2009 Kansas Wind for Schools Proposals

This year we will again be selecting five sites for installation of small turbines at rural schools throughout Kansas. These are the 5 key areas that we look at when we select schools.

1. What is the level of support within your community and school for this project? We look for schools that have good support from the school administration and school board as well as community members and businesses. Many of our best projects have a "champion" who works to gain support from all part of their community.

2. Are there any groups, class projects, or curriculum focused on care of the environment and/or sustainability at your school? What topics are they focused on? Some examples are: composting, biodiversity, and sustainable agriculture…

3. Do you have science teacher(s) who would be willing to incorporate the wind turbine into their curricula? We will provide assistance in this area and help set up wind data streams.

4. What is your wind class? This can be found by looking at the "Wind Speed Map" at http://www.kcc.state.ks.us/energy/wind.htm We typically look for Class 3 wind or greater at 50m; however we have selected a few schools in class 2 areas.

5. What is the area that you would like to put the turbine like? The best site would be at least 200 ft from buildings and other obstacles, but not more than 1000 ft from a building using electricity all year long. At a minimum, there should be a site with a 100-foot radius that has no obstacles such as trees or buildings taller than 20 feet. This is to ensure the best flow of wind. If possible, please attach a couple pictures in .jpg from areas that you think look promising.

Frequently Asked Questions

1. What kind of wind turbine will the school be using if selected to be a part of the Wind For Schools program?

   The Skystream turbine is a 2-kilowatt turbine with a blade diameter of a little over 12 feet. It will generate around $300 or $400 worth of electricity in a year. They are designed for residential use.
   To learn more about the Skystream turbine, visit the Southwest Windpower website at: http://www.skystreamenergy.com/skystream/

2. Will we be able to sell excess power back to the utility?

   No. The Skystream turbines will not generate enough power to be able to sell any back.

3. How much does a turbine cost?

   The installed cost of a Skystream turbine would be in the $12-15,000 range without our support. Be aware that there is the need for funding from your school and community.

4. How can we pay for the turbine and the associated installation costs?

   Skystream offers a substantial discount in the turbine price for Project schools. We ask the school to pay $2000 of their own funds and generate support from the local community (cash and in-kind) and local utility (in-kind assistance with grading, pouring the foundation, erection and interconnection). The Kansas Energy Office will support each school with $1000 towards the project cost. We will arrange approximately $2000 donations from the sale of "Green Tags" to a broker. Green tags are a way to monetize the value of nonpolluting or renewable energy. Generally a local patron or business will buy these from the broker and then be able to claim they are using wind energy and/or supporting the local Wind for Schools Project. A third potential source of funds is the Kansas Green Schools Air Quality grant fund; you must apply for these but the application is brief and on-line at kansasgreenschools.org (grant program link.) For details on costs, see the Cost Estimates webpage.
   http://www.eece.ksu.edu/psg/wac/CostEstimates.html

5. When are proposals due?
   Proposals should be submitted by **April 15, 2009**. Late submissions will not be considered. We would prefer electronic submissions but will accept paper submissions. Photos especially should be in electronic form if possible, since they reproduce poorly in print.

Please submit to:

Dr. Ruth Douglas Miller
280 Rathbone Hall
Kansas State University
Manhattan, KS 66502
rdmiller@ksu.edu
(785) 532-4596

Questions can be directed to Dr. Miller or to the Kansas Wind for Schools coordinator:

Dan Nagengast
Kansas Rural Center
304 Pratt
P.O. Box 133
Whiting, KS 66552
nagengast@earthlink.net
(785) 748-0959

Thank you for your interest in the Wind for Schools Project. This is an exciting possibility for your school and community!

Proposal Format

Please answer all these questions completely:

1. Name/Location of School/USD#/contact information/website.

2. Person submitting the proposal with contact information.

3. Description of the school property:

    a. Is there an available site at least 200 ft from buildings and trees but within 1000 ft of a building using electricity year-round?

    b. If not, is there a high and open area with plenty of wind with at least a 100 feet radius circle with no obstructions taller than 20 feet?

    c. Does the site have room for a 70' x 70' square footprint guyed tower, (slightly smaller for monopole tower)?

    d. Have you considered what the neighbors and school children will think about the wind turbine?

4. Is everyone who needs to be, supportive? Please have them contact us with questions as they arise in preparation of the proposal.
    a. Do you have the support of the principal, superintendent, maintenance staff and school board? **Please attach their support letter.**

    b. Do you have local community support from electricians, equipment suppliers, banks or other business leaders who will lend in-kind or financial aid? Do they understand the nature of what is being asked of them? **Please attach support letters.**

    c. Do you have the support of your local utility? Can they help install the turbine, provide concrete, steel, wires, and connecting boxes? **Please attach support letters**.
        Exception: Westar customers need NOT contact Westar. We already have an agreement with this utility.**

5. Please tell us how you plan to incorporate the turbine into your teaching and curricula.
    a. Who are the science teacher(s) who will be using the turbine? **Please attach support letters**.

    b. Will they be using the NEED curriculum or other materials? http://www.need.org/curriculum.php

    c. Will you be collaborating with other schools or sharing the data stream from your turbine? Please explain.

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