced its electricity consumption by 25 percent or 758,435 kWh/year. Heating and cooling loads came down by 30 to 40 percent. Return on investment was estimated at two years for ventilation retrofits and seven years for solar electric systems.

The HEA / Hopewell efforts resulted in the district's status as a winner of the New Jersey Clean Energy Program's *2008 Clean Energy Educator of the Year Award* for educating others about how to practically and effectively implement energy-efficient technologies.

(continued...)

Solutions

The selected projects included demand-side ventilation system retrofitting for thirteen classrooms around the Hopewell Valley district. This decision encouraged the recapturing of up to 80 to 95 percent of the thermal energy typically exhausted from an average classroom.

Additional projects included installing two solar electric systems, utilizing geothermal technologies, and building floor-to-ceiling windows for optimal lighting. All told, the projects totaled \$1 million. However, HEA helped secure \$300,000 worth of incentives from the New Jersey Clean Energy Program for the solar electric systems.

Going forward, HEA and Hopewell Valley will continue to track the district's energy bills, consumption, and savings to ensure continued success in keeping building occupants comfortable and enjoying optimal IAQ. Perhaps the most important result, though, is the real-world example the school district is setting in encouraging students and faculty to effectively save energy.