

### **OPEN HOUSE #2**

Wednesday, December 4, 2021

#### Overview

- Higgins Wind Farm LP is a partnership made up of Elemental Energy, Stevens Wind, and 3G Energy
- Higgins Wind Farm LP is developing the Higgins Mountain Wind Farm
- Government of Nova Scotia planning renewable energy procurement process planned for 2022
- Partners held introductory open house on October 5<sup>th</sup>, 2021 to share preliminary project plans and seek community feedback
- Based on feedback received from open house and project's CLC we made <u>significant</u> changes to the project design which we feel will fit better in the community
- Today we are here to share updated plans and have team members and our environmental consultant (Strum Consulting) present to answer questions

# Project Representatives



Dan Eaton
Director of Development
Elemental Energy
Development Partner



Paul Pynn
President
Stevens Wind
Development Partner



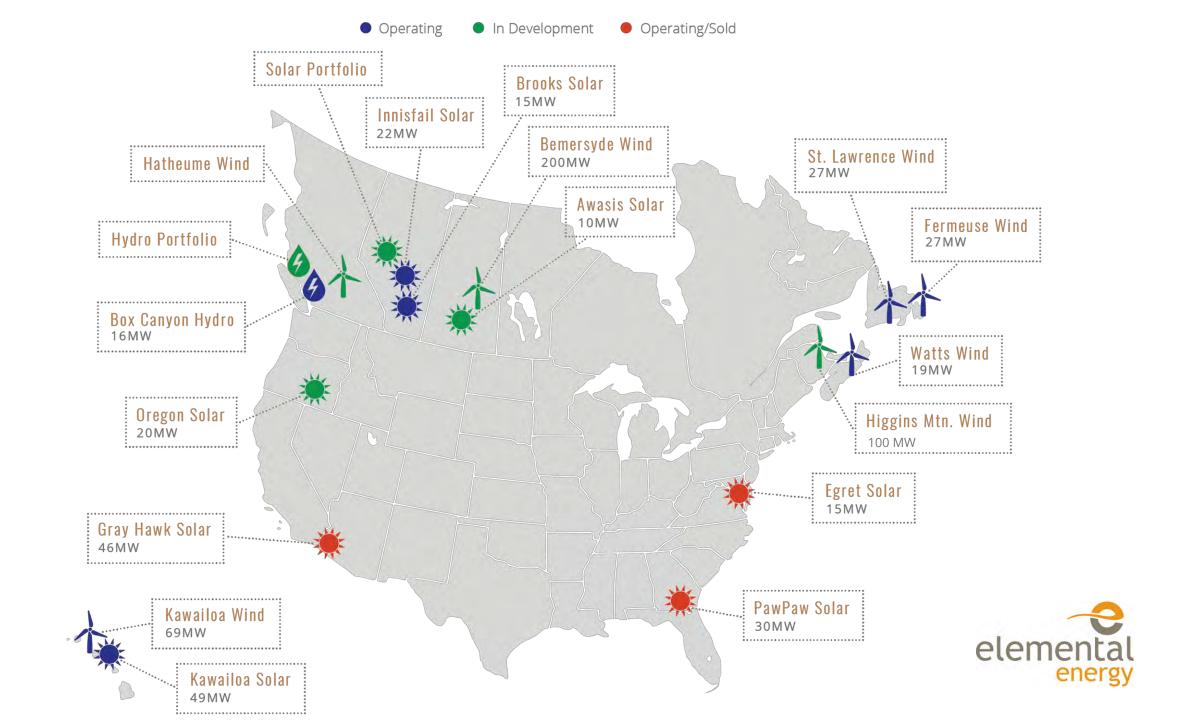
Maryam Baksh
Project Manager
Elemental Energy
Development Partner



Shawn Duncan
President
Strum Consulting
Environmental Consultant



Angus Doane
Environmental Professional
Strum Consulting
Environmental Consultant



# Introductory Open House – Oct 2021

- 83 registered attendees (100+ estimated)
- 18 feedback forms
- ~40 follow up emails/letters

What We Heard

**Visual impacts:** concerned about wind farm size and visibility from key viewpoints. Request for additional visual simulations.

**Meeting time:** several residents emphasized the weekday meeting timing posed challenging for seasonal residents.

**Health and noise impacts:** many residents had questions about potential health and noise impacts from wind farms.

**Environmental impacts:** concerned about impacts to flora and fauna from a standalone and cumulative perspective.

**Telecommunication impacts:** several residents had concerns about wind turbine impacts on interfering with internet service.

**Recreation/tourism impacts:** concerned about impacts on local recreation and tourism.

**Support for wind energy:** many residents voiced support for wind energy, including at Higgins, provided other concerns mitigated.

# Updates Since Last Open House

- Reduced the layout from 150 MW (27 turbines) to 100 MW (18 turbines)
- Removed or relocated turbines with highest visual sensitivity
- These design compromises make the site less economically competitive but a better fit within the community
- Prepared additional information requested from the last Open House, including additional photos
- Today we are here to share updated plans with Project Representatives and Strum Consulting to answer questions

#### Lower Greenville 246 Wentworth Station Westchester Station Ski Wentworth Wentworth Wentworth Falls 🍅 Horso Pasture Falls chester 104 Folly Lake 104 East F Moun Mountain Londonderry Managers Park 2 km 3 km 4 km 5 km

## 150 MW Layout

Layout presented at the last Open House

#### Legend

- Existing turbines
- Previous turbines, 150 MW
- Zone of visual impact

#### Lower 246 Greenville Wentworth Station Westchester Station Ski Wentworth Wentworth Valley Wentworth Falls 🔼 Hors Pasture Falls 1045 Folly Lake 104 East I Mour Mountain Londongerry Managers Park 2 km 3 km 4 km 5 km

## 100 MW Proposed Layout

 Incorporating community feedback, we have developed a proposed 100 MW layout that significantly mitigates visual impacts from sensitive vantage points

#### Legend

- Existing turbines
- Proposed turbines, 100 MW
- Zone of visual impact

#### Lower 246 Greenville Wentworth Westchester Station Station Ski Wentworth Wentworth Valley Wentworth Falls Horo Pasture Falls 104 Isaac Lake Folly Lake 104 Sutherland Lake East Folly Mour Mountain Londonderry Managers Park 2 km 3 km

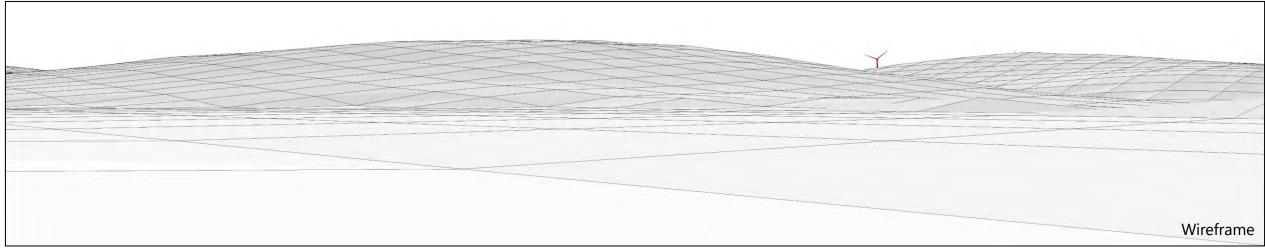
## 100 MW Proposed Layout

- Incorporating community feedback, we have developed a proposed 100 MW layout that significantly mitigates visual impacts from sensitive vantage points
- We prepared a number of visual simulations in locations requested by members of the community for viewing at this Open House

#### Legend

- Existing turbines
- Proposed turbines, 100 MW
- 📩 Zone of visual impact







Location: Sutherland Lake, on

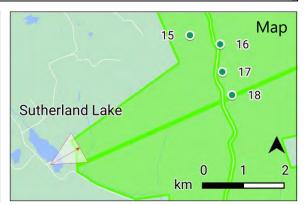
Westchester Rd Layout: 100 MW

Nearest turbine: 4.9 km

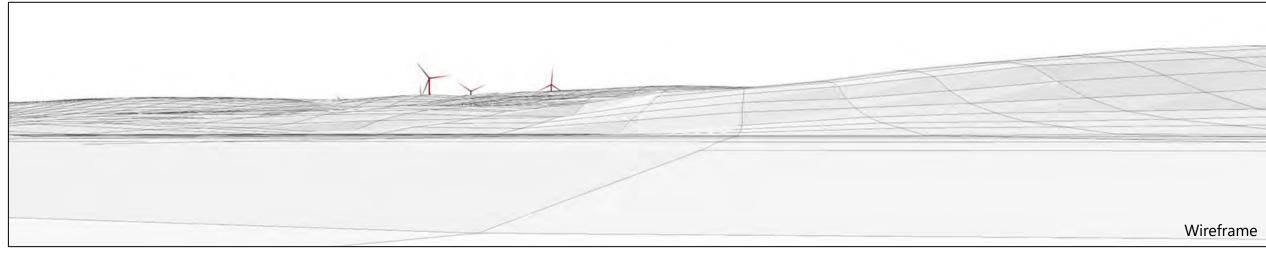
Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: October 4, 2021 Photo credit: Graham Findlay Coordinates: 45.513, -63.675

Bearing: 60°









Location: Isaac Lake, on Webb Rd

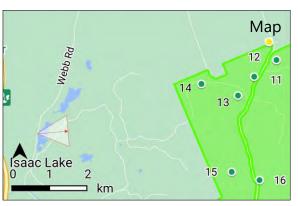
Layout: 100 MW

Nearest turbine: 4.8 km

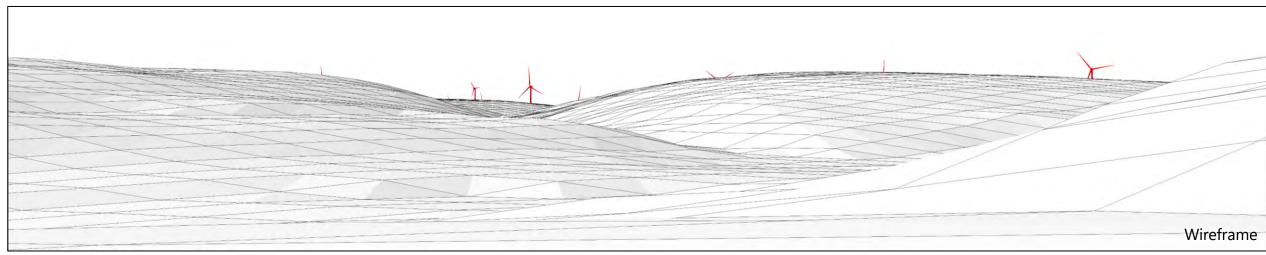
Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: October 4, 2021 Photo credit: Graham Findlay Coordinates: 45.553, -63.699

Bearing: 85°









Location: Webb Rd, Westchester

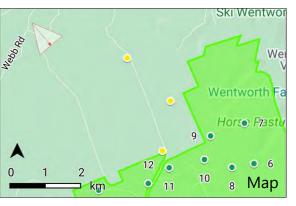
Layout: 100 MW

Nearest turbine: 5.2 km

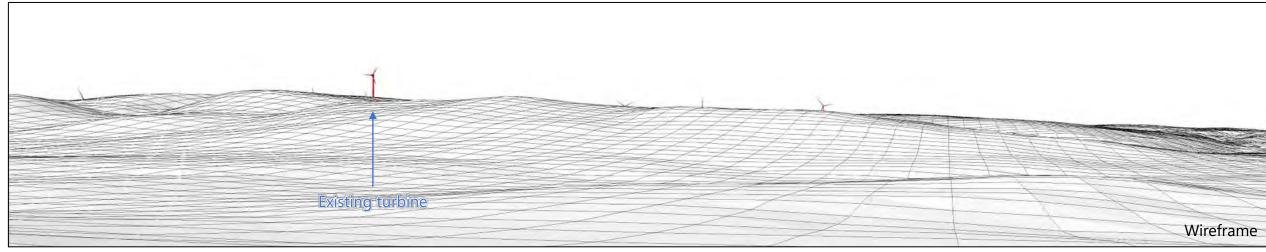
Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: October 4, 2021 Photo credit: Graham Findlay Coordinates: 45.609, -63.667

Bearing: 140°









Location: Wentworth Collingwood Rd, east

of Westchester Station

Layout: 100 MW

Nearest turbine: 6.3 km

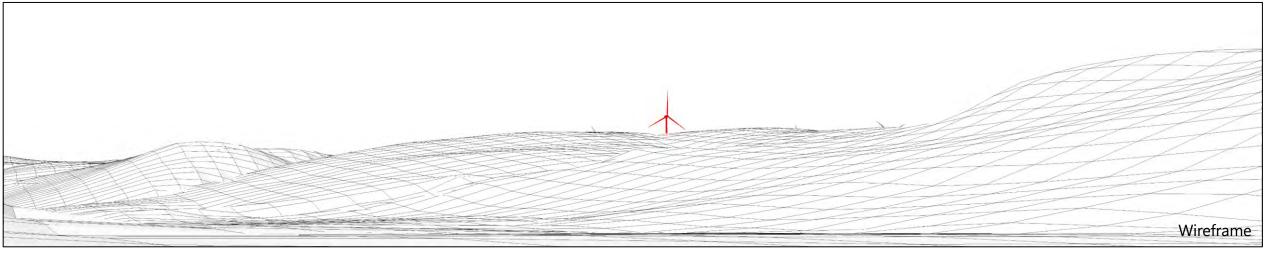
Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: October 4, 2021 Photo credit: Graham Findlay Coordinates: 45.622, -63.653

Bearing: 171°









Location: Ski Wentworth, patio

Layout: 100 MW

Nearest turbine: 3.5 km

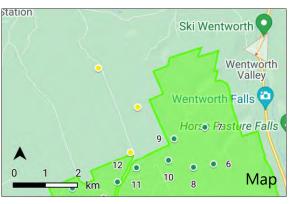
Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: October 4, 2021 Photo credit: Graham Findlay Coordinates: 45.609, -63.562

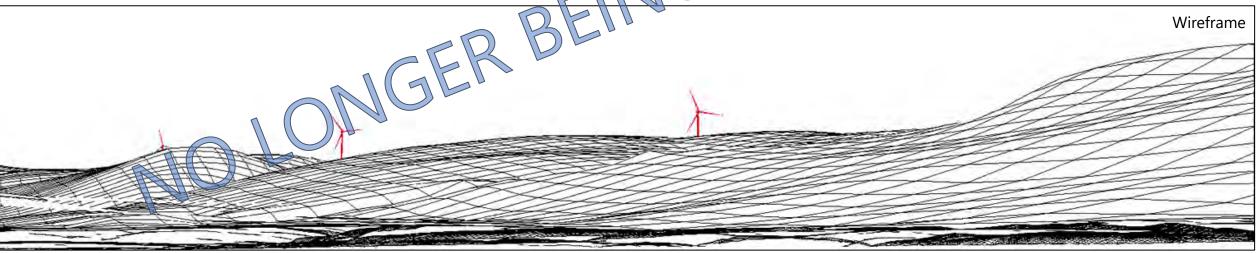
Bearing: 208.5°

Notes: Less visible turbines than 150 MW

layout









Location: Ski Wentworth, patio

Layout: 150 MW

Nearest turbine: 3.4 km

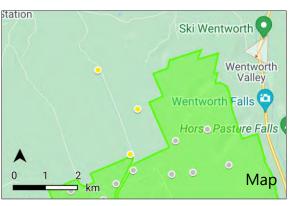
Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: October 4, 2021 Photo credit: Graham Findlay Coordinates: 45.609, -63.562

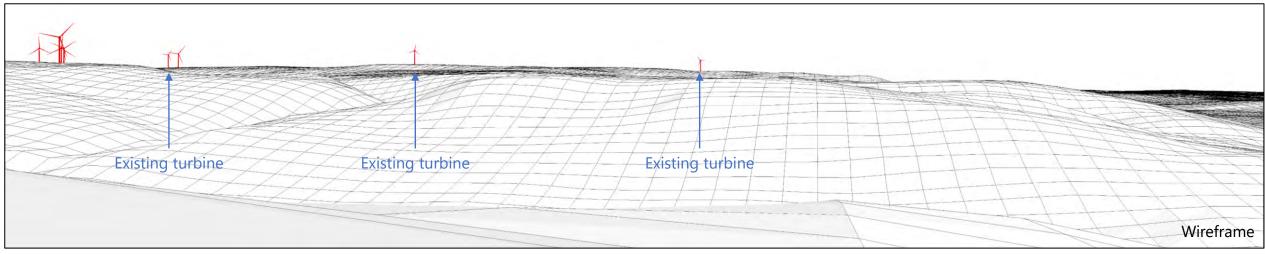
Bearing: 208.5°

Notes: **This layout is no longer being considered.** Noticeable turbine reduction

in 100 MW layout.









Location: Ski Wentworth, near top of slope

Layout: 100 MW

Nearest turbine: 3.9 km

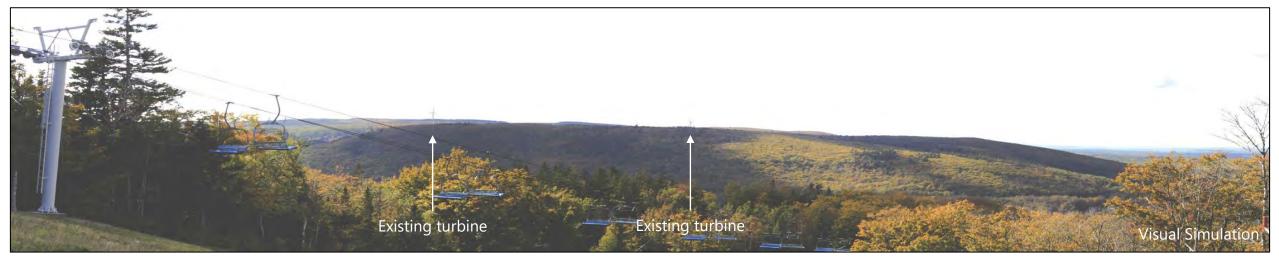
Turbine model: Enercon E-160, 5.5 MW

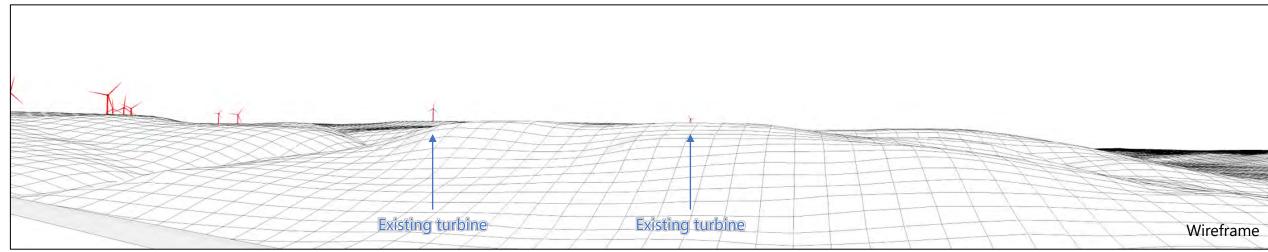
Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: October 4, 2021 Photo credit: Graham Findlay Coordinates: 45.607, -63.550

Bearing: 260°

Notes: Some turbines are blocked by foliage in the visual simulation









Location: Ski Wentworth, near chairlift

Layout: 100 MW

Nearest turbine: 3.9 km

Turbine model: Enercon E-160, 5.5 MW

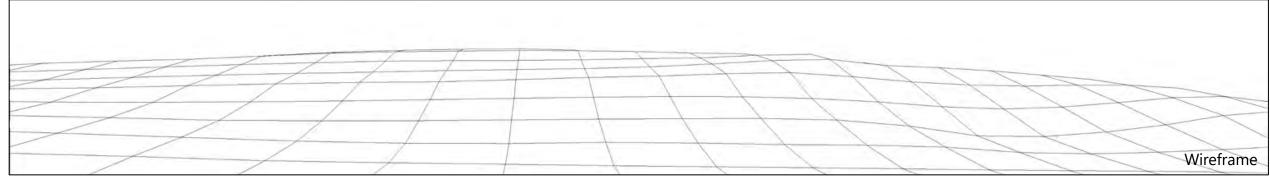
Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: October 4, 2021 Photo credit: Graham Findlay Coordinates: 45.607, -63.553

Bearing: 260°

Notes: Some turbines are blocked by foliage in the visual simulation









ridge, looking northwest

Layout: 100 MW

Nearest turbine: 2.5 km

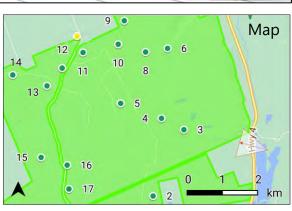
Turbine model: Enercon E-160, 5.5 MW

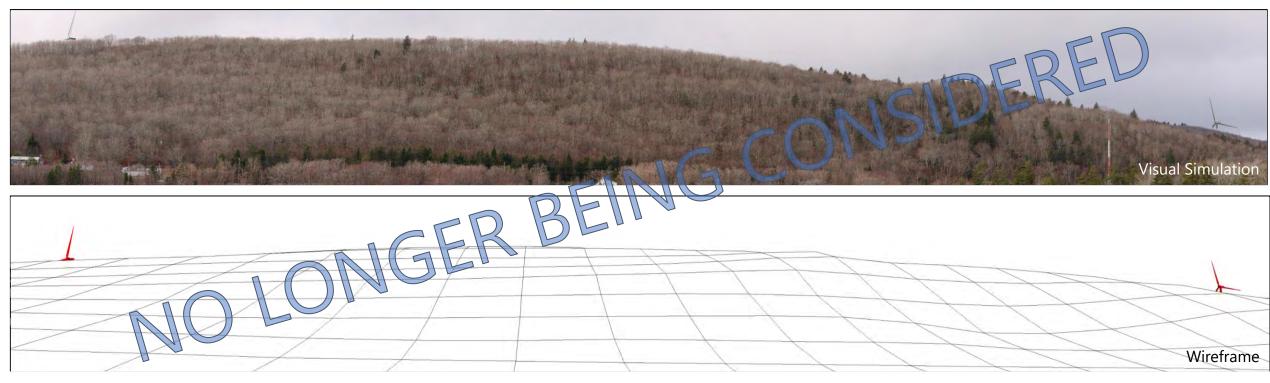
Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: November 27, 2021

Photo credit: Maryam Baksh Coordinates: 45.545, -63.545

Bearing: 285°

Notes: No turbines visible







ridge, looking northwest

Layout: 150 MW

Nearest turbine: 2.4 km

Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: November 27, 2021

Photo credit: Maryam Baksh Coordinates: 45.545, -63.545

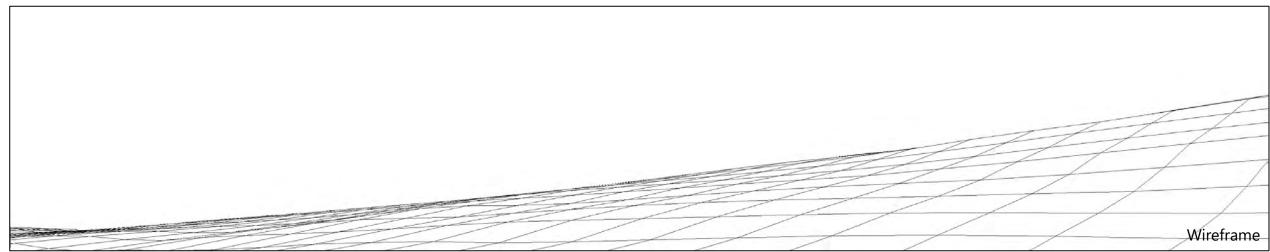
Bearing: 285°

Notes: This layout is no longer being

considered









ridge, looking southwest

Layout: **100 MW** 

Nearest turbine: 2.5 km

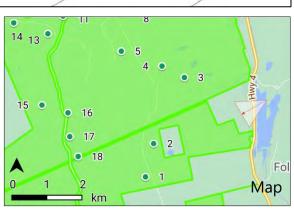
Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: November 27, 2021

Photo credit: Maryam Baksh Coordinates: 45.545, -63.545

Bearing: 240°

Notes: No turbines visible







ridge, looking southwest

Layout: **150 MW** 

Nearest turbine: 2.4 km

Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m
Turbine tip height: 190 m
Turbine rotor diameter: 160 m

Date of photo: November 27, 2021

Photo credit: Maryam Baksh Coordinates: 45.545, -63.545

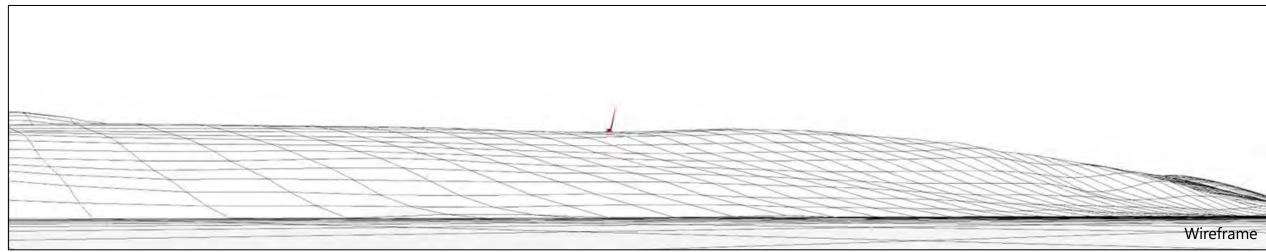
Bearing: 240°

Notes: This layout is no longer being

considered









Location: Folly Lake near saddle, looking

northwest

Layout: 100 MW

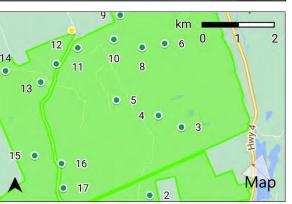
Nearest turbine: 3.0 km

Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: November 27, 2021

Photo credit: Maryam Baksh Coordinates: 45.537, -63.543

Bearing: 315°







Location: Folly Lake near saddle, looking

northwest

Layout: 150 MW

Nearest turbine: 2.5 km

Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: November 27, 2021

Photo credit: Maryam Baksh Coordinates: 45.537, -63.543

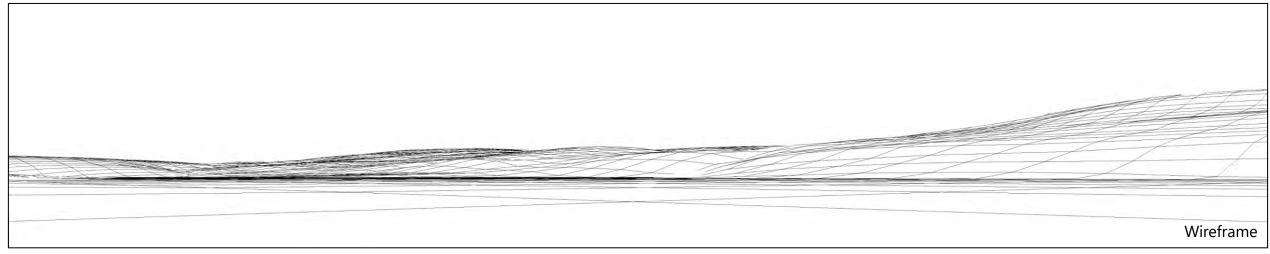
Bearing: 315°

Notes: This layout is no longer being

considered









Location: Folly Lake near saddle, looking

southwest

Layout: 100 MW

Nearest turbine: 3.0 km

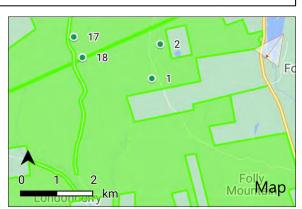
Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m Turbine tip height: 190 m Turbine rotor diameter: 160 m Date of photo: November 27, 2021

Photo credit: Maryam Baksh Coordinates: 45.537, -63.543

Bearing: 216°

Notes: No turbines visible







Location: Folly Lake, off Stevens Rd

Extension, near saddle, looking southwest

Layout: 150 MW

Nearest turbine: 2.5 km

Turbine model: Enercon E-160, 5.5 MW

Turbine hub height: 110 m
Turbine tip height: 190 m
Turbine rotor diameter: 160 m

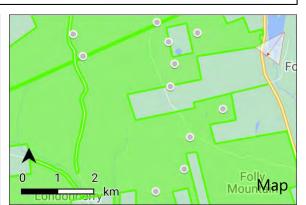
Date of photo: November 27, 2021

Photo credit: Maryam Baksh Coordinates: 45.537, -63.543

Bearing: 216°

Notes: This layout is no longer being

considered



## Project Benefits

GHG Reductions: offset coal-fired generation in Nova Scotia – approximately 200,000 tCO2e/year

Low-cost electricity: low cost fixed price clean electricity for the Province of Nova Scotia.

**Employment:** approximately **100 jobs** during construction, **10 FTE jobs** throughout operations.

Contracting Opportunities: construction and operations will rely on local supply chain and services.

**Tax Revenue:** property taxes of \$760,000/year to the municipality.

Community Benefits Fund: establish \$100,000/year fund.

**Support for Community Initiatives and Infrastructure:** committed to supporting various local organizations and initiatives that bring positive impacts to nearby communities.

**Education:** education and training events.

**Local Investment:** local businesses will benefit from increased spending on goods and services during construction and operations phases.

#### **Environmental Work**

The following environmental surveys have been completed or are underway:

- · Avifauna (birds & bats)
- · Wildlife (e.g. moose)
- Vegetation
- · Wetlands
- · Watercourses & aquatic habitats

- Noise & shadow flicker
- · Visual impacts
- · Archaeological & historic resources
- · Socioeconomic studies
- · Electromagnetic interference studies

# Questions? (10 minutes)