

Canada's Marine Energy Opportunity

**NS R&D Forum
International Panel**

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Charting the Course

Canada's **Marine Renewable Energy**
Technology Roadmap

Vision:

The vision is for Canada to become a global leader in the delivery of clean wave, in-stream tidal, and river-current energy-production systems and technologies.



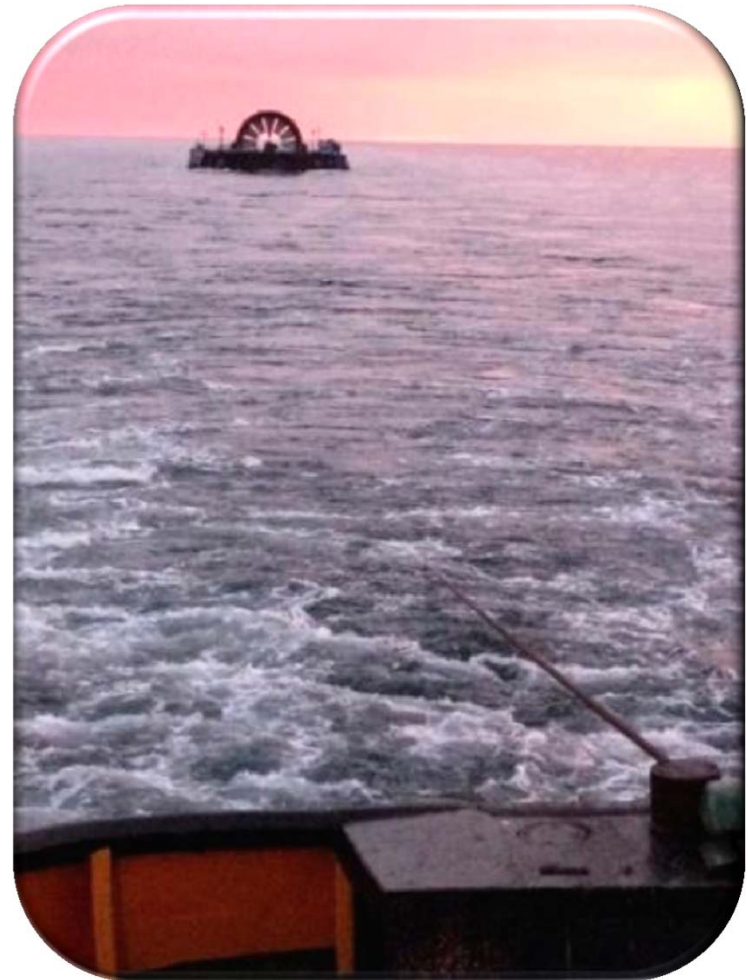
Nova Scotia is where Canada's vision for tidal will largely be achieved.

NS MRE Strategy Objectives

- Trust
 - Build and maintain public trust through science, accountability and transparency
- Sustainability
 - Develop approaches and technologies that are technically, economically and environmentally sustainable
- Economic Growth
 - Build an industry in Nova Scotia

Research

- Environment
 - Understanding key to success
 - Basic research on fish, sediments and energy extraction
- Technology
 - Global focus
 - Turbines
 - NS focus
 - Deployment, maintenance and monitoring



Technology Development



- Canada Support
 - Clean Technology
 - ecoENERGY Innovation Initiative
 - Sustainable Technologies Development Canada
- Nova Scotia Support
 - Favourable policy climate
 - Feed-in-Tariffs
 - Small-scale community based \$0.625 per kwhr
 - 3 MW awarded
 - Larger-scale at FORCE – to be set in 2012
 - 5 MW currently permitted

Supplier Development



- Established chain
 - Offshore petroleum industry
 - Vessels and structures
 - Shipbuilding
 - Canada's largest shipyard in Halifax
 - \$30 billion military contract recently awarded
- Seeking opportunities
 - Leverage off numerous strategies and supports

- New licence structure proposed
 - Technology Development
 - Focus on today's challenges
 - Supported by Feed-inTariffs
 - Power Development
 - Awarded when commercial interests are prepared to engage in long-term strategy for competitive renewable energy
 - Initial access to FIT
 - 300 MW licence would be expected to achieve critical industry experience

- Commitment to industry best practice
 - Statement under development to commit to:
 - Stakeholder engagement,
 - Transparency,
 - Environmental monitoring and reporting, staged; and
 - Incremental growth
 - Expected to be condition of licence
 - Collaborative effort of
 - Canada's Department of Fisheries and Oceans; and
 - Provincial Departments of Energy
 - With input and advice from scientists and industry

- Independent and effective regulator
 - As industry grows coordination not enough
- Forums
 - Maintain critical information flows
 - Cross-pollination of interests
 - Research Forum
 - Stakeholder Forum
- Strategic Environmental Assessments
 - Key tool to formally marry science and public interest

Next Steps 2012



- Call for proposal on additional berth at FORCE
- Establish Forums
- Further consult on licencing and feed-in-tariffs
- Establish FIT's
- Install infrastructure at FORCE