

Is My Wind Turbine Safe?

QUESTIONS PROSPECTIVE TURBINE OWNERS SHOULD ASK OF TURBINE MANUFACTURERS QU 0411

Wind is the fastest growing source of renewable energy in the world today. Businesses, schools, hospitals, resorts and towns are increasingly turning to community scale turbines to power their facilities with clean, affordable, domestic energy. As turbines are installed in these neighborhood settings, it is imperative that the critical questions are asked of turbine manufacturers to ensure that your wind turbine meets the most stringent certification and quality standards in the market.

WHERE IS MY TURBINE MADE?

Northern Power Systems manufactures its Northern Power 100 turbines in its 119,000 square foot facility in Barre, Vermont. We take pride in the fact that our engineers, production team, salespeople and customer service teams work together in the same facility to deliver the highest quality American-made turbine in the community wind market to your site. We have welcomed many a customer to come visit their turbine in process, will you be next?

IS MY TURBINE RELIABLE?

Originally developed with NASA funding and designed for remote and isolated sites, the NPS 100 puts reliability at a premium. Regular and costly maintenance was not an option for applications located in the rugged environs of Alaska—let alone your farm, school, or business. Northern Power's expertise, advanced technology and support infrastructure, combine to provide an unmatched level of service in the community scale wind market, resulting in 98% median fleet availability on a monthly basis.

DO YOU HAVE TURBINE MONITORING SERVICES?

Northern Power Systems has created an advanced and responsive 24/7 NPS 100 Network Operations Center to monitor our turbine installations around the globe. Our engineers stand ready to support the safe and reliable operation of our turbines through our unique SmartView monitoring platform, which provides us nearly unlimited access to the turbine control system. In addition, Northern Power continuously conducts preventative maintenance diagnostics on our fleet of turbines to identify opportunities for even more proactive service and support of our turbines.

Our investment in this support infrastructure and our commitment to service, delivers an unprecedented value to our customers that manufacturers or re-sellers of other turbines simply cannot match.

IS MY TURBINE CERTIFIED?

Community scale turbines are being installed near recreational fields, playgrounds, supermarkets, hospitals and in various other neighborhood settings and should be required to meet all certification requirements as determined by national and international safety and performance associations such as UL, CSA, and CE. In fact, in order to meet most federal and state funding eligibility requirements your turbine will require these critical safety certifications. The Northern Power 100 turbine has met all stringent eligibility requirements to be compliant with UL, CSA and CE standards for safety and performance.



The Northern Power 100 meets the following certifications or standards.

Listed to:

- UL1741 Electrical System Interconnection and Safety
- UL1004-4 Electric Generators

Listed to the following Canadian Standards:

- CSA C22.2 No.107.1-01 Electrical System Interconnection and Safety
- CSA C22.2 No.100.04 Electric Generators

Conformity to the following European Standards & Directives

- 2006/95/EC Low Voltage Directive
- 2004/42/EC Machinery Directive
- 2004/108/EC EMC Directive
- EN 60204-1 Safety of Machinery: Electrical Equipment of Machines
- EN 12100-1, EN 12100-2 Safety of Machinery
- EN 6100-6-2:2005 – EMC: Immunity Standard for Industrial Environment
- EN 6100-6-4:2007 – EMC: Emission Standard for Industrial Environment

Third Party Tested to the following Wind Turbine International Standards

- IEC 61400-11 Acoustic Noise
- IEC 61400-12 Wind Turbine Power Performance
- Wind Turbine Duration Test per IEC 61400-2

IS MY WIND TURBINE SAFE?

Northern Power uses an advanced in-line test and manufacturing quality system that ensures that turbine components are tested at the subsystem level throughout the manufacturing process, thus creating a digital health record for each turbine. Developed for the aerospace and defense industry, this advanced process control and tracking system allows Northern Power to deliver the highest quality turbine on the market and support each turbine with preventative maintenance and performance monitoring over its 20+ year lifetime.

HAVE THE INSTALLERS BEEN TRAINED?

Northern Power mandates that all installation and operation and maintenance (O&M) work on NPS 100 turbines be performed only by certified technicians. Northern Power has instituted a rigorous “factory certified” training program at its manufacturing and test facility in Barre, Vermont and requires that technicians complete and maintain certification to our high standards.

