



Questions to Ask Wind Turbine Vendors

Customers interested in installing a small wind system should ask dealers/installers the following questions:

1. How reliable is the rated energy output? How did you calculate the output? What wind speeds were used in the estimate?

Some experts advise ignoring peak output and power curves provided by vendors. Rather, look for the monthly or annual energy numbers – in kilowatt-hours (kWh) – 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. Compare dealer/vendor claims with your estimates from Step 3 in the “Ten Steps to a Sound Decision” small wind paper.

2. Is the inverter UL listed?

If the system includes an inverter that is not UL 1741 listed, it does not qualify for Midwest Energy’s “simplified” interconnection process. This requirement is so basic that you might want to consider another vendor if his/her product includes a non-listed inverter. As part of UL 1741 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. Remember to consider the total distance and cost of wire and trench from a low-turbulence generator site to existing premises wiring large enough to accept full output.

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. Longer is better. Make sure the warranty covers labor as well as parts. Ask other owners of wind systems purchased from the same dealer or manufacturer about performance and reliability before making a decision.



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You should consider the option of lightning protection. Check to see if your dealer or manufacturer provides lightning protection. Third-party vendors can design and install adequate protection systems. Remember to include this in the total system cost. (Over)

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

Look for dealers/installers that have been in business for several years. In addition, 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 being considered.

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. The IEC standard is increasingly used by U.S. manufacturers in their wind turbine designs and can be found at this Web site:

http://www.awea.org/standards/iec_std.html

The American Wind Energy Association has a more thorough list of questions posted in this article: <http://www.awea.org/smallwind/sagrillo/questions08.html>