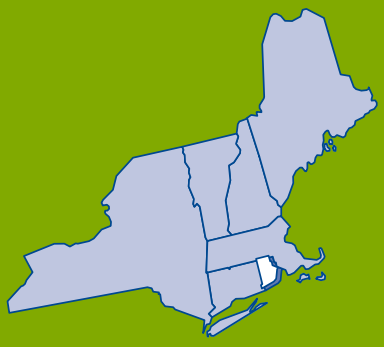


Rebuild America EnergySmart Schools Success Stories highlight schools and school districts that are making smart choices about energy, reducing energy and raising awareness of energy issues.

- ☐ New Building Design
- ☑ Existing Building Improvement
- ☑ Operations and Maintenance
- ☑ Renewable Energy Technologies
- ☐ Financing Building Improvements
- ☑ Energy Education

Park View Middle School

Students Making a Difference Through Energy Education and Action

Students at Park View Middle School in Cranston, RI, are becoming more knowledgeable about energy and helping their school become more energy efficient. The students are involved in a partnership with the *National Energy Education Development (NEED) Project*, the Rhode Island State Energy Office, and Narragansett Electric - National Grid to learn about energy and to raise awareness about the need to conserve energy and improve energy efficiency in their community. NEED is a Rebuild America/EnergySmart Schools Strategic Partner.

The Challenge

Students around the country need to learn about energy efficiency, and schools around the country need to reduce their energy consumption. Park View Middle School set out to accomplish both of those things by educating students on energy and then having them audit the school and make recommendations on improvements in its technology and operations.

The Solution

In August of 1999, students at Park View Middle School in the Providence suburb Cranston began a research project on lighting efficiency for their homes. Under the leadership of Joanne Spaziano, the students studied the life-cycle cost of compact fluorescent light bulbs and switched their own light bulbs out at home. Then they tackled an audit of the school library using the Lighting in the Library activity created by the National Renewable Energy Laboratory. Using the data they recovered from the library audit, the students moved on to implement NEED's Learning and Conserving program. They measured square footage, light levels and temperature in the school building.

Armed with that knowledge, the students researched the most economical methods for improving energy efficiency in the school - a lighting retrofit. They did their research and managed to secure a lighting retrofit rebate from Narragansett Electric-National Grid for the installation of new lighting at the school. The students then took steps to have the project approved and to create awareness in the greater school community about the potential for reducing energy use and costs through behavioral changes, inexpensive retrofits and other smart energy choices.

After preparing complete presentations for the administration - and with the support of Park View Principal Gary Spremullo - the students lobbied the Cranston Public Schools for approval to begin a comprehensive energy program at Park View in the

Continued on back

EnergySmart Schools
Rebuild America Schools
U.S. Department of Energy

U.S. Department of Energy
Energy Efficiency and Renewable Energy

Partnership Facts:

Name of Strategic Partner:
National Energy Education Development (NEED) Project

Targeted Building:
Middle school building

Space Improved:
172,175 sq. ft.; an additional 15,600 sq. ft. to be added

Park View Middle School
Enrollment: 833 students
Annual Energy Savings: $8,200; 102,000 kWh
Environmental Impact: Reduction in carbon dioxide by 228,420 pounds

Scope of Project:
Lighting retrofitting, energy management, educational programming, student auditing, solar panel installation

Project Funding:
Rhode Island State Energy Office; Narragansett Electric – National Grid; NEED; Solar Works Inc.; Cranston Public Schools; Park View Middle School NEED Team; Park View Middle School

Contact:
Joanne Spaziano, Energy Team Lead
Park View Middle School 401-785-8090 or rid23242@ride.ri.net

DOE Boston Regional Office:
Greg Davoren
JFK Federal Building, Suite 675
Boston, MA 02203
617-565-9700
www.eere.energy.gov/bro

For more information, visit the EnergySmart Schools Web site: www.energysmartschools.gov.

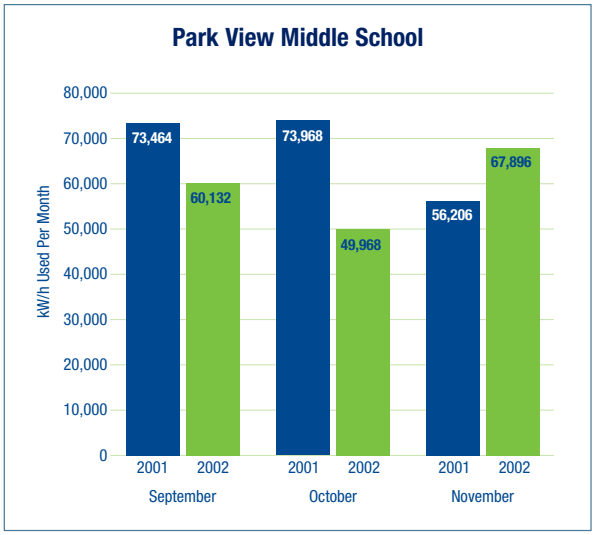
hope that their success would expand beyond Park View to other schools in the district. The school board and Superintendent Catherine Ciarlo approved the project.

The lighting retrofit started a wave of activity that included an audit of the entire school and recommendations to make energy improvements in the school. Those recommendations have been prioritized for implementation as funds become available. The school estimated energy savings of $5,000 in the first year from the lighting changes alone. In addition, it is estimated that the changes resulted in a reduction of carbon dioxide released by 228,420 pounds.

The lighting retrofit was completed in 2000. Solar photovoltaic panels with 2kW capacity were installed in August 2002. Energy education and management are ongoing.

Comparing electric bills from September to November 2001 and 2002, there is marked difference in kilowatt hours (kWh) of electricity usage.

Comparing the first three months of school year 2001 to the same period during 2002, with the difference being increased behavioral changes and the installation of solar cells on the school, 25,644 kWh were saved. Carbon dioxide emissions were reduced by 51,288 pounds and dollar savings were $684 per month with a projected annual savings of approximately $8,200.



The students have set their sights on other schools and are implementing outreach programs in partnership with Home Depot to help Rhode Island consumers understand the impact that energy-efficient lighting could have on their home energy bills. NEED workshops expanded the energy education programs to over 200 schools in Rhode Island during the 2002-2003 school year alone.

To learn more visit: www.eere.energy.gov

A Strong Energy Portfolio for a Strong America
Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

Rebuild America is a U.S. Department of Energy program that focuses on improving communities through energy-saving solutions.

Printed on paper containing at least 50% wastepaper, including 20% postconsumer waste.

July 2003