U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy







Building U.S. Offshore Wind: Advanced Technology Demonstration Projects

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A National Offshore Wind Strategy

Goal: Reduce Cost of Energy

Goal: Promote Responsible Deployment

- **Inform** citizens and decision makers
- **Convene** leaders and **facilitate** national and international information exchange
- **Support** innovative partnerships to research, develop, and demonstrate unique technology solutions to challenging problems
- **Enable** responsible deployment by addressing environmental concerns, market risks and permitting delays

"DOE, as a non-regulatory agency, is in a unique position to provide ***national leadership*** through collaborative partnerships with other federal agencies, the states, academia, and industry."
- *National Offshore Wind Strategy,* February 2011

DOE Funding Activities Aligned with National Strategy

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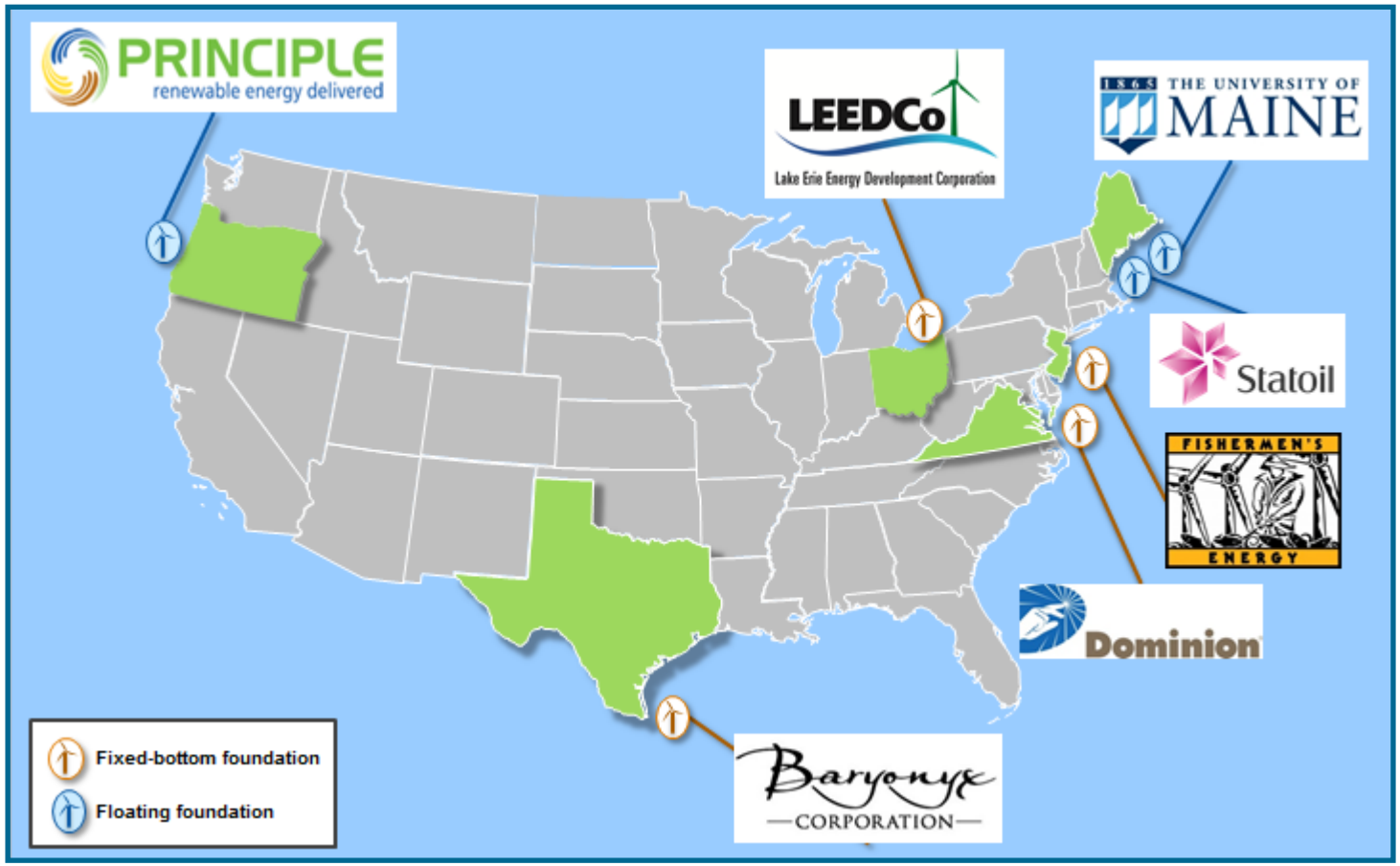
World Class Test Facilities	Removing Market Barriers	Next Generation Drivetrain R&D	Developing Innovative Technology	Demonstrate Next-Generation Designs
ARRA Projects	**Offshore FOA #1**	**Tech. Viability FOA**	**Offshore FOA #2**	**Offshore FOA #3**
Clemson 15 MW Dynamometer Massachusetts Large Blade Test Facility (to 90m)	Siting and Permitting Infrastructure Resource Planning	Aggressively Targets Key Cost Components	Computational Tools Turbine Design Marine Systems Engineering	Demonstration Projects Full Scale Demonstration of Advanced Technologies
$70M	**$16.5M**	**$7.5M**	**$26.5M**	**$168M**

OSW Demonstration Project Goals

"DOE seeks to provide support for regionally-diverse Advanced Technology Demonstration Projects through collaborative partnerships"



Offshore Wind Demonstration Projects: Goals

Support the development of a world-leading domestic offshore wind industry that provides clean wind energy to the U.S. and abroad

- Establish commercial scale offshore wind demonstrations to validate technology
- Establish an infrastructure and supply chain for the domestic offshore wind industry
- Facilitate development of the regulatory framework for domestic offshore wind installations

OSW Demonstration Project Goals

- **Install innovative offshore wind systems in U.S. waters, rapidly and responsibly**
- **Drive down the cost of offshore wind with demonstration project innovations**

Advanced Materials

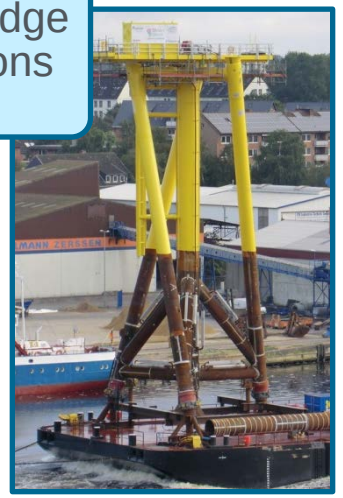
Demonstrating Innovations

Improved Manufacturing

Floating Platforms

Large Direct Drive Turbines

Leading-Edge Foundations



OSW Demonstration Project Goals

- Evaluating current siting and approval processes and identifying opportunities for improvement
- Address public concerns associated with the concept of offshore wind
- Reduce environmental uncertainties by creating an opportunity for learning

Demo FOA Timeline

Budget Period 1

- Start Date: February 15, 2013
- Duration: 1-year
- Down-select: 2014
- Goal: 50% FEED, viable path for 2017 commissioning
- DOE Cost Share: $28 Million

Down-Select

Budget Periods 2-5

- Start Date: 2014
- Duration: Through 2017
- Up to 3 projects
- Goal: Deployment and grid connection by 2017
- DOE Cost Share: $140 Million

DOE NEPA Process

- BOEM is lead NEPA agency
  - DOE is a Cooperating Agency
  - Efficient use of resources and streamlines the process
  - Enhances agencies ability to adopt environmental documents
- DOE will conduct independent review of EA
  - If DOE concludes its NEPA requirements, comments and suggestions have been satisfied, DOE can adopt the document
  - DOE will issue its own decision document
- DOE/EERE NEPA documents are posted at: http://www.eere.energy.gov/golden/Reading_Room.aspx

Contacts

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Manages DOE NEPA Process for Offshore Wind Demo Projects

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Manages Offshore Wind Demonstration Projects

Questions on DOE NEPA may be directed to: gonepa@go.doe.gov