

# COMMUNITY GRANTS PROGRAM



## CASE STUDY

### CNY RPDB is Starting Early Teaching Conservation and Renewable Energy

The Central New York Regional Planning and Development Board (CNY RPDB) is a public agency that was created in 1966 to serve five Central New York counties – Cayuga, Cortland, Madison, Onondaga and Oswego. They provide planning services that support the growth and development for Central New York municipalities, research public policy issues, and develop and implement plans to enhance the region's future. Their programs are based on stakeholder participation and intermunicipal collaboration.

The CNY RPDB Energy Management Program has a successful track record of project development and implementation. They currently serve as regional outreach contractors for the New York State Energy Research and Development Authority Clean Energy Communities program, with responsibility for educating homeowners, businesses, organizations, and municipalities about energy initiatives, efficiency, and renewable technologies. They foster and maintain working relationships with local governments, school districts, and businesses throughout the region and develop and implement innovative programs such as the Energy Challenge Teams and the CNY Climate change Innovation Program. They have been recognized by the U.S. EPA as a Climate Showcase Community. The Energy Management Program has also launched the energy Challenge Team program to engage participants in specific actions to reduce household energy consumption.

#### Challenge

The U.S. EPA has determined that climate change caused by greenhouse gas emissions threatens public health and welfare. Since 77% of U.S. emissions results from burning fossil fuels, energy efficiency and conservation are critical to reducing pollution. Behavior-based energy programs that focus on individual decision-making have been growing in prominence around the country as a means of achieving energy savings beyond what is obtained through traditional efforts focused on encouraging the adoption of energy efficient technology. Energy sustainability is identified in the 2013 Vision CNY Regional Sustainability Plan, which indicates that the residential sector comprises approximately 40% of building related energy consumption in the region. Sectors within this region will play a significant role in achieving the New York State goal of an 80% reduction in emissions by 2050.

#### Solution

CNY RPDB collaborated with Energy Training Solutions (ETS), to expand their Classroom Energy Challenge (CEC) and KiloWatch (KW) programs that teach school educators, staff, students and their families about conservation and renewable energy. The programs promote energy sustainability through education, emissions monitoring, and energy use reduction at homes and throughout the school community. CNY RPDB also developed a marketing plan for sharing the program with other schools throughout New York State.

The Classroom Energy Challenge is a flexible, six-unit program for 5th and 6th grade enrichment classes to improve their energy awareness and literacy through a variety of energy-related challenges in the classroom. In addition to

#### CHALLENGE

- Climate change caused by greenhouse gas emissions threatens public health and welfare
- Burning fossil fuels results in 77% of U.S. emissions - so energy efficiency and conservation are critical to reducing pollution

#### SOLUTION

- CNY RPDB worked to expand their Classroom Energy Challenge (CEC) and KiloWatch programs that teach school educators, staff, students, and their families about conservation and renewable energy
- The Classroom Energy Challenge is a flexible, six-unit program for 5th and 6th grade enrichment classes to improve their energy awareness

#### RESULTS

- Five schools agreed to participate in the CEC
- A full-day training workshop was provided to teachers to learn how to utilize the CEC curriculum
- ETS developed a PowerPoint presentation to be used for future teacher trainings, suited to live trainings, to help disseminate the program through New York State

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## TESTIMONIAL

classroom lessons, students are asked to complete homework assignments that involve their families in monitoring home energy use. By doing this, energy conservation lessons are shared beyond the classroom to a broader community with parents, siblings, and caregivers. The CEC lessons integrate science, math, and language arts instruction and provide learning experiences that correspond to state and national learning standards.

KiloWatch involves middle school students, faculty, and staff in an energy management approach specifically for school buildings. Students are trained to use specialized equipment that allows them to monitor energy use throughout their schools and learn about technologies and practices that save energy by conducting experiments and energy audits.

### Results

CNY RPDB met with ETS to review prior methods of delivery and develop plans for implementation at new schools. This included contacting each new school to confirm interest, teacher availability, grade levels, timeline, and the number of participating students. CNY RPDB contacted 12 schools and 5 agreed to participate in the program. Next they worked with teachers to update the CEC curriculum and KiloWatch materials and distributed them to participating students; as well as exercises to explore at home with their parents.

The teachers who agreed to participate were provided a full-day training workshop organized by ETS to learn how to utilize the Classroom Energy Challenge curriculum with their students. ETS conducted at least two classroom visits to each teacher to discuss the project and observe lesson delivery.

CNY RPDB bought kilowatt meters and infrared cameras for student use so they can observe heat efficiency in buildings and machines. The teachers did not express interest in using the cameras at this time so future programming will explore why this is the case.

As a follow-up, ETS wrote an article about the program for distribution in school and district newsletters. ETS and CNY RPDB compiled recommendations for contact information of additional New York State schools that might be interested in the CEC. Many schools did not fully complete the curriculum during the school year, but indicated interest with more advanced notice for planning.

From these experiences, ETS developed a PowerPoint presentation to be used for teacher trainings, suited to live trainings, to help disseminate the program throughout New York State. This was part of the marketing plan to promote the use of the programs beyond Central New York schools. This included a CEC/KW webinar, researching school outreach opportunities, a timeline and budget, as well as pre and post testing to document student achievement and the project's success.

### Online Media:

- [Website](#)
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"The Classroom Energy Challenge and KiloWatch programs have had a positive impact on school communities and families throughout the Syracuse City School District for the past several years. The programs offered instruction in energy conservation that helped families decrease their carbon footprint while providing opportunities for creative learning for students in their school and at home. Thanks to the support of the New York State Pollution Prevention Institute, we were able to establish an innovative connection between teachers, school staff, students, and their families. Grant funding was used for teacher training, classroom instruction, workbook printing, and supplies, and provided an opportunity for the programs to be offered at no cost to the participating schools. This resulted in energy cost savings in schools and homes, a high level of participation and interest, and documented improvements in student knowledge of energy and sustainability."

– Anne Saltman, Principal Planner, CNY RPDB

## NYSP2I PARTNERS

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