Offshore Windpower Development in Ontario: Provincial Update and Ontario’s First Purchase Agreement

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Ken Cain
Manager – Renewable Energy Program
Ontario Ministry of Natural Resources
ken.cain@ontario.ca
Overview:

• Context: Offshore Windpower Development in Ontario

• Ontario’s Green Energy Act

• New Streamlined Approvals Process

• Ontario’s Feed-in-Tariff Program

• Ontario’s First Offshore Power Purchase Agreement: Windstream Wolfe Island Shoals Project

• Offshore Windpower - Ontario Policy Review

• Conclusions
Context: Offshore Windpower Development in Ontario

- Ontario’s Ministry of Natural Resources introduced a Windpower Crown Land Site Release Policy in 2004, which included provisions for making the beds of the Great Lakes available for offshore development.

- In 2008 Ontario Power Authority completed a study of windpower potential in the Ontario portion of the Great Lakes and identified 64 sites with over 35,000 MW of generating potential.

- Since 2004, Ontario has had three application windows and accepted 144 applications for offshore wind development projects in Lakes Ontario, Erie, St. Clair, Huron and Superior.
Ontario’s Green Energy Act

- **Green Energy Act** (May of 2009) sought to:
  - make Ontario a renewable energy leader
  - address climate change - phase out coal and procure 48% of province’s energy from renewables by 2025
  - encourage investment and create green jobs
  - Aboriginal and local community participation incentives
  - foster a culture of conservation

- Provide investor certainty by establishing:
  - a provincial, streamlined approval process and
  - a long term power purchase framework (FIT program)
New Streamlined Approvals Process

- Winter / Spring 2009 - GEA establishes legislative basis for new approval process for renewable energy projects

- Summer 2009 - New approval process and technical requirements established for wind, solar and bio-energy projects in Renewable Energy Approval Regulation and MNR’s Approvals and Permitting Requirements Document

- September 2009 - MNR launched review of Crown land application processes to align with GEA, with initial focus on onshore wind projects
Ontario’s Feed-in Tariff (FIT) Program

- Launched in October 2009, Ontario Power Authority’s FIT Program includes:
  - standard prices, 20 year contracts (40 years for waterpower)
  - Ontario content requirements (50%)
  - range of technologies included (wind, solar, waterpower, bio-energy) prices vary by technology and size
  - $0.19/kWh for offshore wind

- Before construction of a project, developer must receive all necessary environmental and grid connection approvals
- April 2010 - OPA offered 184 large scale contracts, totalling 2,420 MW of capacity (49 on Crown land and 135 on private land), including 50 onshore wind and one offshore wind projects
Ontario’s First Offshore Windpower Purchase Agreement: Windstream Wolfe Island Shoals

• 300 MW offshore project proposed for eastern part of Lake Ontario near Kingston

• Planned for a lake bed area covering over 50,000 acres

• Wolfe Island Shoals has recently signed a 20 year FIT contract with the OPA

• $1.5B (CAN) project with approximately 100 turbines

• Planned operation by 2015/16 period
Location: Wolfe Island Shoals Project
Offshore Wind – Ontario Policy Review

Ministry of Environment - June 2010 Public Consultation Initiated

• Seeking feedback on additional regulatory and technical requirements for offshore wind facilities

• 5 kilometre shoreline exclusion zone proposed

Ministry of Natural Resources - August 2010 Public Consultation Initiated

• Seeking input on potential considerations or criteria for areas that could be constrained from offshore wind development

• Reviewing how and when Crown (public) land is made available for offshore development
Potential Constraint Considerations

- Areas that may be constrained from future offshore wind development could include:
  - Shoreline exclusion zone (e.g. setback)
  - Navigational lanes
  - Areas of core commercial fishing activity
  - Sensitive environmental and ecological areas and features
  - Areas subject to important recreational activities
  - Cultural heritage features
  - Areas of natural gas activity
  - Inland lakes
  - Great Lake specific considerations
Conclusions:

• GEA and FIT continue to drive strong interest in renewable energy development opportunities in Ontario, including offshore wind

• Ontario has awarded first offshore power purchase agreement in Great Lakes Basin to Windstream Wolfe Island Shoals Inc.

• Province in midst of broad policy review of its overall approach to offshore wind development
  – may result in a shoreline exclusion zone and constrained areas
  – will provide clarity and certainty for offshore windpower development on Ontario’s side of the Great Lakes
Questions?
Appendix
Maps of Current Ontario Offshore Windpower Crown Land Applications
Lake Erie - Offshore Windpower Applications

Legend
- Settlement
- Offshore Windpower Application
- Canada - U.S. Border
- United States

Scale 1:1,250,000

Kilometers