

Lightning Round Update

Distributed Wind 2024

Mike Bergey
President



Bergey Windpower Co.

A World Leader in Small Wind

- ❖ Established in 1977, sole focus on small wind turbines for distributed applications
- ❖ Pioneered “sophisticated simplicity” turbine architectures and numerous component technologies
- ❖ Turbines have had 2-4 moving parts, and required no scheduled maintenance
- ❖ Over 10,000 installations, covering all 50 States and over 100 countries



Bergey Turbines, 1980 - 2019



BWC 1000, 1980



BWC Excel, 1983



BWC 1500, 1990



BWC 850, 1994



BWC XL.1, 2000



BWC Excel 50, 2005

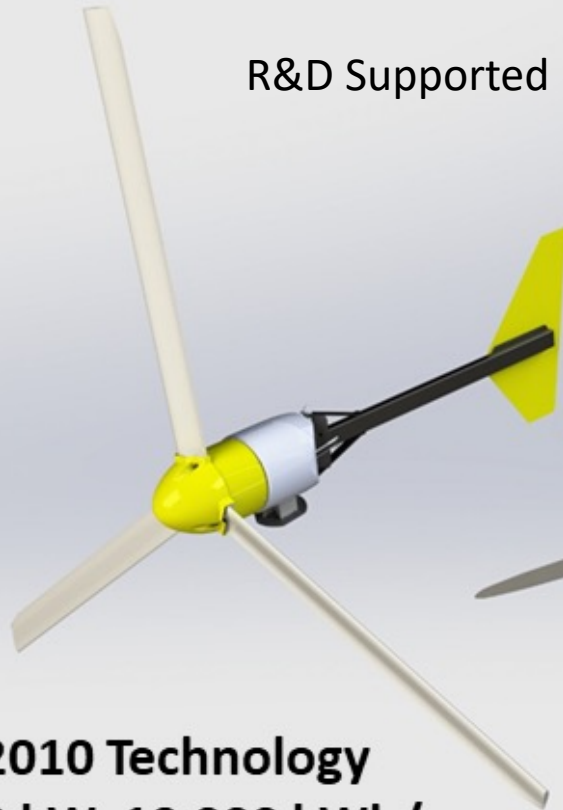


BWC Excel 6, 2012

Bergey Excel 15

Advanced Distributed Wind Technology

R&D Supported by US-DOE



2010 Technology
9 kW, 19,000 kWh/yr
LCOE: 21¢/kWh



2020 Technology
16 kW, 45,000 kWh/yr
LCOE: 9¢/kWh



Excel 15

- Sales are dominated by new installations in Ag and Rural markets
- USDA REAP grants are driving growth
- Retrofits account for ~25%
- New Powersync 25 inverter introduced in July – Licensed from Intergrid
- Production ramping is progressing but constrained in 2023 by electronics

REAP-Fueled Agricultural Market



BWC 15 kW Retrofits



Replacing:

- Bergey 10 kW
- Jacobs 10, 17 & 20 kW
- Proven 15
- Gaia 11
- Endurance 60 kW
- Evoco/Osiris 10 kW
- ReDriven 10 & 20 kW
- EnerTech 40 kW
- Numerous Chinese Models
- Xzeres 10 kW (special case – reduce rotor speed)

NREL Static and Fatigue Tests, BWC Excel 15 Blade

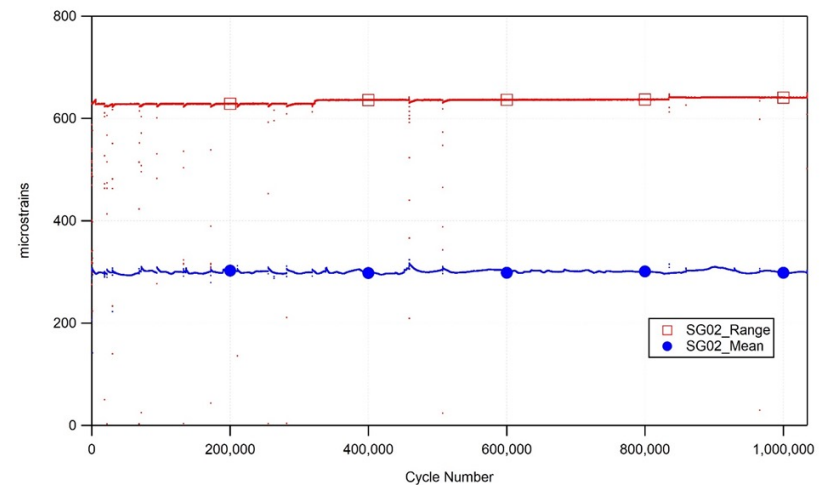


Static Test

NREL Static and Fatigue Tests, BWC Excel 15 Blade



- **20-Year Accelerated Life Test: 1 million cycles at calculated Damage Equivalent Load (DEL)**
- **Currently at X million cycles and 2X DEL**
- **No significant change in stiffness (lots of fatigue life left)**



We Love What We Do

