



**WJU'SNEWIKNAQ**  
WIND STRENGTH

# Welcome

## COMMUNITY INFORMATION SESSION





**WJU'SNEWIKNAQ**  
WIND STRENGTH

# Thank you!

We appreciate you taking the time to join us.

We would be happy to follow-up with you if you have any other questions about the Projects.

Please fill out a feedback form.





# LAND ACKNOWLEDGEMENT



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## Recognition of the Mi'kmaq and their Ancestral Territory

We acknowledge the ancestral and unceded territory of the Mi'kmaq people. We also acknowledge the Mi'kmaq as the past, present, and future caretakers of this land, Mi'kmaki.

We are committed to working with Mi'kmaq and delivering a comprehensive partnership on all aspects of the project. EverWind's Nova Scotia Projects include three Mi'kmaq equity partners and champion meaningful engagement with Rightsholders and the advancement of social and economic reconciliation.





# ABOUT WIND STRENGTH

Wind Strength, a Membertou company, is planning to jointly develop Bear Lake Wind Power Project with EverWind Fuels and RES. Wind Strength is a translation of the Mi'kmaq word “Wju'snewiknaq” (Wu-jew-sin-eh-wee-ginn-ah), which embodies the strength, resiliency, and environmental stewardship of the Mi'kmaq people through green energy leadership. For generations, Mi'kmaq were prevented from participating in and benefitting from the development of Canada's natural resources. Today, as the past, present, and future caretakers of this land, we are proud to be at the forefront of building a cleaner future for Nova Scotia and the world.

**Green**  
For a cleaner, greener future for Nova Scotia

**Teal Blue**  
The traditional Mi'kmaq colour found in artwork, beading and regalia from centuries ago and today.

**WJU'SNEWIKNAQ**  
*WIND STRENGTH*

**Wju'snewiknaq**  
Wu-jew-sin-eh-wee-ginn-ah-  
Mi'kmaq for Wind Strength

**The Seven Shapes**  
Representing the value to plan and act in accordance for the prosperity of the next seven generations.



**WJU'SNEWIKNAQ**  
*WIND STRENGTH*





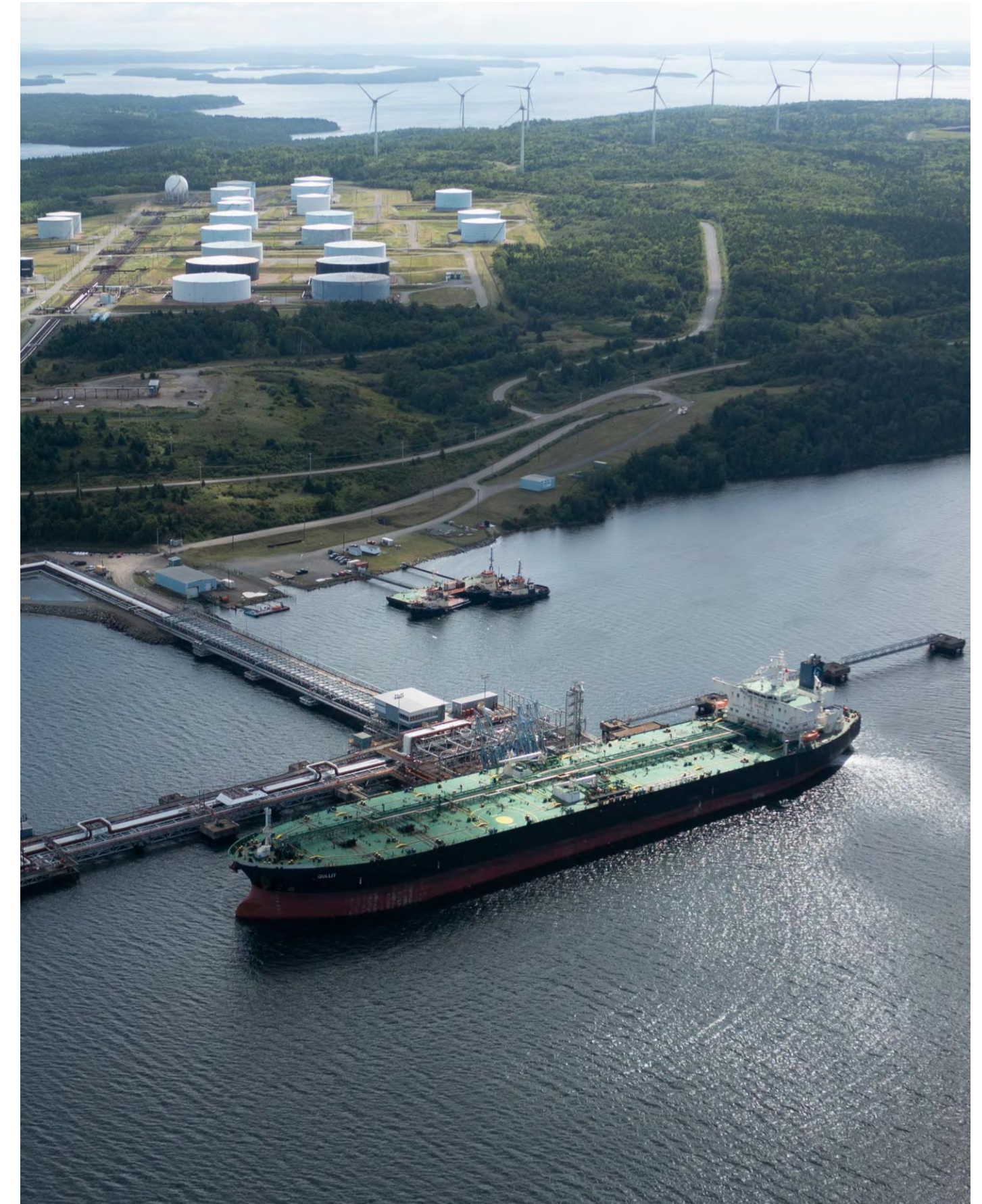
# ABOUT EVERWIND



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EverWind Fuels LLC (EverWind) is a developer of green hydrogen and ammonia production, storage facilities, and associated transportation assets. The EverWind Fuels team is comprised of over 100 employees, mostly from the local community, who are further supported by full time contractors and consultants.

We are developers, owners, and managers with experience in almost every infrastructure sub-category in North America, and a track record of success and delivering socially and environmentally responsible developments for all of our stakeholders.



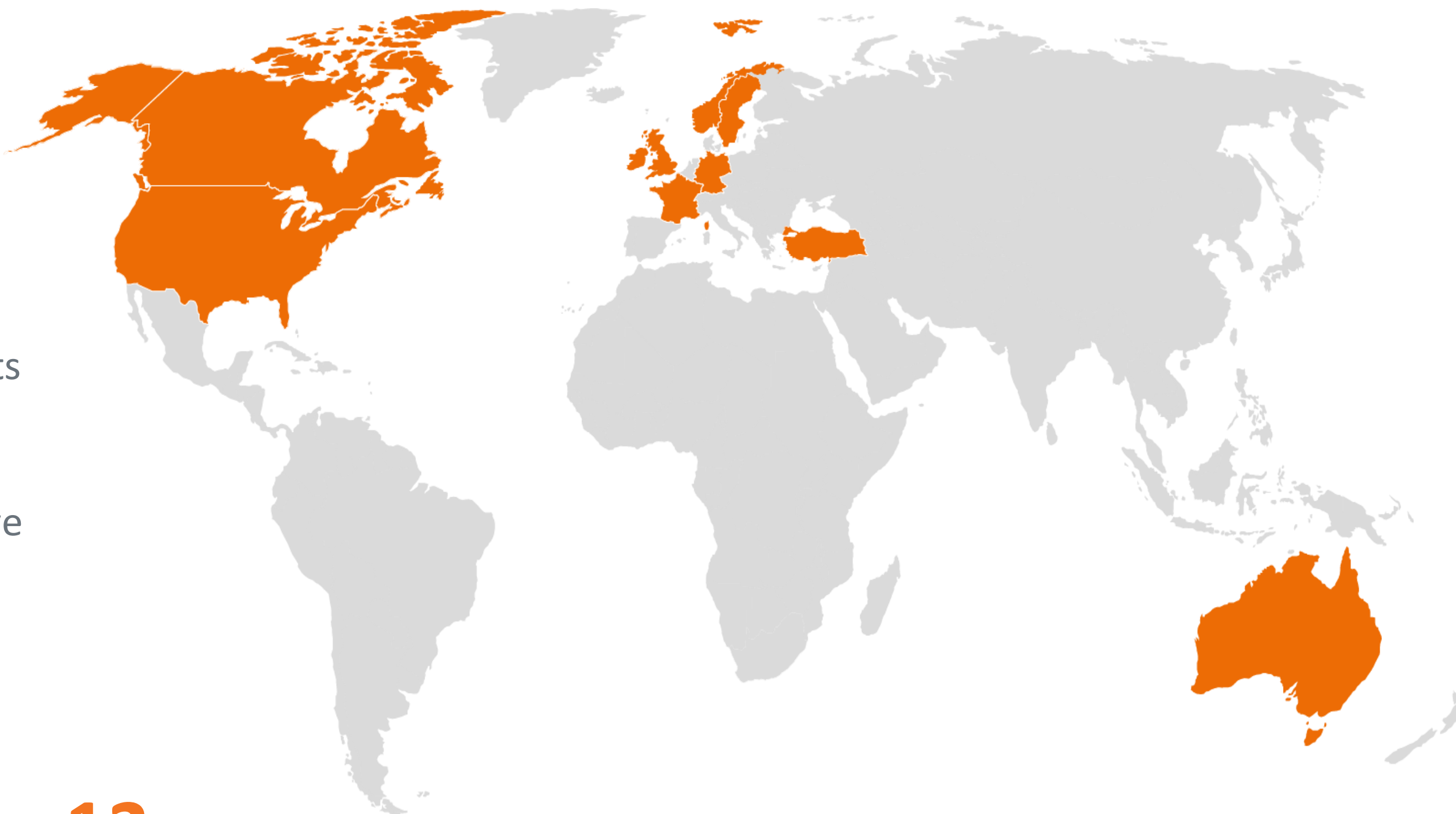


# RES EXPERIENCE



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RES is the world's largest independent renewable energy company. At the forefront of the industry for over 40 years, RES has delivered more than 23 GW of renewable energy projects across the globe and supports an operational asset portfolio exceeding 12 GW worldwide for a large client base. RES employs more than 4,000 people and is active in 11 countries working across onshore and offshore wind, solar, energy storage and transmission and distribution.



**23** GW PORTFOLIO

**42** YEARS OF EXPERIENCE

**12** GW ASSETS



WIND



SOLAR



STORAGE



T&D

**res**<sup>®</sup>  
power for good<sup>®</sup>



# HOW WIND POWER WORKS

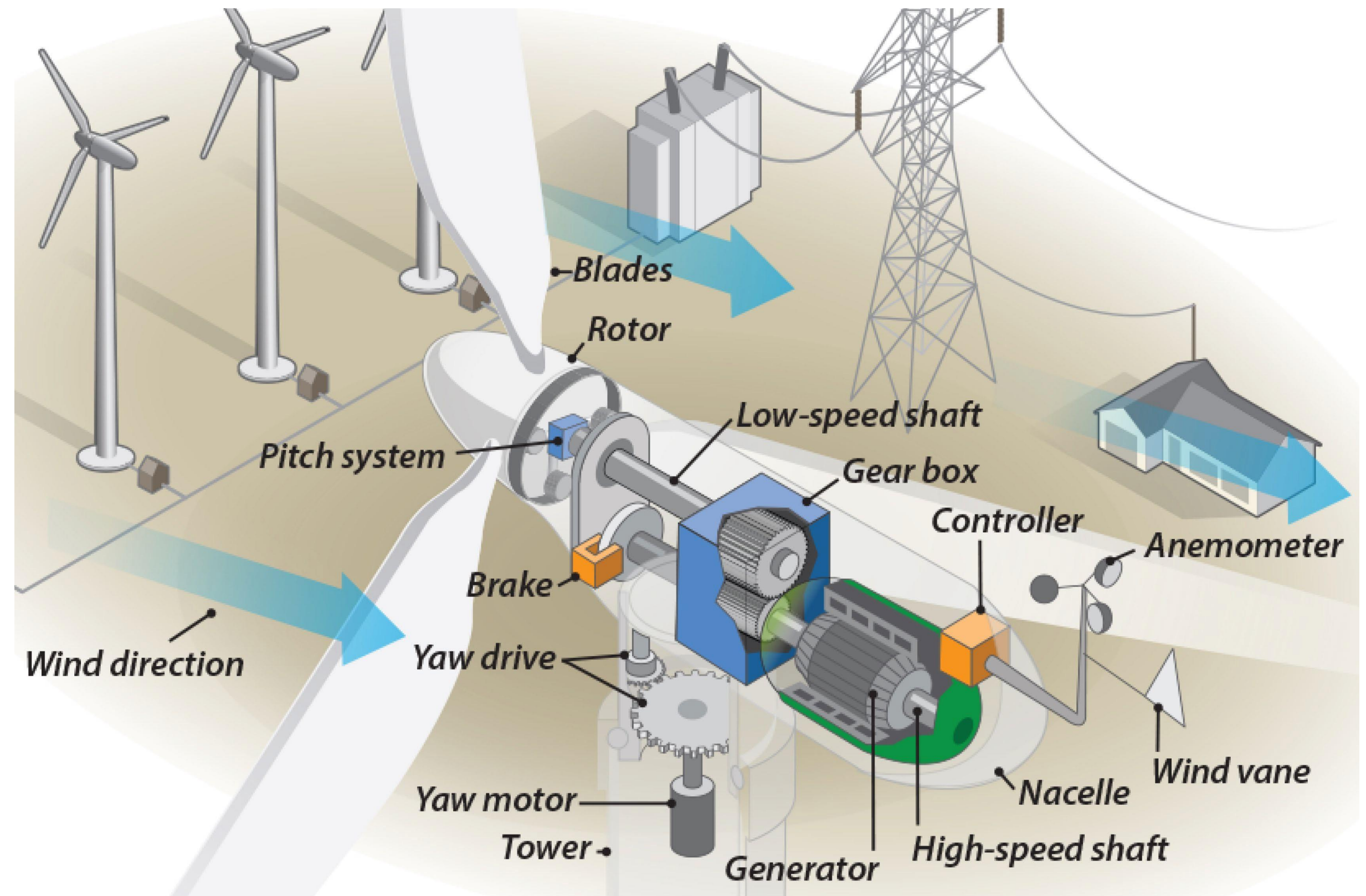


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Modern turbines have three main components: the tower, the nacelle (or generator) and the blades.

The blades rotate when the wind blows and are attached to a gearbox in the nacelle, which turns the generator and produces electricity.

Electricity is then converted to a medium voltage AC current, transmitted via cables and is collected at a substation before being transmitted by overhead lines to the main electrical grid.





# PROJECT DETAILS



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<b>Project Size (Maximum)*</b>	<b>Up to 89 MW</b>
<b>Ownership</b>	51% Membertou 49% EverWind
<b>Location</b>	West Hants, Chester, Halifax Regional Municipality
<b>Number of Turbines*</b>	Up to 15 Turbines
<b>Number of Turbines on Private / Crown Land*</b>	Up to 7 on Crown Land Up to 8 on Private Land
<b>Turbine Model*</b>	Nordex N163 5.9MW
<b>Hub Height*</b>	Up to 125 m
<b>Blade Length*</b>	Up to 81.5 m
<b>Length of New Roads (approx.)*</b>	~16 km
<b>Length of Existing Roads (approx.)*</b>	~25 km
<b>Final Substation Footprint</b>	Up to 2.5 acres
<b>Final O&amp;M Building Footprint</b>	Up to 1 acre

\*Subject to change pending final turbine model selection.

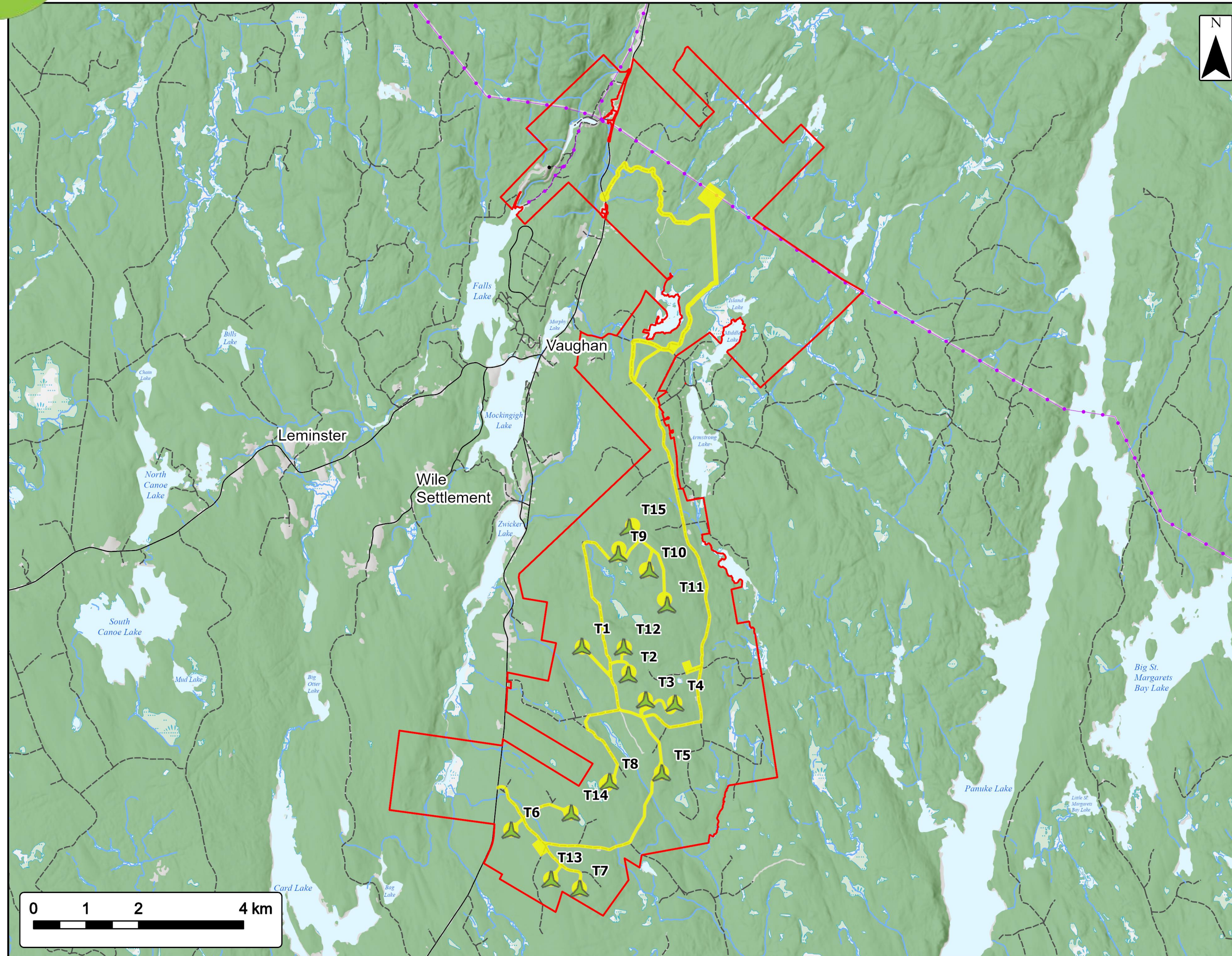




# PROJECT MAP



**WJU'SNEWIKNAQ**  
WIND STRENGTH



## Bear Lake Wind Power Project Site Overview



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Study Area	
Assessment Area	
Proposed Turbine Location	
<b>Utilities (line)</b>	
Existing Pipeline	
Existing Transmission Lines	
<b>Transportation</b>	
Road	
Unpaved Road	
<b>Water Features</b>	
Mapped Stream	
Mapped Indefinite Stream	
Mapped Lakes and Rivers	
Mapped Wet Area	



Coordinate System: UTM Zone 18N  
Sources: ESRI Basemaps, GeoNOVA, SHSIS, IIRCan, IISI/IRR, ACCDC, IBA Canada

Date:	Oct 2023	Project #:	23-9128
Scale:	1:70,000	Drawing #:	<b>2.2</b>
Drawn By:	K. Wallace		
Checked By:	M. Savelle		

**strum**  
CONSULTING



# PROJECT SCHEDULE



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Environmental Studies Conducted	Spring–Fall 2023
First Community Open House	August 2023
Community Engagement Initiated	Summer 2023
Second Community Open House	September 2023
Environmental Assessment Submitted to NSECC	October 24, 2023
<b>Third Community Open House</b>	<b>December 7 &amp; 8, 2023</b>
Community Meetings - TBC	Winter & Spring 2024
Anticipated Receipt of Construction Permits	Summer 2024
Target Start of Construction	Summer 2024
Target Commercial Operation Date	Dec 31, 2025

N.B. Schedule is subject to change. Engagement will continue through the life of the project





# MINIMIZING ENVIRONMENTAL IMPACTS



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Much of the Project site is previously disturbed from **historical and current forestry and recreational activities.**

**Membertou and EWF are aiming to minimize the environmental impact of the Project by:**

- ✓ **Prioritizing** existing logging roads.
- ✓ **Maintaining** large setbacks from residences and protected areas
- ✓ **Minimizing** impact to Old Growth Forest
- ✓ **Minimizing** impact to Wetlands and Watercourses
- ✓ **Minimizing** tree clearing

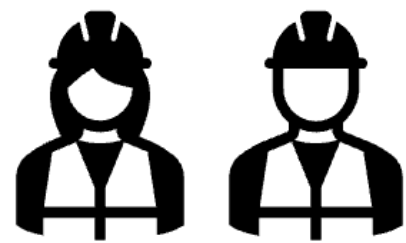




# COMMUNITY BENEFITS



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**We believe our projects are net positives for the local communities in which we work.**

Benefits include:

- ✓ **Hundreds of millions of dollars** of investment
- ✓ **\$35 million** in project lifetime municipal tax & benefits paid to host municipalities and nearby residents
- ✓ **Contracting opportunities** for First Nations & local businesses
- ✓ **6-12 full-time and part-time jobs** and **hundreds of jobs** during construction
- ✓ **Increased local spending** on goods and services during the project's development, construction and operational phases



# LOCAL JOB CREATION



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These projects are currently employing dozens of local Nova Scotians and will generate considerable direct opportunities for both local companies & individuals during construction and operations.

## Hundreds of Direct Jobs During Construction:

- ✓ **Civil installation:** land clearing, forming, concrete supply, grouting, forming
- ✓ **Electrical installation:** overground installation, electrical testing, instrument installation
- ✓ **Turbine installation:** crane supply, turbine offload, mechanical and electrical work
- ✓ **Local businesses:** to benefit from increased local spending with larger local workforce

## 6-12 Part-Time and Full-Time Jobs during Operations and Maintenance:

- ✓ HV Technicians / Electricians
- ✓ Wind Technicians
- ✓ Road Maintenance Workers
- ✓ Vegetation Management Service Providers
- ✓ Snow & Surface Removal
- ✓ Administrative Support
- ✓ Inventory / Materials Management

**A job fair will be held one month prior to start of construction. On-the-job training will be available.**





# DIRECT HOMEOWNER PROXIMITY PAYMENT



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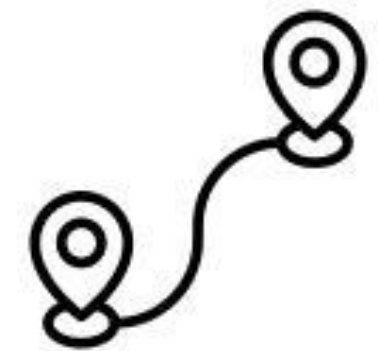
**\$70,000**  
per year

Commitment to provide direct payments to neighbouring homeowners totaling **\$2,5M** over the life of the project



**2026**  
program start

Program to start at the end of the first year of operations, expected 2026



**Local Residents Benefit**

Residents **within a specified distance to the closest turbine**, to be determined through consultation, will receive a proximity payment



**Simple Opt-In Process**

Simple opt-in process to receive annual proximity payment



# COMMUNITY VIBRANCY FUND



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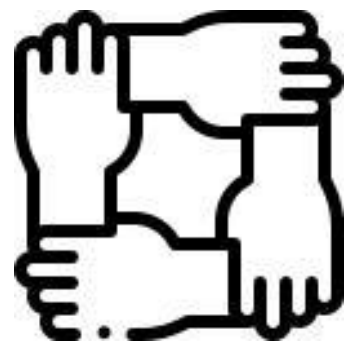
**\$20,000**  
per year

Commitment to provide annual community benefits fund earmarked for community improvement initiatives to be determined through a committee of volunteers



**2026**  
program start

Fund to be deployed in full (\$20,000 annually) at the end of the first year of operations, expected 2026



**Community-Based  
Initiatives**

Education and job training, public recreation, land initiatives, energy sustainability, property tax relief



# BURSARY FUND



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## Bursary Fund of at Least \$50,000, replenished



**10 x Scholarships**

Applicable to education and training  
in the renewables industry



**\$5,000 each**

Expect to fully replenish \$50,000 fund  
once scholarships are issued



**2024**  
program start

Program to start prior to construction



**Keep Families  
Together**

Builds local expertise to help keep  
families together in Nova Scotia



# MUNICIPAL TAX BENEFITS



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	<i>West Hants</i>	<i>Chester</i>	<i>HRM</i>	<i>TOTAL</i>
Annual Municipal Tax (Est.)	<b>\$535k</b>	<b>\$48k</b>	<b>\$146k</b>	<b>\$730k</b>
Project Life Municipal Tax (Est.)	<b>\$18.7mm</b>	<b>\$1.7mm</b>	<b>\$5.1mm</b>	<b>\$31mm</b>

*N.B. Annual tax estimates based on current layout; subject to change.*





# TO RECAP OUR COMMITMENTS



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## Aiming to sign a community benefits agreement with municipalities proposing:

- ✓ **\$70k** paid directly to local homeowners (annual)
- ✓ **\$20K** community vibrancy fund (annual)
- ✓ **\$50k** in bursaries (10 x \$5,000 scholarships)

## Further benefits / commitments:

- ✓ **\$31 million** in municipal taxes (annual, inflating)
- ✓ **Job fairs:** local hiring and training
- ✓ Minimizing impact to **local wildlife**
- ✓ **Prioritizing existing roads** to minimize impact to land
- ✓ **Low density** of approximately 1 turbine per 200 acres (on average)



# SITING CONSIDERATIONS



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## Did you know?

Wind farms are designed to last approximately 35 years, but they are likely to last longer and modern turbines require very little maintenance.

Various factors are considered during project development, including:

- Wind resource
- Electrical infrastructure - transmission and distribution lines
- Environmental constraints – wetlands and water courses, old growth forest, wildlife
- Noise considerations and shadow flicker
- Archaeological and cultural features
- Mi'kmaq environmental knowledge study (MEKS)

- Municipal Bylaws, land use order guidelines and setbacks
- Community input and other interested stakeholders and agencies
- Transportation infrastructure - highways, roads, railways



# DECOMMISSIONING OR REPOWERING



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## Why and When are Wind Farms Decommissioned?

At the end of their useful life, wind projects may be decommissioned for the following reasons:

- Components become too expensive to maintain
- The Project has reached the end of its business case
- The power purchase agreement has terminated

Generally, the decommissioning phase will follow the same steps as the construction phase:

- Dismantling and removal of the turbines
- Removal of the turbine foundations down to 1m below grade
- Removal, recycling (where possible), and disposal of power collection system, conductor, and poles
- Removal of all other equipment
- Reclamation of the land

## What guarantee is there that the Wind Farm won't be abandoned?

We will post a form of security to ensure funds are available for decommissioning at the Project's end of life.



## Why and When are Wind Farms Repowered?

Global trends favour repowering due to renewable wind resources. Repowering leverages existing investments, relationships, and data, making it less risky than initial projects. Technological advances enable efficient turbine replacements, often doubling power output with fewer turbines.





# ENVIRONMENTAL ASSESSMENT



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The project has submitted an application into the province's rigorous Environmental Assessment (EA) process, which includes an analysis of the potential environmental impacts of the project.

## As part of the EA, the following studies have been completed :

- Wildlife: Bats, Birds, Herpetofauna
- Watercourses Delineation, Fish, and Fish Habitat Assessments
- Wetland Delineation and Functional Assessments
- Terrestrial Habitat, Old Growth, Vegetation, and Lichen Surveys
- Avian Radar Studies
- Electromagnetic and Telecommunication Assessments
- Sound and Shadow Flicker Assessments
- Archaeological Assessment
- Mik'maq Ecological Knowledge Studies

## Other ongoing studies include:

- Targeted Terrestrial Fauna Studies (Mainland Moose)
- Second year of Bird, Bat, and Radar Studies
- Geotechnical Investigations





# COMMUNITY CONTRIBUTIONS



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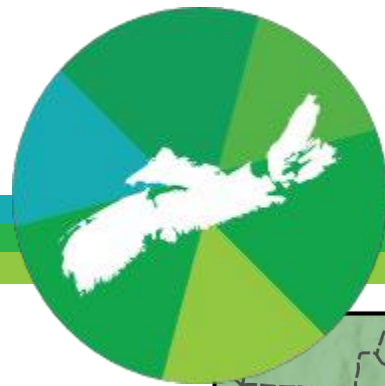
Membertou, EverWind and RES seek to be good corporate citizens in the community and typically support various fundraising events and special initiatives that benefit the local community.

## Examples of activities or organisations we aim to support:

- Economic development
- Local charities
- Local sports teams
- Museums and libraries
- Agricultural associations
- ...and many more!

Do you have an idea of ways we can support your community? Let us know!

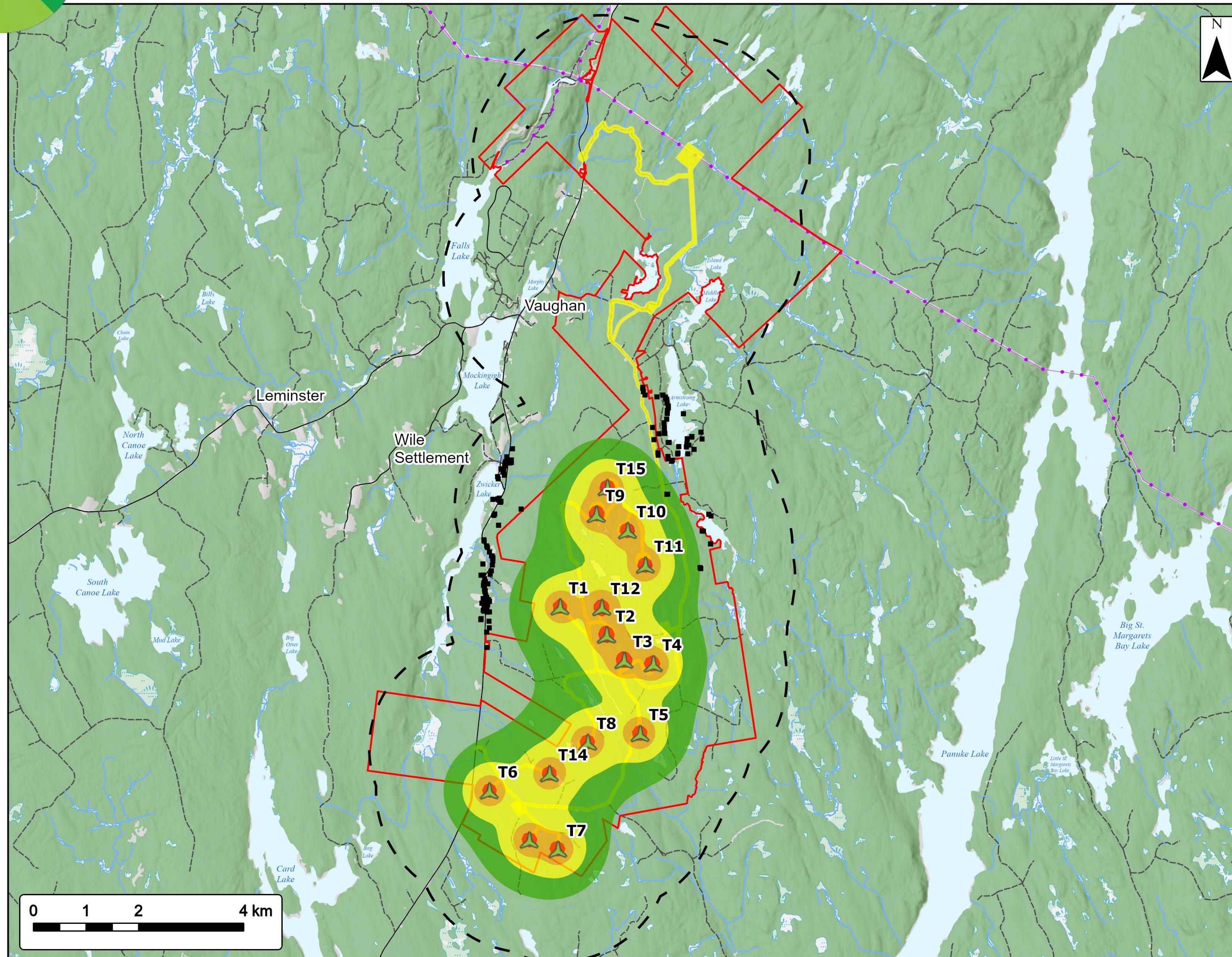




# SOUND MODELLING



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## Bear Lake Wind Power Project Sound Modelling



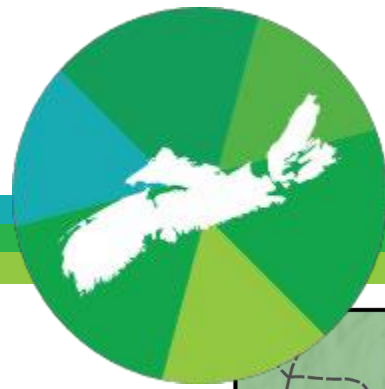
- Study Area
- Assessment Area
- 2 km Assessment Area Buffer
- Proposed Turbine Location
- Non Participating Buildings within 2km of Assessment Area
- Predicted Sound Level (dBA)**
- 35-39
- 40-44
- 45-49
- 50+
- Utilities (line)**
- Existing Pipeline
- Existing Transmission Lines
- Transportation**
- Road
- Unpaved Road
- Water Features**
- Mapped Stream
- Mapped Indefinite Stream
- Mapped Lakes and Rivers
- Mapped Wet Area



Coordinate System: IAD83 UTM Zone 20U  
Sources: Esri Basemaps, GeoNOVA, SHSIS, TRC, 1:50,000, ACCDC, IBA Canada

Date:	Oct 2023	Project #:	23-9128
Scale:	1:70,000	Drawing #:	<b>10.3</b>
Drawn By:	K. Wallace		
Checked By:	M. Savelle		

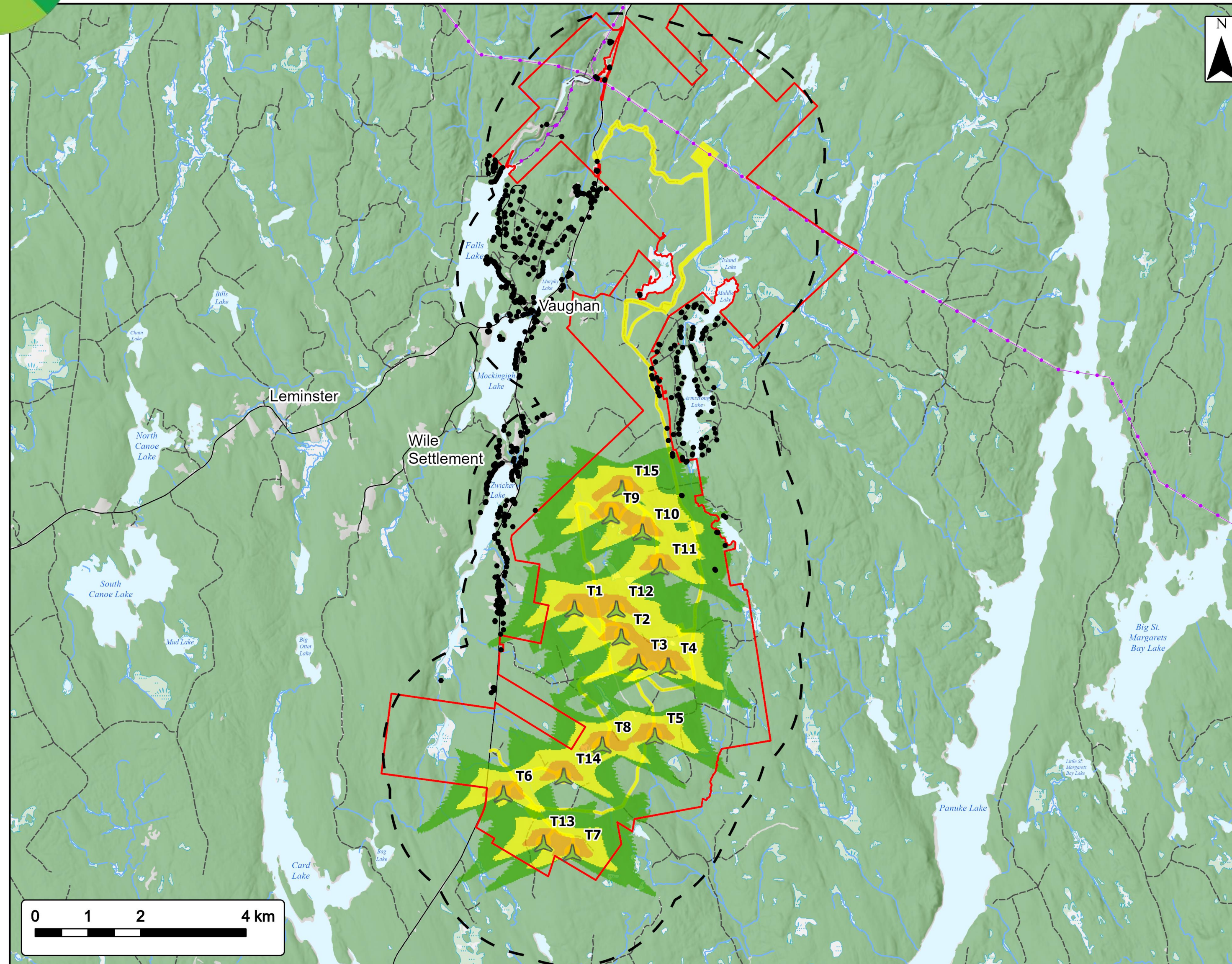




# SHADOW FLICKER



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## Bear Lake Wind Power Project Shadow Flicker - Assessment Scenario B



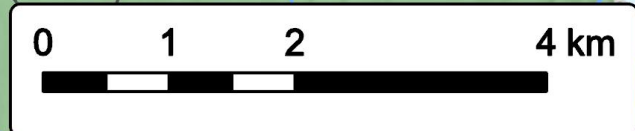
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- Study Area
- Assessment Area
- 2 km Assessment Area Buffer
- Proposed Turbine Location
- Non-Participating Receptors within 2km of Assessment Area
- Predicted Shadow Hours/Year (Assessment Scenario B)**
- 10-30
- 30-100
- 100+
- Utilities (line)**
- Existing Pipeline
- Existing Transmission Lines
- Transportation**
- Road
- Unpaved Road
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# GREEN HYDROGEN



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## TURNING WIND POWER INTO ZERO CARBON FUEL



**Makes Renewable Power Cheaper:**  
Without hydrogen, Nova Scotia would be forced to import green fuels over time



**Provides Domestic Source:**  
Local supply & green fuels needed to avoid Carbon Tax

**WHAT IS GREEN HYDROGEN?**



**Brings Nova Scotians Home:**  
Skilled labour can stay home with their families



**Strong Economy Supports Investment In Healthcare**

**HYDROGEN SUPPORTS A GREEN GRID**



**Creates Green Economy for our Kids**



**Green hydrogen is needed to meet provincial green requirements!**

