CONCEPT: Joint Initiative on Great Lakes Wind Energy

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Kerry Duggan
Senior Advisor, EERE
Today’s objectives

• Introduce a nascent U.S.-Canada joint initiative to accelerate the development of wind energy in the Great Lakes

• Open a dialogue on the right approach for this effort, and gather specific feedback on your interests and priorities

• Build momentum for broader collaboration – all of you will be instrumental in the ultimate success of this effort
Capturing the opportunity

**Energy & environmental goals:**
- Double U.S. renewable energy generation capacity by 2012
- 80% CO₂ reduction by 2050

**Jobs in the Great Lakes region:**
- Rapidly evolving regional supply chain
- Robust manufacturing capabilities, in place today; history of industrialism

**Brownfields/industrial resources:**
- Opportunity for industrial sites with transmission infrastructure
- Re-development opportunity for brownfield sites on the shoreline

**State & Provincial efforts:**
- State & Provincial collaboration for offshore wind underway
- Wind energy is/can be a key element of Renewable Portfolio Standards being put in place

**Undeveloped offshore wind:**
- GLWC focused on enabling offshore wind development
- Ontario pushing major offshore efforts

**Opportunity for joint U.S.-Canada initiative**
Three pillars of a joint U.S.-Canada initiative

U.S. – Canada Initiative to support Great Lakes wind energy

1. Accelerating wind development on brownfields/industrial sites

2. Enhancing the regional manufacturing supply chain for wind infrastructure

3. Enabling offshore wind development in the Great Lakes
Accelerating wind development on brownfields/industrial sites

Goals

Mid-term: Facilitate supply chain growth by providing a regional market for wind project components

Mid-term: Promote brownfields redevelopment for wind energy generation, manufacturing, or staging

Long-term: Facilitate offshore wind development by building wind experience among regulators and utilities

Potential activities

• Detailed site assessments to inform decisions on brownfields utilization

• Regional wind energy benefits analyses

• Selection of key sites for wind energy demonstration projects

• Redevelopment of lakeshore industrial sites (e.g., ports) as offshore wind staging areas
## Enhancing the regional manufacturing supply chain

### Goals

Long-term: Facilitate the growth of a regional offshore wind industry by developing complementary infrastructure related to the fabrication and installation of offshore turbines

### Potential activities

- Assessing the region’s existing manufacturing base and its potential role in the wind infrastructure supply chain
- Building a regional wind workforce through education programs
- Assessing opportunities for free trade zones and trade agreements
- Planning, developing, and building joint infrastructure projects
- Planning, developing, and building offshore wind turbine assembly and staging facilities on brownfield sites
- Researching opportunities for the joint manufacture and use of Great Lakes-specific offshore wind installation vessels
Enabling offshore wind development

Goals

Long-term: Make deployment of offshore wind turbines in the Great Lakes a centerpiece of the regional wind industry

Potential activities

- Interagency and intergovernmental collaboration on planning, implementing, and regulating offshore wind energy in the Great Lakes
- Technology R&D on unique Great Lakes design conditions
- Turbine and foundation optimization
- Design of specialized installation vessels and methods
- Development of a Great Lakes offshore wind testing facility
- Resource characterization campaign to gather detailed meteorological and hydrological data
- Interagency collaboration to develop a Programmatic Environmental Impact Statement and related environmental risks assessment and mitigation research
Call to action

- We have the opportunity to bring together all of these forces to accelerate the development of wind energy in the Great Lakes.

- No single entity can surmount all of these challenges.

- The U.S. federal government can play a constructive role, but success is predicated on collaborative partnerships.
Path forward

Key questions – we need your input

• What are the high-impact areas for federal involvement in accelerating wind development in the Great Lakes region?
  – Wind on brownfields/industrial sites
  – Manufacturing, supply chain, and infrastructure
  – Offshore wind

• How can partnerships across all levels of government spur investment in this market?

• What approaches can this initiative take to ensure support from local jurisdictions?

• How do we better address electricity market concerns that stand in the way of long-term financing and PPAs?

• How can we better demonstrate to regulators and suppliers the value of brownfields/industrial wind as a worthwhile source of new generation?

• What lessons could be learned from other industries and applied to wind?

Next steps

Develop set of priority actions and research topics requiring interagency action. Successful implementation of those actions will involve collaboration with regional groups, trade groups, and intergovernmental bodies.

Strong presence for offshore wind energy in the Coastal and Marine Spatial Planning processes happening on the state/regional levels.

Reach high-level U.S.—Canadian agreement on near-term priorities ripe for binational collaboration.

Questions?
Kerry Duggan
Kerry.duggan@hq.doe.gov

Jacques Beaudry-Losique
Jacques.beaudry-losique@ee.doe.gov