

Canton Central School

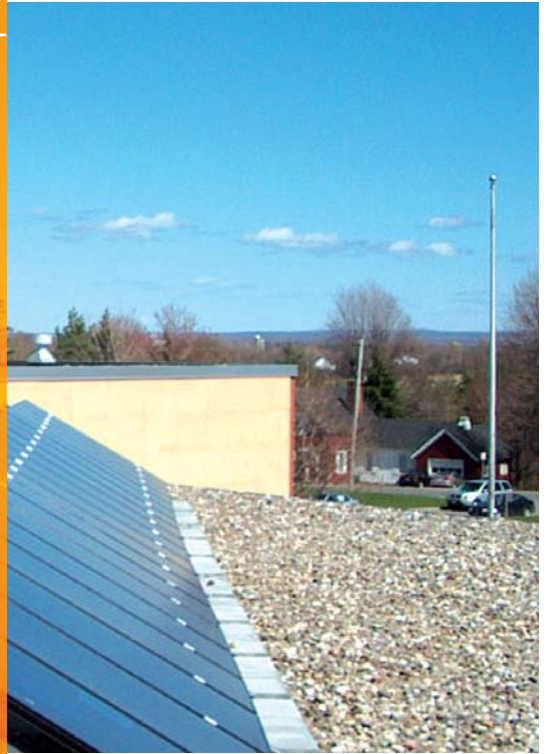
Canton, NY

THE BACKGROUND

Canton Central School is generating electricity from the Sun using a photovoltaic ("PV") system provided to fifty schools across New York through School Power... Naturally – an innovative program from the New York State Energy Research and Development Authority (NYSERDA). The program, managed by Solar Works, Inc. is **designed to educate New Yorkers about energy, and in particular, the role solar electric power – can play in providing clean energy for our homes, schools, and workplaces.**

Education is the heart of School Power... Naturally. Sixty lesson plans for teachers cover a broad range of multidisciplinary topics and address the learning standards for New York State students in grades 5-12.

Instrumentation and educational software hooked up to PV systems in each school produce computerized performance data that is automatically posted to www.SchoolPowerNaturally.org. Any school, anywhere in the world can log on for free to use our lessons and data.



THE STORY

Located in the Northern Adirondacks in the seat of St. Lawrence County, Canton Central School is well situated as a center for learning about solar electricity. Each year, the school hosts the North Country Energy Fair, a two-day event featuring alternative energy workshops, speakers, vendors, energy activities for students, and a tour of local homes. In October 2004, the school organized a major ribbon cutting and press event, announcing the installation and operation of their new solar electric system.

"Solar concepts were already part of our curricula in science in the elementary, middle, and high schools. Students learn by measuring sun angles, calculating energy gain and loss, working with plants in our greenhouse, and designing solar houses," explains

Dr. Katrina Jacobson, Superintendent of the School District.

"Now students also monitor power produced by the panels at computer terminals throughout the district and see first-hand the kilowatt-hour meter measuring electrical output. Our math and science teachers are working with agriculture, pre-engineering, and social science teachers. The student Environmental Club is involved, as well as National Honor Society students."

**For more information call 1-866-NYSERDA
or log on to www.SchoolPowerNaturally.org**

Students in 50 New York schools are learning hands-on how PV works, but the program does not end there. Incredible educational resources are available to any school, anywhere in New York or the world!

THE PV SYSTEM

The 2 kW solar electric system installed at Canton is sized for its suitability as an educational tool. Such a system can meet about 25-30% of the energy needs of a typical, energy-efficient home. The system includes solar panels, an inverter that converts the DC power from the solar array to the AC power the school uses, and a sophisticated but teacher- and student-friendly data collection and monitoring system. Sensors measure electricity, air temperature, temperature of the solar panels, wind speed, and solar radiation.



For more information about Canton Central School, visit www.ccsdk12.org

THE RESULTS

“From the moment students step off the school bus with sunlight glinting off the panels until their departure as the sun sets, their awareness of sunlight, energy, and their pride in knowing the school produces some of its own power greatly enhance the educational environment,” notes Tom VandeWater, Science Teacher and Solar Coordinator.

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