



PROPOSED BENJAMINS MILL WIND PROJECT OPEN HOUSE MATERIALS

April 4, 2023

—

Contact

community@naturalforces.ca

902-483-9592

www.naturalforces.ca/benjamins-mill-wind-project.html



Project Overview

The proposed Benjamins Mill Wind Project is located in Mi'kma'ki, the ancestral and current territory of the Mi'kmaq. Natural Forces acknowledges that working on these lands is a privilege that comes with a great deal of responsibility. The proposed Project is being developed by Natural Forces and Wskijinu'k Mtmo'taquuow Agency (the Proponents), and will be built in several phases. As such, the proposed Project could have an approximate total capacity of up to 150 MW, representing up to 28 turbines.

The proposed Project is approximately 13 km southwest of Windsor and over 1.5 km from the communities surrounding Falls Lake. Landowners use the proposed Project lands for active forestry operations. Existing infrastructure, such as access roads and transmission lines, will be used to minimize the footprint of the proposed Project.

As of October 2022, the first phase of the proposed Project has been awarded a contract to sell the generated electricity to Nova Scotia Power through the Nova Scotia Rate Base Procurement program. The first phase of the proposed Project consists of up to 8 wind turbines or approximately 33.6 MW of installed capacity.

The proposed Project still requires all environmental and land use permits and the Proponents will continue stakeholder consultation and Rightsholder engagement throughout all phases of the proposed Project, including prior to the start of construction. Construction is expected to begin in the spring of 2023. Opportunities for additional power contracts are being explored with Nova Scotia Power, other smaller utilities in the province, and large corporations for the remaining proposed wind turbines.

Project Owners

Natural Forces

Natural Forces is a private independent power producer that delivers renewable energy projects in partnership with local communities across Canada, the United States, and Ireland. Established in 2001 in Halifax, Nova Scotia, Natural Forces remains a small company with big values and big ambition.

Natural Forces develops, constructs, owns, and operates wind, solar, hydro, and storage projects with Indigenous communities, universities, municipalities, and local community funds. Partnering with local communities for these projects not only generates clean and renewable electricity but delivers local economic prosperity and raises awareness of the challenges of climate change.

Wskijinu'k Mtmo'taquuow Agency

The Wskijinu'k Mtmo'taquuow Agency Ltd (the Agency) is a limited partnership (LP) created by the 13 Mi'kmaw bands in Nova Scotia. Recognizing the need to build capacity and work with experts to participate in opportunities available in Mi'kma'ki, the traditional and current territory of the Mi'kmaq, the Agency was formed to develop partnerships with industry leaders.

Project Benefits

- Generate enough electricity to power up to 13,000 homes for the first phase (8 wind turbines), and 58,000 homes for a 150 MW Project.
- Provide up to \$7 million in tax revenue to West Hants Regional Municipality over the life of the first phase (8 wind turbines), and up to \$30 million over the life of a 150 MW Project.
- Create local employment and contracting opportunities during the development, construction, operation, and decommissioning phases of the Project.
- Increase revenue to the 13 Mi'kmaw bands in Nova Scotia through Project ownership, and to local businesses from economic spinoff.
- Produce emission-free electricity that will displace energy generated from fossil fuels, thereby reducing greenhouse gas emissions.
- Assist the province of Nova Scotia in meeting their renewable energy target to achieve 80% renewable energy on the electricity grid by 2030.
- Stabilize energy costs for Nova Scotia Power customers by increasing electricity generation sources with fixed cost contracts.

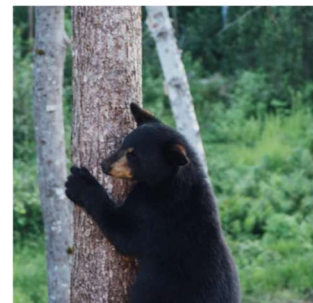
Environmental Studies

The proposed Benjamins Mill Wind Project requires a Provincial Environmental Assessment (EA). An EA was registered with the province on January 18, 2022. As of February 13, 2023, the EA has gained environmental approval from the Minister.

These studies are helping shape the Project to ensure it is developed responsibly and to mitigate environmental and socio-cultural impacts.

Topics of Study

- Wetlands and watercourses
- Breeding birds
- Migratory birds
- Common nighthawks
- Bats
- Archaeology
- Vegetation
- Wildlife and habitat
- Wind resource
- Sound
- Visual
- Geology



Sounds Levels

The most significant factor when limiting sound impacts to nearby residences is the way wind turbines are sited. As such, the proposed wind turbines have been located more than 1 km from any residence, which is further than the separation distance necessary to limit sound levels from turbine operation. Based on this siting, Natural Forces assessed the impact of sound levels from the proposed Benjamins Mill Wind Project on nearby homes. This assessment uses industry best practices to model how the sound created by the wind turbines will travel over the landscape.

Based on feedback received from stakeholders, Natural Forces engaged a third-party consultant to review the methodology used to carry out this modelling and to validate the results. The company Aercoustics Engineering concluded that the methodology used by Natural Forces is appropriate and provides conservative results, likely overestimating the expected sound levels.

Results of the modelling show that sound levels potentially experienced by nearby receptors during the Project operation would be well below the provincial limit of 40 decibels. Under certain climatic conditions for short periods of time, the model estimates a maximum sound level at a residence of 32.3 decibels, which is comparable to leaves rustling in a tree.

The attached map visually shows the results of the sound modelling for all 28 wind turbines.

Project Timeline

Work Completed to Date

- Site identification
- Private land secured
- Installation of wind measurement instrumentation
- Initial engagement with Mi'kmaw bands
- Initial public and stakeholder consultation
- First interconnection study with Nova Scotia Power
- Environmental studies - 2 years
- Awarded a power contract for Phase 1 through the NS Rate Base Procurement Program
- Received approval on the Environmental Assessment

Ongoing Work

- Stakeholder consultation and Mi'kmaq engagement
- Mi'kmaq ecological knowledge study
- Application for municipal development agreement
- Application for lease on provincial Crown Lands
- Advanced interconnection studies with Nova Scotia Power
- Wind measurement study

Future Work

Phase 1

2023

- Final civil and electrical design
- Construction contract tender process
- Tree clearing
- Start of civil and foundation works

2024

- Start of electrical work
- Continuing civil works
- Turbine installation
- Site reclamation from construction activities

2025+

- Operation of turbines
- Post-construction environmental studies
- Site maintenance and upkeep
- Decommissioning

Phase 2 (Accelerated timeline)

2023

- Future procurement opportunities
- Power contract negotiation

2024

- Final civil and electrical design
- Construction contract tender process
- Tree clearing
- Start of civil and foundation works

2025

- Start of electrical work
- Continuing civil works
- Turbine installation
- Site reclamation from construction activities
- Operation of turbines
- Post-construction environmental studies
- Site maintenance and upkeep
- Decommissioning

Detailed Construction Schedule

Date	Activity	Tender process
March - April 2023	1 Tree clearing activities	
May 2023 - July 2024	2 Civil works	Tender out, due April 17 th , '23
August 2023 - December 2023	5 Collector lines	Tender to be sent out
August 2023 - November 2023	4 Turbine Foundations	Tender to be sent out once design is complete
June 2024 - August 2024	6 Wind turbine erection	
June 2023 - August 2023	3 Substation civil works	
June 2024 - September 2024	7 Substation electrical works	
July 2024 - October 2024	8 Project commissioning	

Benjamins Mill Wind Project

Proposed 28 Turbine Layout

Windsor Forks

Mines Road

Main access from
New Russell Road

Highway 14

Pioneer Drive

Falls Lake

Proposed Project Infrastructure

- Phase I Turbine Locations
- Future Turbine Locations
- Substation
- Transmission Interconnection
- New Collector Lines
- New Access Roads
- Existing Access Road

Existing Infrastructure

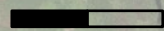
- Residences and Buildings
- 1 km Buffer from Residences
- Existing 138 kV NSPI Transmission Line
- Existing 69 kV NSPI Transmission Line
- Secured Private Lands
- Provincial Crown Lands

1. Turbine markers are not to scale.
2. Phase I turbines have been awarded contract by NSPI.
3. Future turbines are anticipated to be awarded contract through various opportunities.
4. This layout is subject to change pending permitting approvals, further wind resource analysis, and other factors.

Scale: 1:50,000

Kilometers

0 0.5 1



Benjamins Mill Wind Project

Proposed 28 Turbine Sound Level Map

Windsor Forks

Mines Road

Highway 14

Main access from
New Russell Road

Pioneer Drive

Falls Lake

- Phase I Turbine Locations
- Future Turbine Locations
- Proposed Substation
- Residences and Buildings
- 1 km Buffer from Residences
- Secured Private Lands
- Provincial Crown Lands
- Roads

Sound Level (dBA)

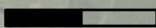
- 35
- 40
- 45



Scale: 1:50,000

Kilometers

0 0.5 1



1. The Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia requires that wind farm design and siting does not cause sound levels to exceed 40 dBA at the exterior of receptors.
2. Turbine markers are not to scale.
3. Phase I turbines have been awarded contract by NSPI. Future turbines are anticipated to be awarded contract through various opportunities.
4. This layout is subject to change pending permitting approvals, further wind resource analysis, and other factors.