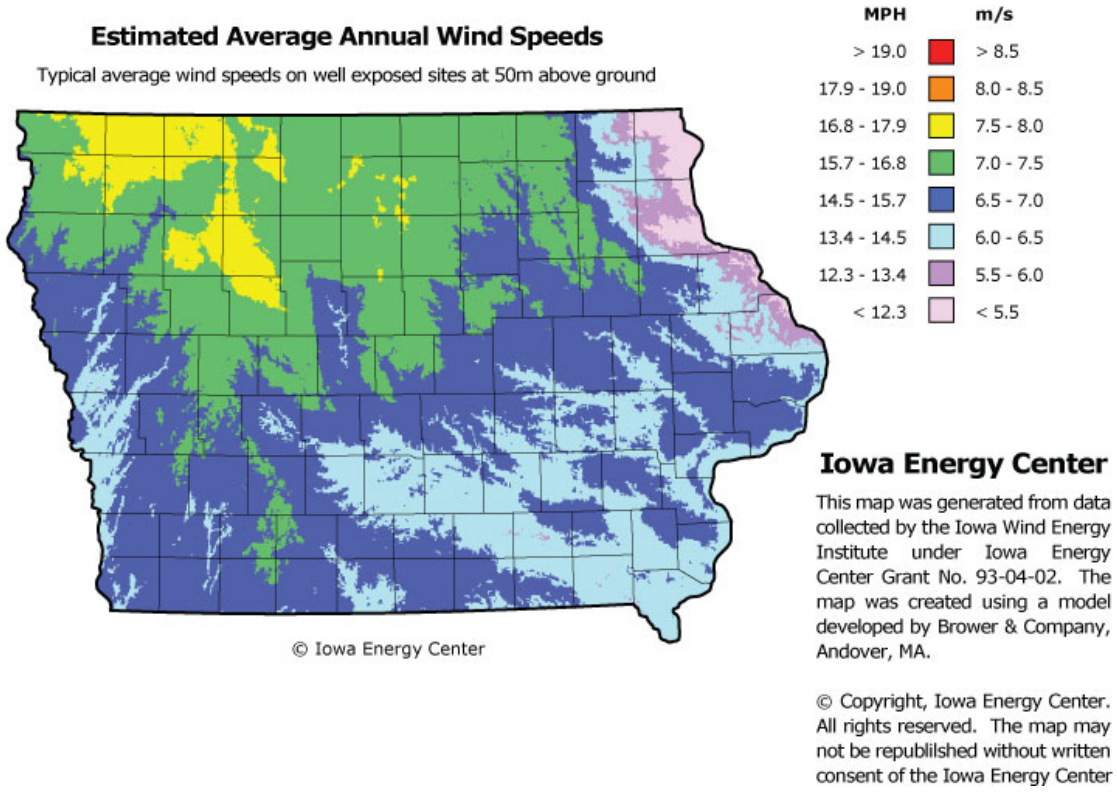
Frequently Asked Questions: Small Wind Systems

1. **How much electricity can be generated?** You should first determine how much electricity you want to generate, and when you need to generate it. Based on your current electricity usage, decide how many kilowatt-hours you would like to produce. Once you know how much energy you want, you can select the right system to meet your needs.

   The vendor should be able to give you an idea of the output capacity of the system, but it's also necessary to look at local conditions. For example, the wind speed at your site at the height you intend to erect your wind turbine is a critical factor in estimating your energy output and may vary from the figures your vendor used to calculate output.

   Below is a map of the average wind speeds in Iowa. Monthly maps are available from the Iowa Energy Center at http://www.energy.iastate.edu.



2. **What happens if I produce more electricity than I need?** Ideally, with an appropriate sized wind turbine you will consume all the electricity you produce. This is the most cost effective use of the energy produce. However, if you produce more energy than you consume, you can deliver that excess power back to the grid. To do so, you must establish and interconnection agreement with the cooperative and install the

appropriate interconnection equipment. For more information interconnecting your small wind system, or other distributed generation, contact the cooperative.

3. **How reliable are wind turbine systems? Will I have to perform much maintenance?** Most wind turbines are designed for a long life and operate completely automatically. Obtain at least two references from the company that produces and/or sells the wind generator model that you are considering. Ask those owners about the generator's reliability and its maintenance requirements.

   Find out what maintenance the turbine manufacturer recommends. Small wind experts recommend an annual inspection of your wind turbine. Check bolts and electrical connections, and tighten if necessary. Also check and replace any worn leading edge tape on the blades. After 10 years, the blades or bearings may need to be replaced.

   If you do not have the expertise to maintain the wind generator, find out what companies provide maintenance services in your area. Make sure the companies give references, and ask what a service contract will cost.

   As one small wind expert has noted, if you do not change the oil in your automobile, you're unlikely to carry out he maintenance on your wind turbine.

4. **Do I have to pay any taxes, such as property taxes, if I install a small wind system?** Depending on the particular situation, the generator may be subject to some replacement taxes. This question should be directed to your tax accountant and/or tax lawyer.

5. **Is a small wind system really worthwhile to put up?** Installing your own generation is an individual decision for each member. A cooperative's role in this process is to help educate the member regarding the co-op's expectations in this process. First and foremost, Pella Cooperative Electric must protect the safety of cooperative members and employees as well as maintain the integrity and reliability of the grid and establish mechanisms to ensure cost fairness. The greatest payback to the member occurs when you consume all the energy produced by the generator.

   The cooperative will try to help you obtain information you deem relevant to your decision-making process. However, the decision is one you must make on your own or with the assistance of consultants hired to provide you with advice.

6. **I want to use wind as a cash crop on my farm. How do I accomplish this?** Even though you receive electric service from a cooperative, you have the right to allow other electric utilities or businesses to install wind turbines on your property. Typically, the companies involved in constructing a wind farm will review wind patterns and available infrastructure such as transmission facilities when determining the location of wind turbines. Other variables will also come into play as these companies evaluate the attractiveness of your property for a wind farm.