



Teachers building PVC turbines at the Syracuse workshop in May of 2005

2005 NYSERDA Teacher's Wind Workshops



Over the past 8 months over 85 teachers from the elementary to college level have explored wind energy science with research scientists, educators and practitioners at four workshops throughout NY State (Bronx, Syracuse, Buffalo). The 8 hour agenda of these workshops has included background information on the wind energy industry and blade design, construction of a classroom PVC wind turbines and tours of local wind farms.

The goals of these events were to introduce teachers to the most current information about wind energy and related technology and to give teachers time to explore lesson plans and activities that would illustrate the science behind wind energy in the classroom. All teachers left the event with a PVC wind turbine that they constructed, a variety of lesson and informational materials, and a much stronger background in wind energy and the science and engineering that supports this growing industry.

One of the highlights of these workshops was taking a group of teachers to a large wind farm in Fenner, NY. After a long day of studying about wind turbines and making their own laboratory models it was great for them to see, hear and feel the big ones. We also had a wonderful tour from the chief engineer of the project. It was a real success.

Building and testing blades on the classroom PVC wind turbines is also very popular. While the time always feels compressed these opportunities always give teachers a chance to design their own blades and help them understand how engineers try to make the large turbines more efficient. Hopefully these classroom versions will find some use in the classroom!



Workshop Evaluations

Evaluations for four workshops are attached to this report. We have broken down some of the data from these evaluations so it is easier to understand.

Teacher Grade Levels

HS	51
Middle	22
Elementary	5
College	4
Informal Educators (Scouts, Science Centers, etc)	5

Total Number of Students Impacted by these Teachers ~16,000

Evaluation of Workshop Material Presented (N=87)

*On a scale of 1-10, 1 being **too easy** and 10 being **too hard**, how would you rate the difficulty of the material presented today?*

An average of all responses was 5.1

On a scale of 1-10, 1 being too little and 10 being too much, how would you rate the amount of the material presented today?

An average of all responses was 5.1

Finally, and in my opinion the most important result of the evaluation, how will this workshop affect their planning next year when teaching about wind energy?

On a scale of 1-5, 1 being not at all and 5 being definitely, do you plan to teach about wind energy next year?

An average of all responses was 4.6

Wind Energy in the Classroom

Previous to this workshop ~40% of the teachers had not spent any time at all exploring wind energy in their classrooms and many of those who had spend time gave it about 1 day. After this workshop over 90% of the teachers indicated that they plan to include information about wind energy next year and they plan to spend more time introducing their students to wind energy and the science and engineering that makes it possible.

Classes Spent on Wind Energy Education Before and After Kidwind Training

