

RIVERBEND WIND PROJECT

THANK YOU FOR COMING

to the Riverbend Wind Project Information Session.

BEFORE YOU LEAVE

Please complete a comment card, or, send your comments by mail or email.

HAVE QUESTIONS?

Email Us:

RiverbendWind@algonquinpower.com

Mail Us:

354 Davis Road, Oakville, Ontario L6J 2X1

Call Us: 1 (833) 631-1059





COMPANY HISTORY

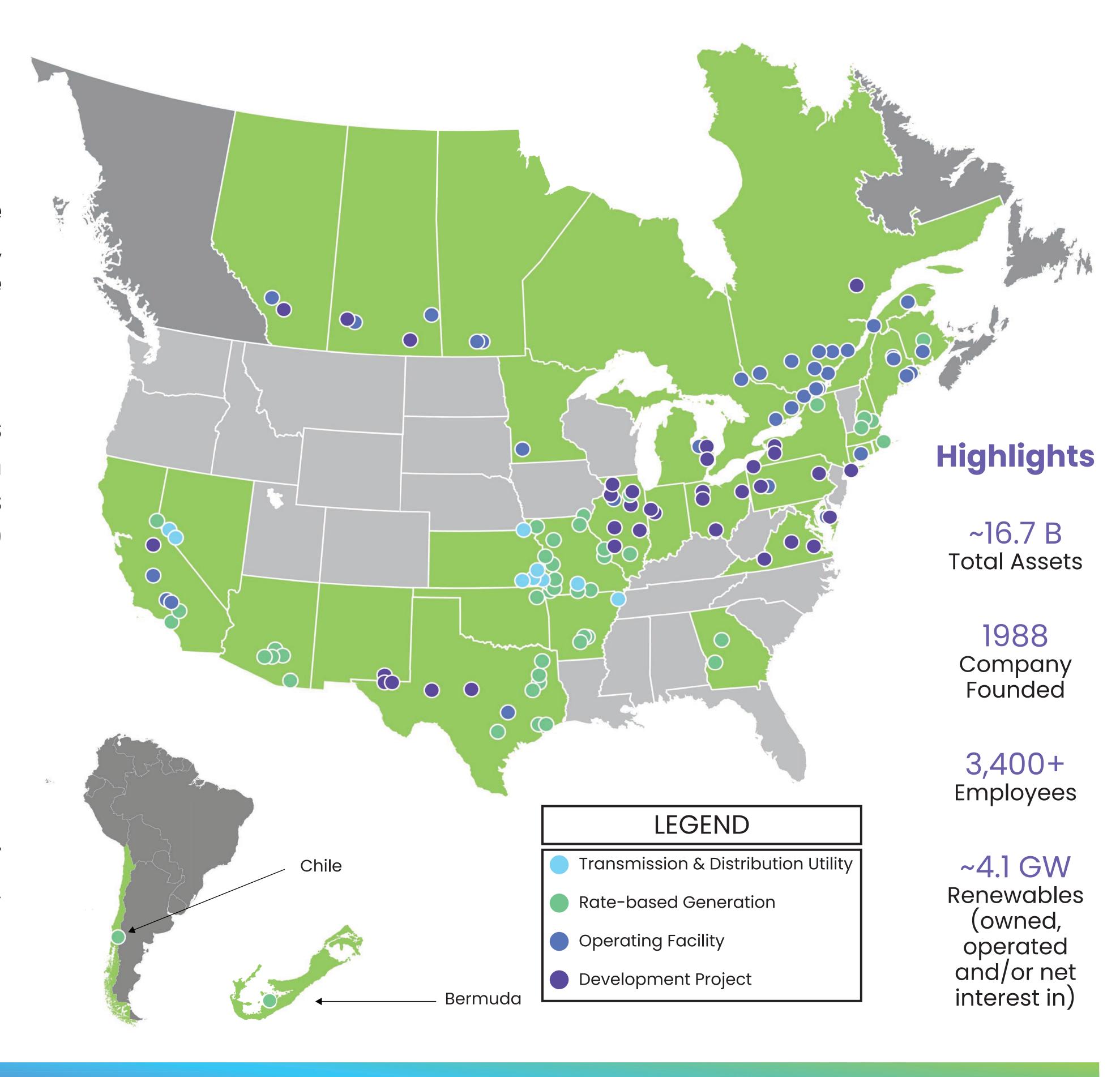
Algonquin Power & Utilities Corp. (Algonquin) was established in 1988 as a developer of small hydro projects in Ontario.

Algonquin was publicly listed as a common share on the Toronto Stock Exchange in 1997 and in 2016, was publicly listed as a common share on the New York Stock Exchange.

Since then, Algonquin has expanded into the utility business through Liberty Utilities, and has become a market leader in renewable generation through Liberty Power. Algonquin has operations spanning 16 jurisdictions with approximately 3400 employees.



Through our operating business (Liberty), we provide regulated water, electricity, and natural gas utility services to over 1 million customer connections, primarily in North America. And, our growing portfolio of clean, renewable wind, solar, hydro and thermal power generation facilities represents over 4.1 GW of renewables in operation and under construction.





RENEWABLE ENERGY PROJECTS

Under Development

Minonk Solar Project

Woodford County, Illinois (200 MW AC + 50 MW Battery Energy Storage System)

Mural Energy Facility

Vermilion County, Illinois (418 MW)

Under Construction

Deerfield Wind Energy 2 Project

Huron Township, Michigan (110 MW)

Shady Oaks 2 Wind Project Lee County, Illinois (118 MW)

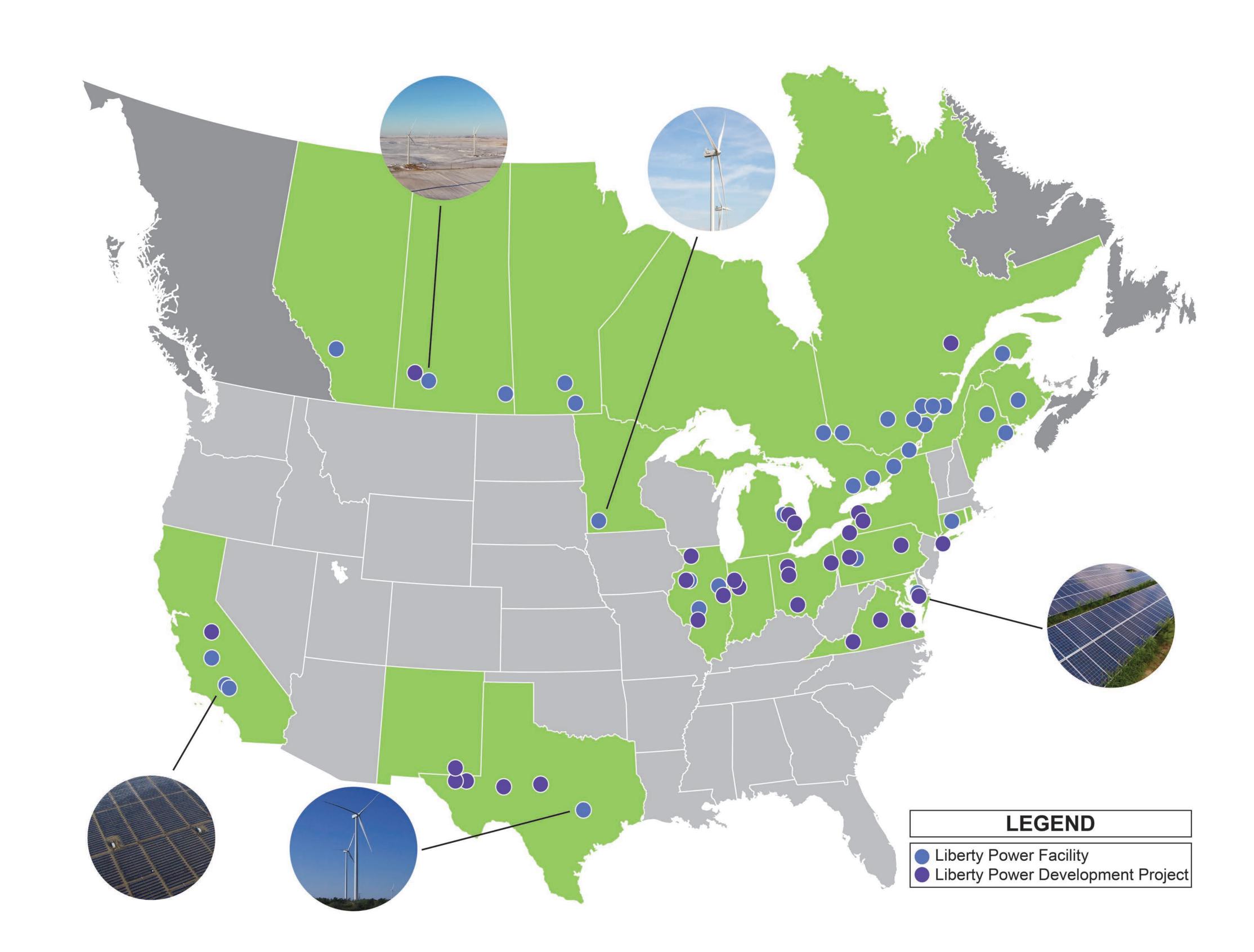
Recent Operating

Maverick Creek Wind Project

Concho County, Texas (492 MW)

Sugar Creek Wind Project

Logan County, Illinois (202 MW)



PROJECT AREA

Project Location:

Townships of Fremont & Speaker, Sanilac County, Michigan

Project Size:

Approximately 300 MW wind project

Number of Turbines:

Permitting 54 Turbines

Turbine Capacity:

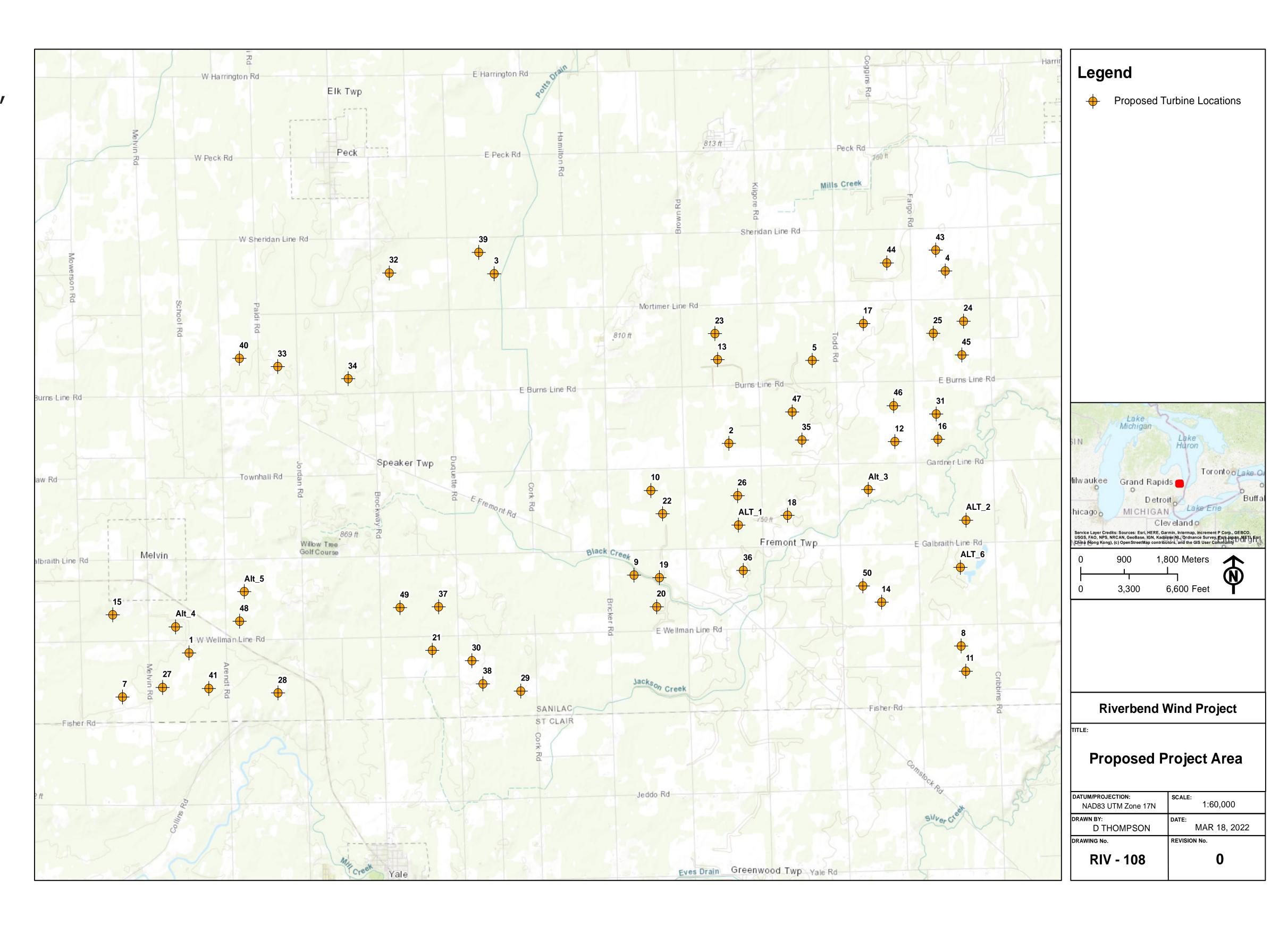
Approximately 6 MW Turbines

Turbine Tip Height:

656 ft.

Regulatory Requirements:

This is a draft layout being finalized to comply with local, state, and federal permit requirements.





PROPOSED PROJECT TIMELINE



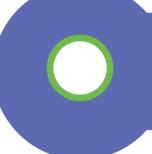
2020 - 2022
Consultation
Land Acquisitions



2021 - 2023
Environmental & Engineering
Surveys & Studies
Fremont & Speaker Townships
Special Land Use Permit Application



2023 - 2024
Target
Commericial
Operation Date

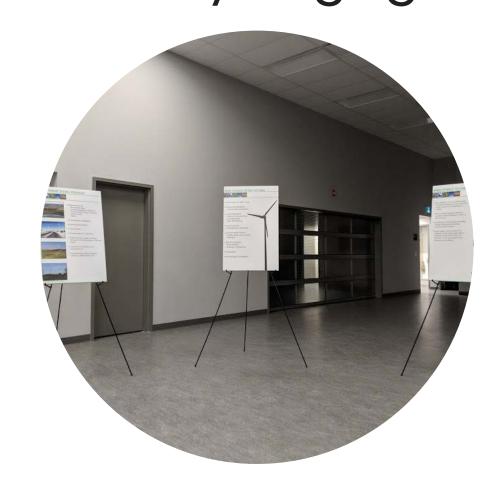


2020
Project
Origination



2020 - 2023

Generator Interconnection
Agreement
MET Tower Installations
Community Engagement



2023

Notice to Proceed to Construction



PERMITTING AND SITING PROCESS







During the permitting and siting

process, various local, state and

federal agencies are consulted

& engaged. These may include:































CURRENT PROJECT ACTIVITIES

Wetlands and Waterways Delineation

Fieldwork started in December 2021.

Monthly Avian Surveys

Surveys started in March 2021, Year 1 completed. Year-2 monthly avian work to start April 2022-March 2023.

Raptor Nest Surveys

Surveys started in March 2021, Year 1 completed.

Bat Acoustic Migration Surveys

Surveys starting April 2022.

Bat Acoustic Presence & Absence Surveys

Surveys completed in September 2021.

Cultural Resources

Fieldwork planned for Spring 2022.

Fremont and Speaker Townships Special Land Use Permit

Application development underway, planning to submit April 2022.

FAA

Determination of No Hazard to Air Navigation Application Submitted Q4 2021.

Sanilac County AZBA

Process commenced Q1 2022.

Note: Project plans to have all discretionary permits by early Q4 2022.



WIND POWER DEFINED

Anemometer—A device to measure the wind speed.

Gearbox—A compact, enclosed unit of gears which transfers force between machines or mechanisms, often with changes of torque and speed.

Hub—That component of a wind turbine to which the blades are affixed.

Hub Height—The distance from the foundation to which the tower is attached to the center of the hub.

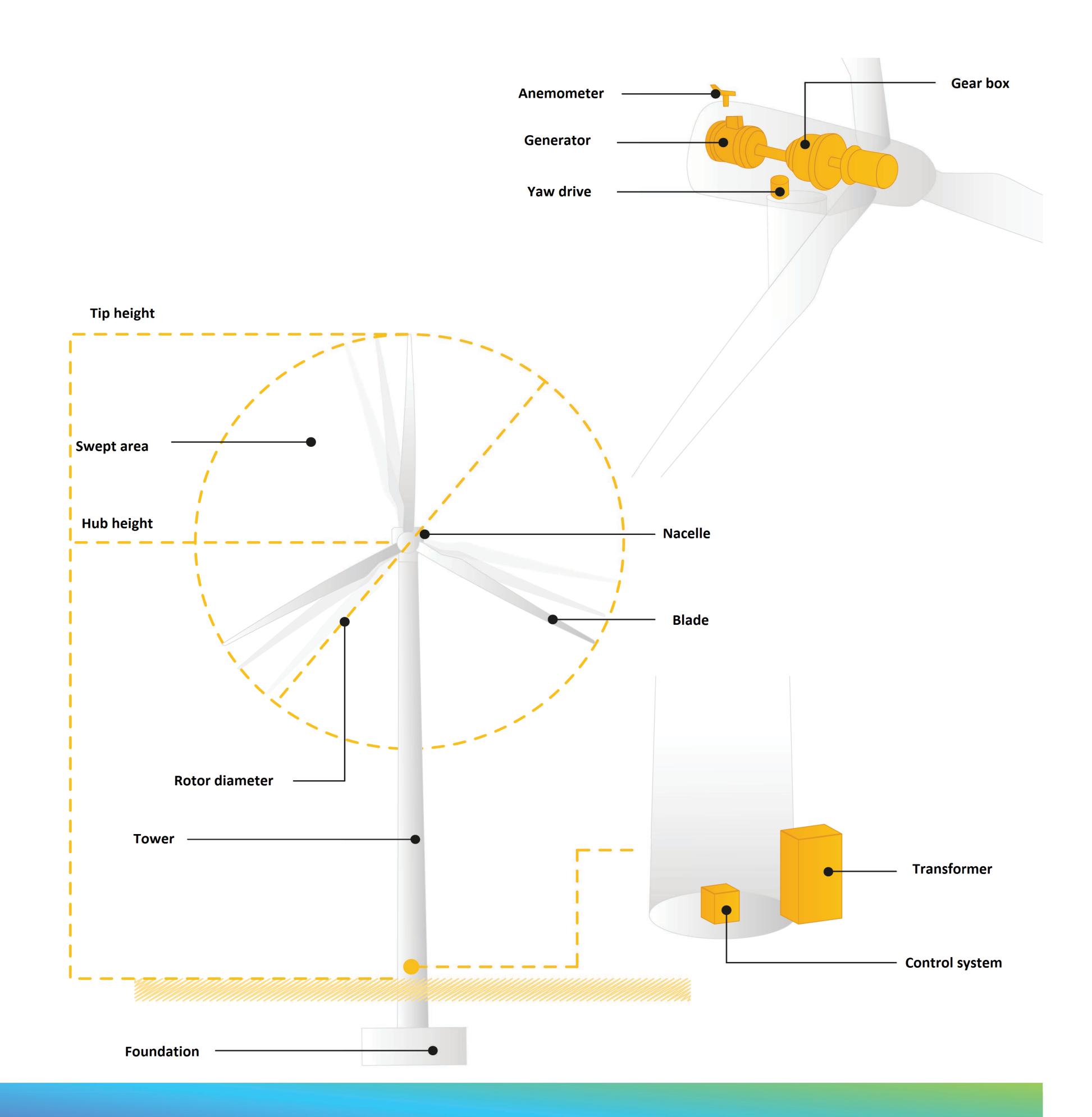
Inverter—A device that converts direct current (DC) to alternating current (AC).

Nacelle—The body of a propeller-type wind turbine, containing the gearbox, generator, blade hub, and other parts.

Rotor—The rotating part of a wind turbine, including either the blades and blade assembly or the rotating portion of a generator.

Rotor diameter—The diameter of the circle swept by the rotor.

Swept area—The area swept by the turbine rotor





DECOMMISSIONING PLAN

A Decommissioning Plan (for the end of useful life of the asset) shall be submitted to the Townships as part of the Special Land Use Permit application.

Turbines

- Turbines would be dismantled and taken away.
- Where possible, reusable material would be sold or recycled.

Turbine Foundations

• Turbine Foundations would be removed to a depth that normal agricultural practices could occur afterwards.

Land

 Impacted agricultural land will be restored to a state suitable for the intended future use.

Electrical Infrastructure

- Underground lines would be removed so that normal agricultural practices would be able to occur afterwards.
- Substation infrastructure would be removed.

Access Roads

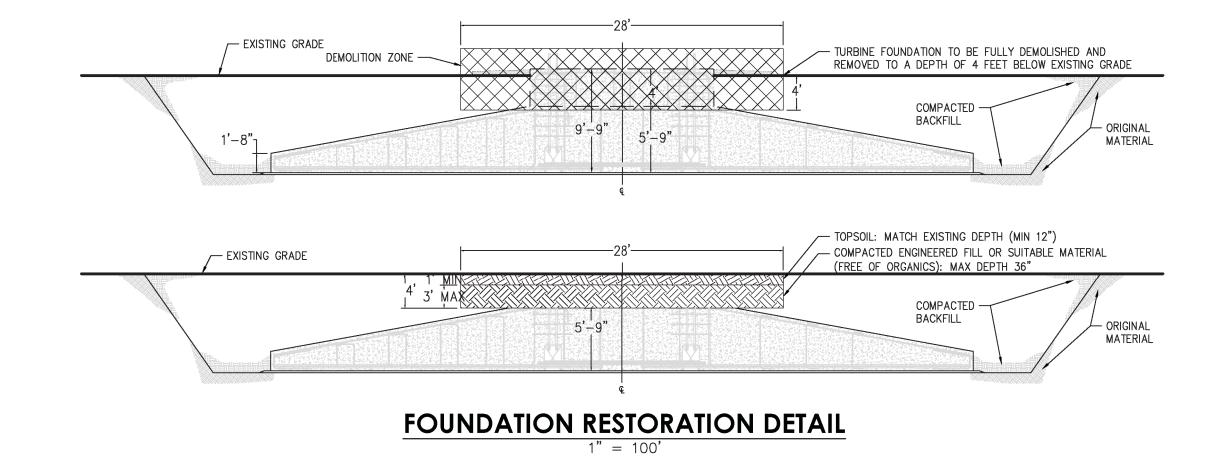
 Access roads would be removed and land returned to a similar condition as before the project; in consultation with the landowner.







Project Decommissioning in France Source: Wind Europe





NOISE EMISSIONS & SHADOW FLICKER

NOISE EMISSIONS – FREMONT TOWNSHIP

- Shall not exceed forty-five (45) decibels on the DBA scale as measured at the nearest property line of a non-participating property or road.
- A baseline noise emission study shall be completed prior to construction.

SHADOW FLICKER - FREMONT TOWNSHIP

- Analysis on potential shadow flicker at occupied structures and public roads and rights of way.
- Shadow flicker on a habitable structure on a Non-Participating Property shall not exceed thirty (30) hours per year.





ROCK CONCERT (110-130 dBA AT 3.28 ft.)

11A.06.05 NOISE - SPEAKER TOWNSHIP

 Audible noise or the sound pressure level shall not exceed fifty (50) dBA, or the ambient sound pressure level plus five (5) dBA, which ever is greater for more than ten percent (10%) of any sixty (60) minute interval, measured at any residence, school, hospital, church, or public library.

SHADOW FLICKER - SPEAKER TOWNSHIP

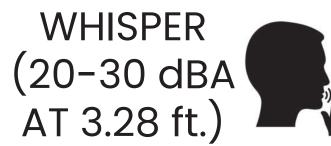
• Shadow flicker shall not exceed thirty (30) hours per year. Applicant/developer shall mitigate the effects of any period of shadow flicker that exceeds thirty (30) minutes in duration by shutting down the offending turbine or other appropriate measures as the Township may approve.



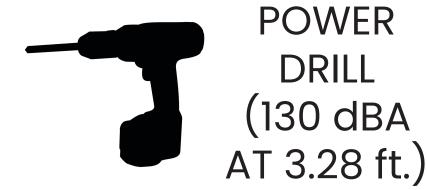
COMPUTER GAME (69 dBA AT 3.28 ft.)



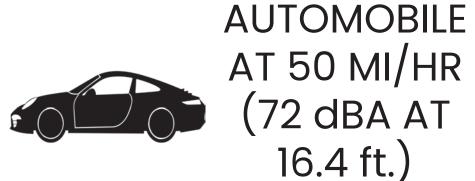
RESIDENTIAL AREA $(35-45 \, dBA)$



150 140 130 120 110 100 90 40 10 80 30 20 70 60









MAXIMUM ALLOWABLE WIND TURBINE NOISE MEASURED AT A NON-PARTICIPATING PROPERTY LINE (45 dBA)



BLOWING **LEAVES** (10-15 dBA)

OVERVIEW OF CONSTRUCTION ACTIVITIES



LAND PREPARATION



CONSTRUCTION OF ACCESS ROADS, LAYDOWN AND WORKING AREAS



CONSTRUCTION
OF WIND TURBINE
FOUNDATIONS



DELIVERY OF EQUIPMENT



ASSEMBLY AND INSTALLATION OF WIND TURBINES



CONSTRUCTION OF ELECTRICAL COLLECTOR SYSTEM, SUBSTATION & INTERCONNECTION POINT



CONSTRUCTION OF
COMMUNICATIONS AND
METEOROLOGICAL
TOWERS



SITE CLEAN-UP
AND
RECLAMATION

LANDOWNER PAYMENTS

WHAT DO WE COMPENSATE FOR:

DEVELOPMENT TERM

5 year term.

CONSTRUCTION & OPERATIONS TERM

Term of agreement will be 30 years with an option to renew for an additional two 10 year extensions.

LEASE COMPENSATION CONSIDERATIONS

Development Term MET Tower

Construction Term Transmission Lines

Operations Term Collector Lines

Setback waiver (No facilities on land) Access Roads

ESCALATOR

Payments will have an escalator that will increase compensation by a defined % over the term of the lease.

CROP LOSS

Affected landowners will be made whole for 100% crop loss if impacted.

IMPACTS TO DRAINAGE TILE

All damaged tile will be repaired.















TYPES OF AGREEMENTS

WHAT TYPES OF AGREEMENTS DO WE OFFER:

LEASE:



Turbine Site



Access Roads



Collector Lines



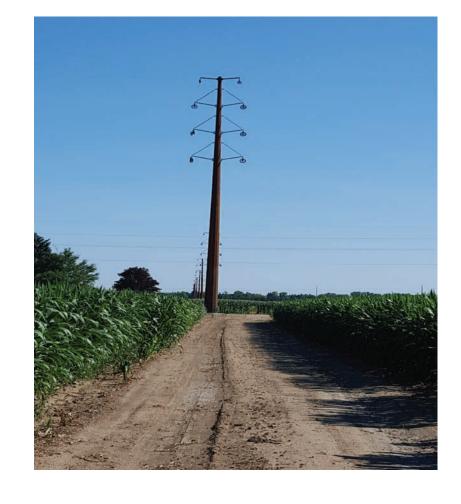
Laydown Areas

PURCHASE AGREEMENT:



Substation/Switch Yard

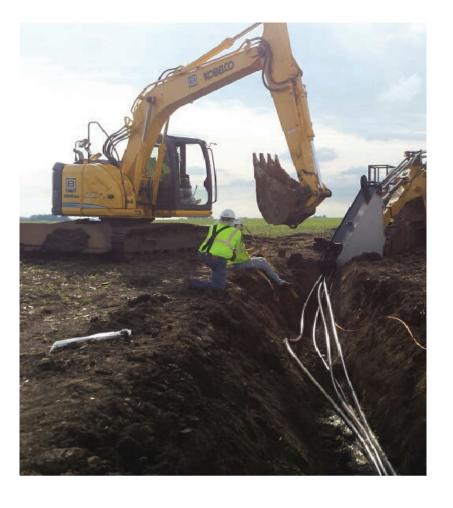
EASEMENT: (Specific Areas)



Transmission Line

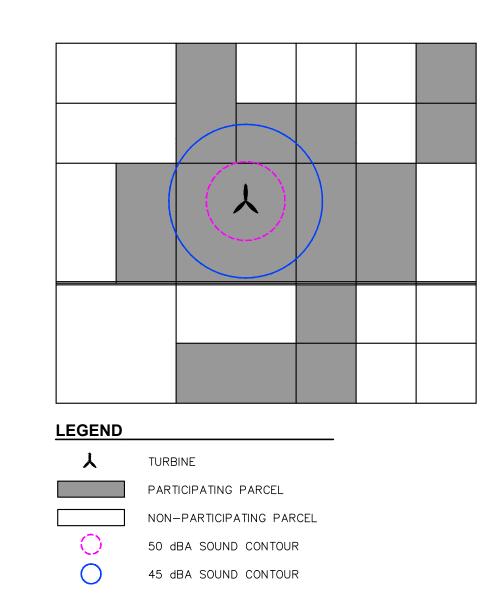


Access Roads



Collector Lines

SETBACK WAIVERS



GOOD NEIGHBOUR AGREEMENTS



COMMUNITY & ECONOMIC BENEFITS

TAX REVENUE

Increased contributions to Fremont and Speaker Townships & Sanilac County's tax revenue & School Districts.

EMPLOYMENT

Employment opportunities during construction and the project's operations phase.

CONTRACT OPPORTUNITIES

Economic offshoots for local businesses.

LAND USE

Compatible use - both agricultural operations and operating wind project co-existing on the same parcel.

CAPITAL INFRASTRUCTURE

Potential local infrastructure improvements for project & construction, such as upgrades to public roads used for project travel.

CLEAN ELECTRICITY GENERATION

Emissions-free electricity will be generated. Greenhouse gas emissions will be offset annually.













LOCAL COMMUNITY SUPPORT OPPORTUNITIES

Liberty is always looking for ways to partner with the community through donations, community events, and sponsorships.

We are commitmented to establishing a Community Benefit Agreement with both Townships.

Riverbend Donations To Date:

Melvin Food Drive
Julie's Kids
Croswell Lexington Athletic
Booster
Speaker Township Community
Fundraiser





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HAVE QUESTIONS?

Please ask the project team or fill out a comment card.

Email Us: RiverbendWind@algonquinpower.com

Mail Us: 354 Davis Road, Oakville, Ontario L6J 2X1

Call Us: 1 (833) 631-1059

We appreciate you taking the time to come & learn about our proposed project!

NEXT STEPS

Evaluate feedback from the community.

Complete studies and surveys.

Submit Special Land Use Permit Application.



