



**Is small wind (at long last) at the tipping point?**

# Bergey Windpower Co.

- ❖ Established in 1977, Mfg. Since 1980
- ❖ Serve Consumer, Commercial, and Industrial Markets
- ❖ Over 7,000 installations, covering all 50 U.S. states and over 100 countries
- ❖ ~ 600 Dealers Worldwide
- ❖ Beijing Bergey Windpower Co.



# Wind Energy Since 1970

- ❖ Karl Bergey designed the Piper Cherokee
- ❖ Karl did his first feasibility studies on wind power in 1970 and testified before Congress in 1974
- ❖ Student wind power projects at Univ. of Oklahoma started in 1973
- ❖ Mike Bergey started on projects in 1974



# The Last One Left Standing

- ❖ **BWC Faced 40 U.S. Competitors in the 70's & 80's**
- ❖ **Gained Leading Market Share in 1983**
- ❖ **BWC is the Sole Survivor from the Last Energy Crisis**
- ❖ **The Difference:  
Product Ruggedness  
& Reliability**



Popular Science, July, 1982

# Ruggedness & Reliability

## The BWC Difference

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- ❖ Same Model used for Homes and Industrial Applications



SIMPLICITY • RELIABILITY • PERFORMANCE

- ❖ BWC turbines often replace Whispers, Jacobs, and other less well known brands – Bergey units very rarely replaced (to larger size unit)
- ❖ Longest Warranty (Aeromax Lakota?)

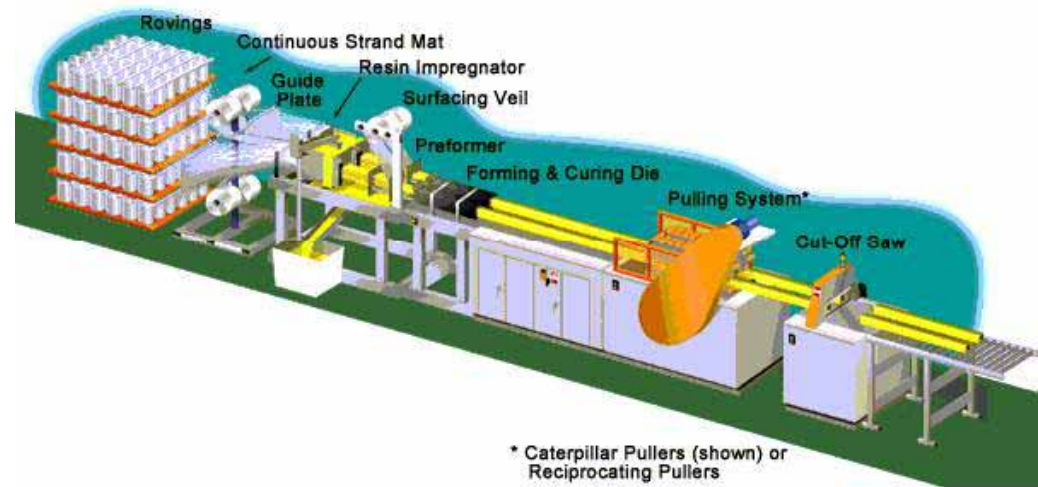
**Bergey  
Turbines  
are**  
**Tornado-Tuff**  
Designed, Built, and Proven  
in America's Tornado Alley



**Exclusive**  
**5**  
**YEAR**  
**Warranty**  
They're Just Built Better!

# Super Strong “Pultruded” Blades

- ❖ 70% Full-Length Glass Fiber
- ❖ 100,000 psi Strength



# Strong Products: 1 & 10 kW (5 & 50 kW)



**1 kW**



**10 kW**



**5 kW**  
(in development)



**50 kW**  
(in development)



# BWC 10 kW Turbine

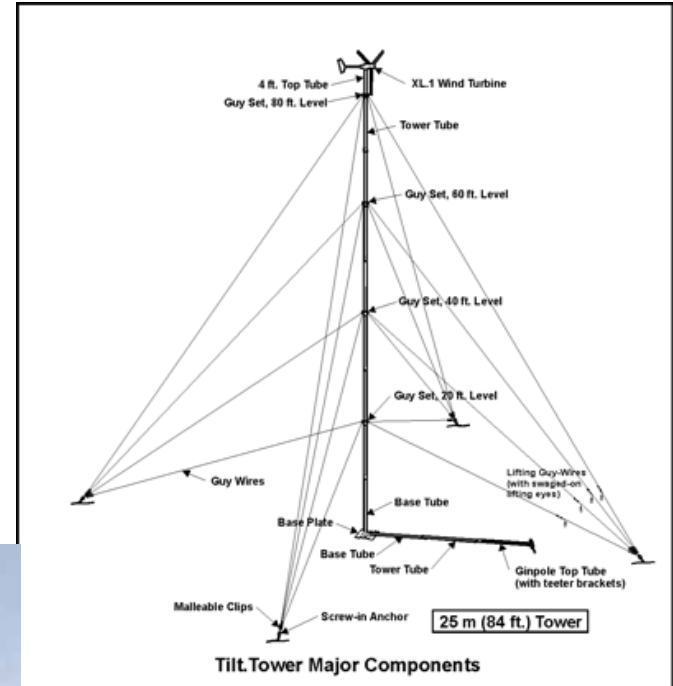
## Proven Performance, Reliability, and Longevity

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- ❖ 23 ft (7m) rotor
- ❖ Reference Rated Power: 10 kW (BWEA: 8.2 kW @ 11 m/s)
- ❖ > 1,700 Installed, in more than 35 countries
- ❖ Units have operated over 20 years without any service
- ❖ New Advanced Technology (30% more energy) and 10 year warranty



# Full Range of Engineered Towers



18m – 47m:

Guyed Lattice

Tilt-up Guyed Lattice

Self-Supporting Lattice

Tapered Pole

# 25 Years of Expertise in Installation



Pieter Huebner: AWEA  
“Windsmith of the Year”, 2002



# Bergey Windpower Today

- ◆ **Best business prospects in our 30 year history**
- ◆ **Solid financials, no layoffs, stable management**
- ◆ **Strong partnerships: SIAC, Lowe's, Ericsson, etc.**



# European Market Partnering

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- ❖ SIAC Construction – Ireland & UK
  - ❖ Revenues of \$600 million in 2008
  - ❖ Ireland's largest civil engineering company
  - ❖ Making a substantial investment in small wind market development and Bergey distribution
  - ❖ Building towers

**SIAC**  
CONSTRUCTION



# U.S. Market Partnering

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- ❖ Lowe's begins selling Bergey 10 kW turbines 2<sup>nd</sup> Qtr 2010
  - ❖ \$48 Billion in 2008 revenues, 47<sup>th</sup> on Fortune 500
  - ❖ 1,675 stores in U.S. and Canada
  - ❖ 14 million shoppers per week
  - ❖ "Energy Center" pilot launches with 21 stores in California
  - ❖ Bergey turbines to be installed at stores beginning 4Q-2010



# Growth in Competition

- ◆ Respected “old” competitors with fresh venture capital
- ◆ New competitors emerging monthly – often stronger at marketing than engineering
- ◆ Cheap and unreliable Chinese imports causing havoc
- ◆ Now > 250 manufacturers worldwide



# Business Prospects

- ◆ **2009 was a rough year**
- ◆ **Future prospects are very good, but not without significant challenges**
  - ✓ **U.S. federal tax credit**
  - ✓ **U.K. Feed-In-Tariffs**
  - ✓ **Economies strengthening – consumer confidence & spending up, credit flowing again**
  - ✓ **Turbine certifications**
  - **Low PV prices**
  - **Energy slipping off radar screen**
  - **Bozos and shysters in the small wind market**
  - **Permitting barriers**



# Tipping Point, with exponential growth ?

# Close, but No:

- ◆ **UK and US will see solid growth**
- ◆ **Certifications in transition period, so crud still in the market**
- ◆ **Legitimate industry has “forward priced”, so net margins are tight to negative**
- ◆ *Permitting / planning permission remains the largest obstacle*

# Planning Permissions

- ◆ **What if utilities had had the same regulatory regime?**
- ◆ **UK SWT exemptions are on the right track, but short towers short-change customers**
- ◆ **Policy should follow majority opinion and stop pandering to a shrill minority**

# NIMBY's are the Luddites of our day and they are on the wrong side of history



Cultural Icon



Cultural Icon



Visual Insult?

# So, what's still needed?

- ◆ **Planning exemptions up to ~ 40m (130 ft), with common-sense restrictions and requirements (e.g., property size, set-backs, noise, etc)**
- ◆ **Vendor financing on competitive terms**
- ◆ **Partnering to reach potential customers**

# Thank you!

