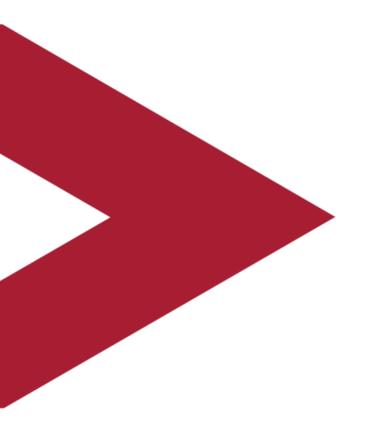
Prevailing Winds: **Regulatory Frameworks and Commercial Realities for Developing Wind and Green** Hydrogen Projects in Nova Scotia and Newfoundland and Labrador

think: forward



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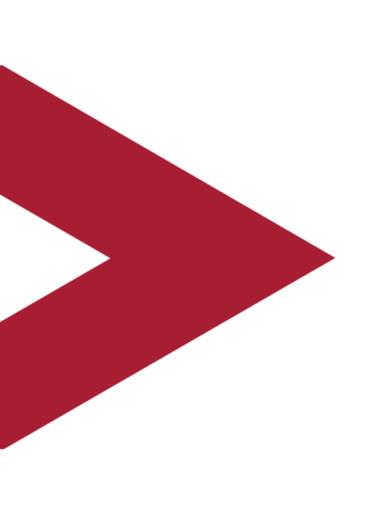
Jamie Gamblin Halifax, NS



Introduction

- Growing enthusiasm for wind energy and green hydrogen development in Atlantic Canada
 - Export Potential for European Markets.
 - Renewable energy goals in Nova Scotia
 - Removal of statutory restrictions in Newfoundland and Labrador
- Expected rapid pace of development
- Regulatory Frameworks and Commercial Realities





Road Map

- 1 Background: Energy Production and Regulation
- 2 Onshore Wind Energy in NS and NL
- **3** Offshore Wind Energy in NS and NL
- 4 Green Hydrogen Production
- **5** Offshore Wind Energy in Europe
- 6 Challenges Faced in NS and NL
- 7 Conclusions
- 8 Questions?

nd Regulation

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1. Energy Production and Regulation in NS and NL



Energy Production and Regulation in Nova Scotia

- Historic reliance on coal
- Environmental Goals and Climate Change
 Reduction Act
- Renewable Energy Regulations renewable
 electricity requirements
- Renewable power from Maritime Link



Energy Production and Regulation in Newfoundland and Labrador

- Current energy sources in Newfoundland and Labrador
- Hydro Quebec contract
- Impact of *Electrical Power Control Act*



2. Onshore Wind Energy in NS and NL



Onshore Wind Energy in Nova Scotia

- Current onshore wind energy production in Nova Scotia
 - o 11% from onshore wind (2019)
- August 2022 Onshore Contracts Awarded.
 - o 372 MW total
 - 12% of electricity consumption
- Class I Environmental Assessment Approval



Onshore Wind Energy in Newfoundland and Labrador

- End of the :Moratorium on Wind Development"
- Government of NL: Guidelines: Nominating Crown Lands for Wind Energy Projects
 - Phase 1
 - Phase 2
 - "Wind application recommendation letter"
- Projected taxes on wind projects in Newfoundland
 - \circ Land
 - Wind
 - Water Ο

3. Offshore Wind Energy in NS and NL

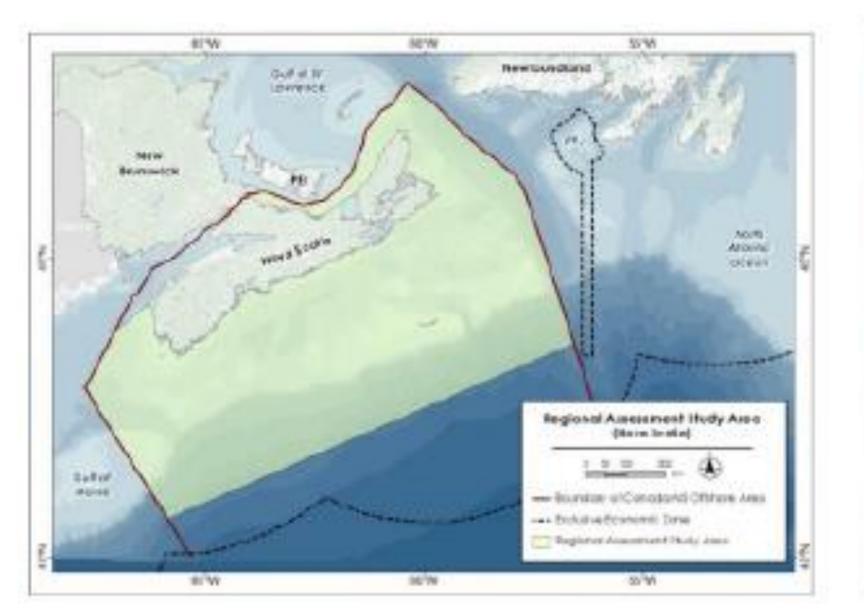


Offshore Wind Energy in Nova Scotia and Newfoundland and Labrador

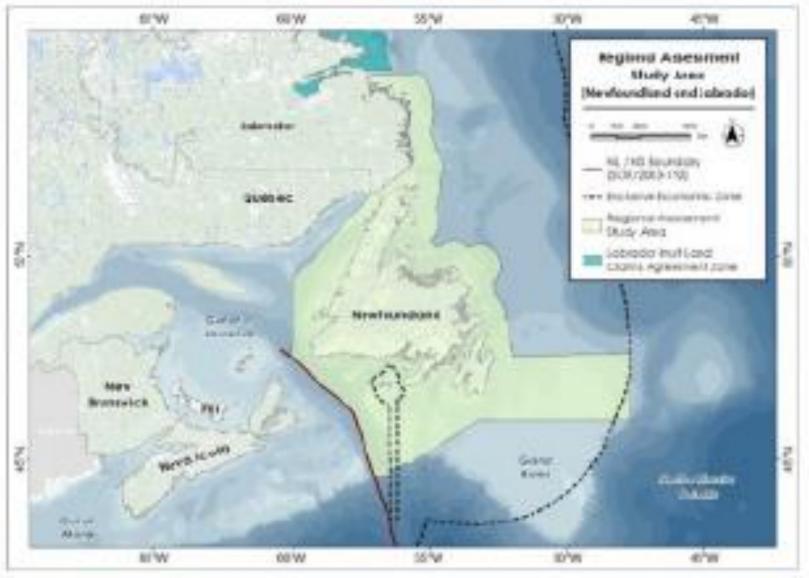
- Canada-Nova Scotia Offshore Petroleum Board (C-NSOPB) and Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) modernization.
- Offshore wind development regional impact assessments
 - Provincial and Federal jurisdiction
 - Goals and objectives of regional impact assessments
 - Portions of offshore areas in Nova Scotia and Newfoundland and Labrador under Regional Assessment study

Offshore Wind Energy in Nova Scotia and Newfoundland and Labrador: Study Areas

Nova Scotia



Newfoundland and Labrador



4. Green HydrogenProduction inAtlantic Canada



Green Hydrogen in NS

- Connection between the development of offshore wind and green hydrogen production
- Legislative, regulatory and policy changes in NS to support development of green hydrogen
- Issuance of first Environmental Assessment Approvals for a green hydrogen projects on Canso Strait

Green Hydrogen in NL

- Environmental Assessment Approval sought for Port au Port Stephenville project.
- Significant interest in:
 - Come By Chance, Argentia, Placentia Bay, Trinity Bay, Burin Peninsula, Ο **Exploits Valley**
 - Declaration of Intent with City of Hamburg to cooperate in green Ο hydrogen.
 - MOU signed by NL and Port of Rotterdam to cooperate in green Ο hydrogen

5. Offshore Wind and Green Hydrogen in Europe



Offshore Wind and Green Hydrogen in Europe

- Long history and mature regulatory regimes
- Developed supply chains
- Standards for green hydrogen under EU *Renewable Energy Directive and regulations:*
 - o Direct line to renewable energy
 - Grid connection requirements:
 - 1. Additionality
 - 2. Temporal Correlation
 - 3. Geographic Correlation



6. Challenges for NS and NL



Challenges for Nova Scotia and Newfoundland and Labrador in Developing Wind Energy

- Challenges for Nova Scotia
 - Aggressive timelines
 - Demand for renewable energy Ο
 - Suitability of existing regulatory Ο frameworks
 - Supply chain and procurement issues

- Labrador
 - Playing catch up 0
 - Site control for proponents 0
 - **Fiscal modelling** Ο
 - Grid capacity Ο

Challenges for Newfoundland and

Conclusions



Conclusions

- Shared challenges in future green energy development • Consistent regulatory approach
- Different challenges in developing onshore wind energy
- Future of green hydrogen development in Nova Scotia and Newfoundland and Labrador
 - Renewable electricity needs in Nova Scotia
 - Grid infrastructure constraints in Newfoundland and Labrador \bigcirc

Questions?

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These materials are intended to provide brief informational summaries only of legal developments and topics of general interest.

These materials should not be relied upon as a substitute for consultation with a lawyer with respect to the reader's specific circumstances. Each legal or regulatory situation is different and requires review of the relevant facts and applicable law.

If you have specific questions related to these materials or their application to you, you are encouraged to consult a member of the Firm to discuss your needs for specific legal advice relating to the particular circumstances of your situation.

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