



## Wind Power - Performance, Projects, System Design, and Installations Statement of Qualifications

### Soup-to-Nuts Project Support

#### Knowledgeable, Professional and Reliable

Seventh Generation Systems Integration is a renewable energy engineering firm that partners with you to design and build sustainable energy systems that work in concert with your business, community and financial priorities.

With nearly a decade of boots-on-the-ground experience in renewable and energy efficiency technologies, the staff at Seventh Generation tailors the solution to fit the needs of your project. Our expertise across multiple disciplines

ensures that your goals are realized in the most reliable and economical means.



#### Wind Power Projects

Our in-house professional experience allows you to go from soup to nuts, from the first course to the last, with one firm. Your project process will be efficient, through the planning and design stages of the project, right up through commissioning and maintenance.

Wind power has its own set of complexities that our staff is uniquely qualified to navigate. Our combination of skills and expertise spans the range that you will need to ensure a successful project with years of reliable energy production. Contact our knowledgeable staff regarding any of the

services we provide to serve small and community wind:

- Wind resource monitoring and analysis
- Site assessment and selection
- Financial analysis, incentives, tariffs and grant-writing
- Project permitting and zoning support
- Utility-interconnection and transmission access
- System selection and equipment procurement
- Engineering and electrical design
- Installation, maintenance and operations

Seventh Generation supports the relationships with manufacturers, community members, the host utility, and financing agents, to ensure the success of your project.

#### Customer Driven Innovation

Our commitment to excellence has satisfied a diverse group of clients across the U.S. including schools, colleges, home-owners, farmers, wind developers, Native American Tribes, community groups and electric utilities.

We have the qualifications ready to conduct thorough feasibility studies including on-site wind resource analysis and rigorous financial for communities and tribes. Community power, larger systems locally owned generation, is a key part of tomorrow's integrated energy future.



## Seventh Wind Performance Calculator

[www.seventhwindsoftware.com](http://www.seventhwindsoftware.com)

Our small wind turbine performance software is a standard in the small wind industry for calculating turbine performance. Our team is keenly interested in providing a reliable and accurate means of predicting wind energy production at a specific site. We believe that the Seventh Wind calculator answers that need.

Our software was developed to serve the Focus on Energy program in Wisconsin, and now is used in other states and assessor certification programs.

Whether you are a site assessor or a prospective turbine owner, the investment in this software will be worth the cost in determining an optimum turbine model for the scope of your project.

- More than 50 3rd party certified wind turbine production curves
- Clear and easy interface for comparing and contrasting systems
- Frequent updates of systems and production curves
- Multi-user licenses for site assessor certification programs

	Bergey XL1	Endurance S-343	Proven WT15C
Tower height (ft)	110	110	120
Manufacturer	Bergey	Endurance Win...	Proven
Model	XL1	S-343	WT15
Manufacturer's rated output (kW)	1	5	15
Rated output at 11m/s (kW)	1	5	15
Output voltage	12, 24, 48	240	240
Phase	1	1	1
Rotor diameter (ft)	8.2	18	29.5
Total structure height AGL (ft)	114.1	119	134.8
Wind speed at hub height (mph)	11.74	11.74	11.988
Annual energy output (kWh)	1673	8183	23392
Monthly energy output (kWh)	139	682	1949
Proportion of project energy use	3.72 %	18.18 %	51.98 %
Excess energy production (kWh/yr)	0	0	0
Capacity factor at rated output	19.09 %	18.68 %	17.80 %
Capacity factor at 11m/s output	21.70 %	20.92 %	20.12 %

## System sizes and standards

Seventh Generation is a national leader, trailblazing small wind system design and installation. We have installed more than 1000 kW of small wind capacity throughout Wisconsin and assessed the wind resource for a diversity of clients across the spectrum, from home, farm and school to community sized.

Seventh Generation specializes in wind systems from 10 kW to 1 MW. Our product offerings range from smaller system manufacturers like Bergey and Xzeres (formerly Abundant Renewable Energy), to mid-sized systems from Northern Power Systems, Endurance Wind Power and larger systems made by Vestas. We are always researching new systems and sizes as we work to meet the needs of customers across the Midwest.

In the early stages of the small wind market it's crucial to have experienced installers to verify the reliability of the equipment you purchase. We will only install equipment that has third-party certified production data and proven reliability of systems in operation in the field. We believe that the strength and longevity of your project is only as strong as the manufacturer standing behind the equipment. With our years of experience and range of equipment knowledge, Seventh Generation is a wise place to begin developing your vision.

## An Important part of your Energy Solution

Small and Community wind power is set to be an integral part of tomorrow's energy future. Seventh Generation is on the leading edge of this technology, bringing the power to your farm, business, community or tribe to develop local generation capacity and insulating you from increase energy costs for the life of your system.



Funded in Part by:  
**focus on energy**  
*The power is within you.*

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