

Frequently Asked Questions Associated with Interconnecting Distributed Generation, Specifically Wind Energy

Revised May 2008

GENERAL WIND ENERGY QUESTIONS

1. What is the cooperatives' position on wind energy?

Today's changing energy landscape is bringing more attention to renewable energy resources. Hancock-Wood Electric Cooperative (HWEC) supports generation that is safe, reliable, cost-effective and environmentally responsible.

2. What is required by the cooperative if I install a wind generator?

Cooperatives must adhere to all applicable federal and state laws when working with a member to connect wind generators to the grid. When considering the installation of a wind generator, a strong emphasis must be placed on safety considerations for the cooperative's employees and customers; protection of the cooperative's and customers' delivery system; and fairness to other members of the cooperative from a cost perspective.

A written agreement between the cooperative and the member is developed to ensure proper communication and protections are in place, prior to connection of the facility to the grid. Consideration must also be given to established requirements for installation, maintenance, metering, switching and general liability insurance. HWEC can provide you with a complete list of all of the requirements.

3. What is required of me, as a member, if I decide to install a wind generator? and connect to the grid?

The general requirements include paying for any interconnection studies, and the interconnection and metering equipment necessary to protect the delivery system and the safety of cooperative personnel. This equipment is required to maintain the integrity of the delivery system, and to properly meter the electrical production. The member is expected to maintain adequate general liability insurance coverage. Members must, comply with any local codes, and pay for the necessary special metering equipment used to measure kWhs delivered back to the grid.

4. What is the process for installing a wind turbine?

Before investing in a wind turbine or before connecting it to the grid, the customer must contact HWEC personnel to gain an understanding of the expectations for both the cooperative and the member. The member and the cooperative will work together toward a written agreement, which will address these expectations as well as each party's responsibilities. The agreement will also cover the terms and conditions associated with the interconnection, including rates that the cooperative will pay the customer for the power they deliver to the grid, insurance requirements and metering requirements, to name a few. This agreement must be in place before the wind turbine can be connected to the grid.

5. Why do the utilities have so many requirements before a wind turbine can be interconnected with the grid?

As rural electric cooperatives, we are your partners in providing you with safe, reliable electric service. We have requirements in place to address issues of safety, grid integrity and cost fairness. Those requirements ensure that cooperatives can (1) protect the safety of customers and cooperative employees (2) maintain the integrity and reliability of the grid and (3) establish mechanisms to ensure each member shares appropriately in the costs.

6. Is wind worthwhile to put up? What are the economics of installing a wind turbine? Tell me why I should or shouldn't consider putting up a wind turbine.

Installing your own wind turbine is an individual decision for each customer. A cooperative's role in this process is to help educate the customer regarding the co-op's expectations in this process. The cooperative, together with the customer, is also responsible for compiling a written agreement. First and foremost, HWEC must protect the safety of cooperative customers and employees, maintain the integrity and reliability of the grid, and establish mechanisms to ensure cost fairness. 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.

FINANCIAL QUESTIONS

7. Why do I have to carry General Liability Insurance Coverage?

It is very common for businesses and individual homeowners to carry liability policies to insure against various types of losses or claims. Conceptually and generally, members should not view carrying liability insurance on a wind turbine any differently than the liability insurance that is carried to drive an automobile. Insurance on automobiles is carried to provide coverage for damages to others and their property. This basic business principle applies to carrying liability insurance for a wind generator. Just as it is true for other personal property, it is up to the owner of a wind generator to assume responsibility for insurance coverage.

8. What is net metering (net billing)?

Installations where the wind turbine is less than 25kW in size and the wind turbine does not produce more energy than the member consumes annually, qualify for net metering. Net metering is a mechanism where the kWhs being delivered to the grid by a member are netted against those being delivered to the member by the cooperative through the metering process or effectively allowing the meter to “run backwards”. The price the cooperative is paying for kWhs delivered to it by a member based on the cooperative’s full retail rate, which is a higher rate than the cooperative incurs from purchasing its energy from our generation company, Buckeye Power. This is due to the fact that energy (kWhs) is only one component on your electric bill. The cooperative is responsible for the poles, wires and equipment necessary to deliver this energy to your home and the personnel to maintain and operate the distribution system. These fixed costs are being paid by the cooperative membership whether the wind turbine is generating or not generating..

9. What is the cooperative’s backup rate when the wind is not blowing and my generator is not generating?

If a member generates their own power, and only wishes to receive power from the cooperative when their generation is not running, they can apply for Standby Service. This rate reflects the cost to maintain adequate facilities, power supply resources, and transmission access to serve the member’s needs. The timing and duration of the need for standby service is undetermined, and the cooperative must price this class of service accordingly. The Standby Service rate allows the cooperative to recover fixed cost that is associated with providing standby capacity from its distribution lines and equipment that is ready to deliver power to your facility should it be required. The cooperative’s standby rate will consist of a monthly minimum capacity or demand component, energy component, and a monthly service charge component

10. Why is an Engineering Impact Study required?

Distribution systems were originally designed to transmit energy from a central source (a substation), and out to the members along the utility’s power lines. The size of the wires and the types of protective equipment were engineered with this principal in mind. Installing a wind turbine or any type of distributive generation changes this fundamental design parameter. Installation of a wind turbine along the distribution line requires the cooperative to study “how the energy will flow” and its impact on how it will affect the existing utility wires and protective equipment. If this step is not performed, distributive generation could negatively affect the reliability of power delivered to the utility’s members.