Program Overview

Wind for Schools is a Department of Energy funded program through Wind Powering America that began in 2005. There are currently 11 states that are part of the program with Virginia joining in 2010. The goal of the program is to raise awareness in rural America about the benefits of wind energy, while simultaneously developing a wind energy knowledge base in future leaders of our communities, states, and nation.

The basic structure of a Wind for Schools program includes the creation of a Wind Application Center at a university where wind energy education will be infused into the undergraduate and graduate curriculum. Additionally, a state facilitator is appointed to reach out to K12 schools (host schools) to encourage the implementation of a small wind turbine at the school to increase awareness and education about wind energy.

Schools not only get an amazing new technology as a teaching tool but teachers are also trained on curricula to incorporate this technology and its data into the classroom. It is important to note that this program does NOT give you a wind turbine. The program is in place to help facilitate turbine installation and will help schools understand the process and find funding sources to help offset the cost of the system.

Choosing Host Schools

Our goal is to put up turbines at four to five host schools each year. In order to select those schools an application process is in place. In March, a proposal is required from any school that would like to pursue a wind project on their campus. This proposal is very simple and requests information on campus location, intended use of wind turbine in classroom, school support, community awareness, and more.

JMU’s Role

JMU helps Host and Partner schools to site projects on their campuses. JMU will help with project development, guide schools through approval and permitting, assist in identifying funding sources and link schools with an installer to stand up the turbine. JMU will also assist teachers in engaging their students in educational activities related to project development and then after the turbine is up help integrate the technology and data into the classroom to teach needed SOLs. JMU will continue to interact with schools once the turbine is up to ensure longevity of the program.
Host Schools
The goal of the WfS program is to put up small wind turbines at four to five host schools each year. Host schools are required to work through the project development process with the help of JMU, secure all necessary support and permitting, secure funding, and engage and educate their students and community about wind energy.

Partner Schools
We offer a Partner School program in which we install 20 meter meteorological towers outfitted with an anemometer and wind vane to schools that:

- Have little to no wind resource but would like to be part of the program
- Would like to install a turbine on their campus but do not have the funds ready
- Are not able to get into the Host School program due to high demand

Affiliate School
There are many schools around the state that already have a wind turbine at their school to help teach about alternative energy technology or to generate renewable electricity. These schools are welcome to join the WfS network and in doing so will receive teacher training on NEED and other wind energy education materials as well as be connected to the database of wind energy measurement from all the host schools in the country and contribute their data as well.

Museum Partner
As informal science education institutions, museums have the opportunity to educate students from many schools in their area as well as the public. Museums are encouraged to install a Skystream 3.7 wind turbine at their location and use the real time data to educate visitors about wind energy as well as develop an exhibit on alternative energy. Museum partners also serve as regional teacher training locations and educational kit keepers.

Teacher Training and Resources
The main goal of the WfS program is to educate students and the community about wind energy while building up a future workforce for the wind industry. With a wind turbine on a school campus, students are excited to learn about alternative energies, have a piece of current technology as an educational tool and have access to all the real-time data that the turbine collects for use in the classroom.

In order to help teachers integrate this amazing teaching tool into their classroom, the National Energy Education Development (NEED) offers a myriad of curricula on everything from energy conservation to wind energy. As a Wind for Schools participant, teachers at participating schools will receive training on the NEED curricula. Teacher training workshops are held all over the state throughout the year to accommodate the geographic diversity of the schools in the program.

Wind Turbine Information
WfS has identified a suggested wind turbine that is easy to implement and interconnect to the school’s electrical grid and has integrated data logging to provide data for use in the classroom.

Skystream 3.7, 2.4kW wind turbine
- 55’ Monopole tower (suggested)
- 12’ diameter rotor
- 2’ footprint
- 6’x6’ foundation
- Wireless data transmission
- Skyview performance monitoring software

Funding Ideas
The Skystream 3.7 can cost upwards of $20,000 to purchase and install. Depending on your installer and the level of community support, this cost can be much lower. Here’s a brief list of possible funding sources:

- BP Wind
- Appalachian Regional Commission
- Dominion Foundation
- Lowes Tool Box Grant
- Green Energy Certificates
- See our website for more funding ideas!

wind.jmu.edu/education/wfs.html