The VolturnUS
Floating Wind Turbine Technology

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200 personnel
87,000 ft² space
17 years

1,400 Students
$100 Million R&D

Composites Industry

Construction Industry
Global Industry Awards

- 2007 ACMA Best of Show
- 2007 ACMA People’s Choice
- 2009 ACMA Most Creative Composites Product
- 2010 ACMA Most Creative Composites Product
- 2011 ASCE Pankow Innovation Award
Maine Family Budget

Energy ~5%  
1998

Energy ~20%\(^2\) at $4/gallon  
2008, 2012

Energy ~40%\(^3\)  
2018

“Family Energy”\(^1,2\) = 50% Transportation  
40% Heating  
10% Electric Power

\(^1\) Source: Dr. George Hart, UMaine  
\(^2\) Based July ’08 energy costs  
\(^3\) Assumes that health care costs do not grow past 30% of the average family budget in 2008-2018
US Offshore Wind Resource

In Maine alone, this is equivalent to roughly 156 nuclear power plants!
Maine Timeline: 5GW Floating by 2030

- Phase 2 - 1: Prototype
- Phase 1 - 1:50 Scale
- Phase 3 - Pilot Farm: 12 MW
- Phase 4 - 500 MW Farm
- Phase 5 - 5 GW by 2030

2013: Won 1 of 7 DOE FOAs Pilot Farms.
#1 Technical Challenge: $5M/MW
Reduce the Cost of Offshore Wind

Supply Standard Offer - Historic and Projected - BHE

- Small
- Medium
- Large
- Linear (Small)
- Linear (Medium)
- Linear (Large)

# years after 2000
European Fixed-Bottom Turbines
VolturnUS 1:8 Tow-out Validated
DOE FOA DE-FOA-0000410

Advanced Technology Demonstration Projects

Our Team Wins National Competition

2013 – 50% design
2014 – 100% design, costs
2015 – Start construction
2017 – Connect to Grid

Aqua Ventus I
Two Utility-Scale
In Castine, Maine, on June 13, 2013, at noontime, the first offshore wind electrons started to flow into the US electricity grid.

2017- Pilot Project
2020’s – Commercial Farms

Thank you!