

Jamesville-DeWitt Middle School

DeWitt, NY

THE BACKGROUND

Jamesville-DeWitt Middle 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

Jamesville-DeWitt Middle School is pleased to be the first school participating in *School Power... Naturally* to have their solar photovoltaic system in place, and operational. Not only have we produced over 1800 kWh since December 1st, 2003, but we have educated the school and community by demonstrating the use of a pollution-free energy source.

The Technology Education Department explores alternate energy sources by:

- Constructing model homes incorporating alternate energy sources.
- Experimenting with fuel cell technology.
- Building solar collectors to cook food.

- Developing solar advertisements and commercials.
- Experimenting with different size solar cells to run student-built models.
- Distributing solar data to school and district staff.
- Managing a student web site devoted to alternate energy sources and the PV system. (Linked to www.jamesvilledewitt.org)
- Displaying monthly kilowatt totals in the main lobby of the school.

**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 Jamesville-DeWitt 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.

THE RESULTS

“The Technology Education Department is integrating the solar electric and data monitoring system into Curriculum Night, Kaleidoscope Night (showcasing student achievements), and Student Conference Day (exposing students to new careers). In addition, our school’s working relationship with the Teaching Center at Syracuse University, outreach to local newspapers and television, and use of the school for meetings and events by community groups provide multiple opportunities for educating the public about solar energy,” notes Chris Molesso, Solar Coordinator for the school.

For more information about School Power...Naturally, call 1-866-NYSERDA, or log on to visit www.SchoolPowerNaturally.org

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