



# Consumer Handout Packet

## Questions to Ask Wind Turbine Vendors

Cooperative members interested in installing a small wind system should ask vendors or distributors the following questions:

1. **How reliable is the rated energy output? How did you calculate the output? What wind speeds did you use?**

Experts advise ignoring peak output and power curves provided by vendors. Rather, look for the monthly or annual energy numbers—in kilowatt-hours—for the turbine, estimated for the average wind speed that you expect or have measured at your site. If the turbine manufacturer or distributor does not provide energy production estimates, find another manufacturer.

2. **Is the inverter UL listed?**

If the inverter is not UL listed, find another vendor. Most utilities require that an inverter have a UL 1741 certification for interconnection with the grid. As part of the certification, the inverter is required to fail open in the absence of power on the grid.

3. **What is the estimated total installed cost? What does the turbine cost? What does the tower cost? How much is installation estimated to cost?**

It is important to know the total installed cost of a wind turbine system to ensure sufficient budgeting for the system. Budget for installation labor expenses as well as the cost of equipment rental, concrete and rebar, electrical components, shipping, and sales tax.

4. **How long is the warranty? What does it cover? Parts? Labor? Can it be extended? If so, what will it cost?**

Warranties range from one to five years. The longer the warranty, the better. Make sure the warranty covers labor as well as parts. Cooperative members should ask owners of wind systems purchased from the same vendor about performance and reliability before making a decision on an extended warranty, if available.

If you live in an area that is prone to lightning strikes, you should strongly consider the option of lightning protection. At present, only one U.S. vendor—Abundant Renewable Energy (ARE)—offers such protection with its machine. But third-party vendors can design and install adequate protection systems.

5. **What are your credentials? How long have you been in business? How many turbines have you sold? Have your turbines been certified?**

Look for vendors that have been in business for at least five years, or have acquired the product line of another vendor. In addition, cooperative members should ask the vendor for the names of at least two people who have installed a wind turbine that is the same as, or similar to, the model the cooperative member is interested in.

Currently, there is no U.S. small wind certification process, but small wind turbines can be certified using the International Electrotechnical Commission (IEC) standard—IEC 61400-2—for testing wind turbine power performance. This standard is increasingly used by U.S. manufacturers in their wind turbine designs.