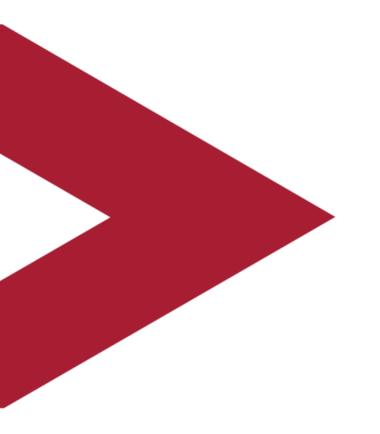
Prevailing Winds: **Regulatory Frameworks and Commercial Realities for Developing Wind and Green** Hydrogen Projects in Nova Scotia and Newfoundland and Labrador

think: forward



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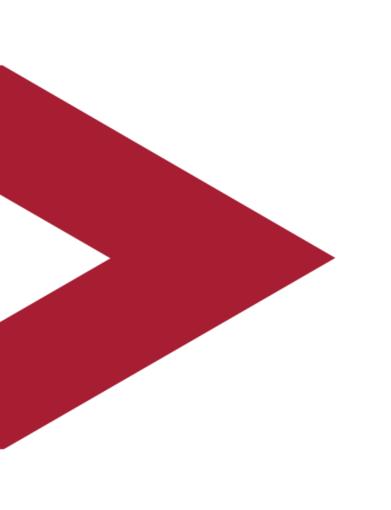
Jamie Gamblin Halifax, NS



## 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

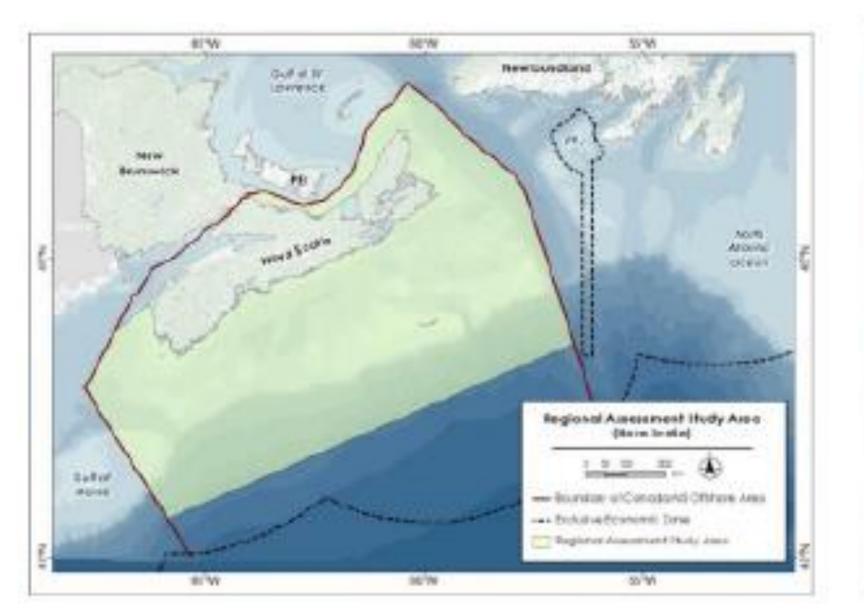


## Offshore Wind Energy in Nova Scotia and Newfoundland and Labrador

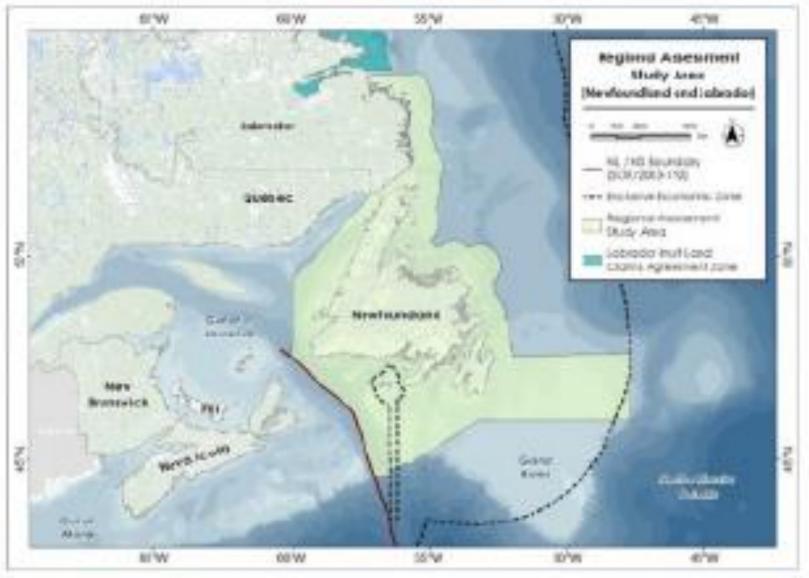
- Canada-Nova Scotia Offshore Petroleum Board (C-NSOPB) and Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) modernization.
- Offshore wind development regional impact assessments
  - Provincial and Federal jurisdiction
  - Goals and objectives of regional impact assessments
  - Portions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

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