Lessons Learned from U.S. Offshore Wind: Insights for Canada's Nova Scotian Shelf Leasing Round

Authors:

Cynthia Pyc, IBN Environmental & Geomatics Bruce Samuel, Marine Geoscience Consulting LLC Eric Fischer, Marine Geoscience Consulting LLC

Abstract ID: 46

Call:: MRC 2025 Technical Track - Call for Abstracts What Theme Are You Submitting for?: Policy, Regulation, and Governance Keywords: cultural, economic, gaps, geophysical, geotechnical, indigenous rightsholders, social priorities, stakeholders

As Canada prepares for its first offshore wind leasing round in 2025, the Canadian government has announced plans to accelerate the permitting process for large-scale, 'nation building' projects. This federal initiative mirrors U.S. efforts to reform offshore wind permitting, prompted by delays and regulatory burdens that have hampered project viability. The resulting redeployment of renewable investment abroad highlights the importance of streamlined permitting processes, clear and consistent government policies, and proactive industry engagement. Drawing on two decades of U.S. offshore wind development, this paper explores critical lessons in four key areas: regulatory frameworks, site investigation practices, environmental assessments, and Indigenous and stakeholder engagement.

In the U.S., the Bureau of Ocean Energy Management (BOEM) oversees a multi-phased leasing and permitting process that includes federal interagency coordination and engagement with states and interested communities. This approach, which is similar to the Canadian regulatory process, offers practical insights for early-stage development through the construction phase of offshore wind projects. Reports from the U.S. Government Accountability Office highlight gaps in oversight and emphasize the need for improved data collection during geophysical and geotechnical assessments while key developer takeaways include the need for agency alignment and cross sector consistency. Similarly, regulator-supported environmental impact assessments provide guidance on balancing offshore wind development with environmental conservation including wildlife protection.

Equally important is the emphasis on early, meaningful engagement with Indigenous rightsholders and local stakeholders to ensure cultural, economic, and social priorities are reflected in project design and implementation.

By examining these U.S. experiences, this study identifies strategies to help Canada achieve its streamlined permitting objective while reducing risk and fostering a socially inclusive and environmentally responsible offshore wind sector. These insights are especially timely as Canada seeks to position itself as an "energy superpower".