Welcome to our community drop-in meeting

Meet the team, learn more about the project and provide feedback by completing our form

The Project is proposed within the Township of Enniskillen and will seek Municipal Support Confirmation from Enniskillen Council as part of the IESO's LT2 RFP requirements.

Inwood Energy Storage Project

About us

We are the world's largest independent renewable energy company.

We live our mission, celebrate the people making it happen and transform the way the world produces and consumes energy.

40+
years' experience in renewable energy

45GW
operational assets supported

28GW
projects developed and/or constructed

24
countries worldwide

Technologies

Wind | Solar | Storage | T&D | Green hydrogen

We have a vision to create a future where everyone has access to affordable zero carbon energy. We have over **20 years** experience in Canada, with over **30** projects developed and/or constructed, totalling **3.5 gigawatts (GW)**. We have developed or constructed more than 20 energy storage projects representing over **450 megawatts (MW)** of storage capacity.

Within Ontario alone, RES has developed and/or constructed **15** projects totalling over **700MW** of wind, solar, and energy storage capacity. Notably, RES developed the province's first utility-scale Battery Energy Storage System (BESS) in 2014, located in Strathroy, Ontario.

We are also committed to developing long term relationships with the communities around its projects, proactively seeking ways in which it can support and encourage community involvement in social and environmental projects near its developments.

Inwood Energy Storage Project

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About the project

Technology:	Battery Energy Storage System
Capacity:	Up to 240MW
Project footprint:	Up to 20 acres
Location:	5930 Courtright Line
Status:	Early development (Proposal under IESO LT2 RFP)
Timeline:	Anticipated commercial operations 2030

Ontario's Independent Electricity System Operator (IESO), has identified the urgent need to bring **4,000MW** of new supply onto the electricity grid by **2030** as energy demand is expected to grow 30% over the next 20 years.

RES is proposing to develop, build and operate a BESS Project with a capacity of up to **240MW**, west of Inwood in the Township of Enniskillen. The Inwood Energy Storage Project (the Project) would provide the provincial electric system with reliability services needed to support increasing electricity demand.

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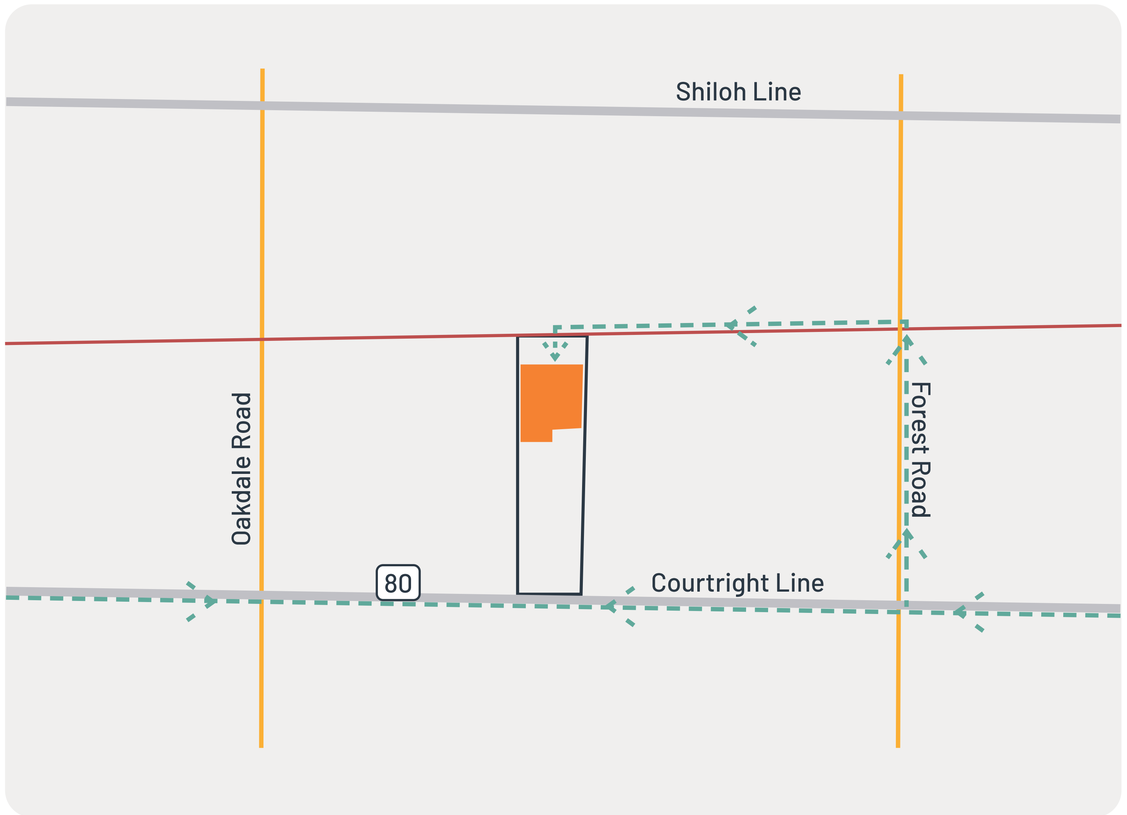
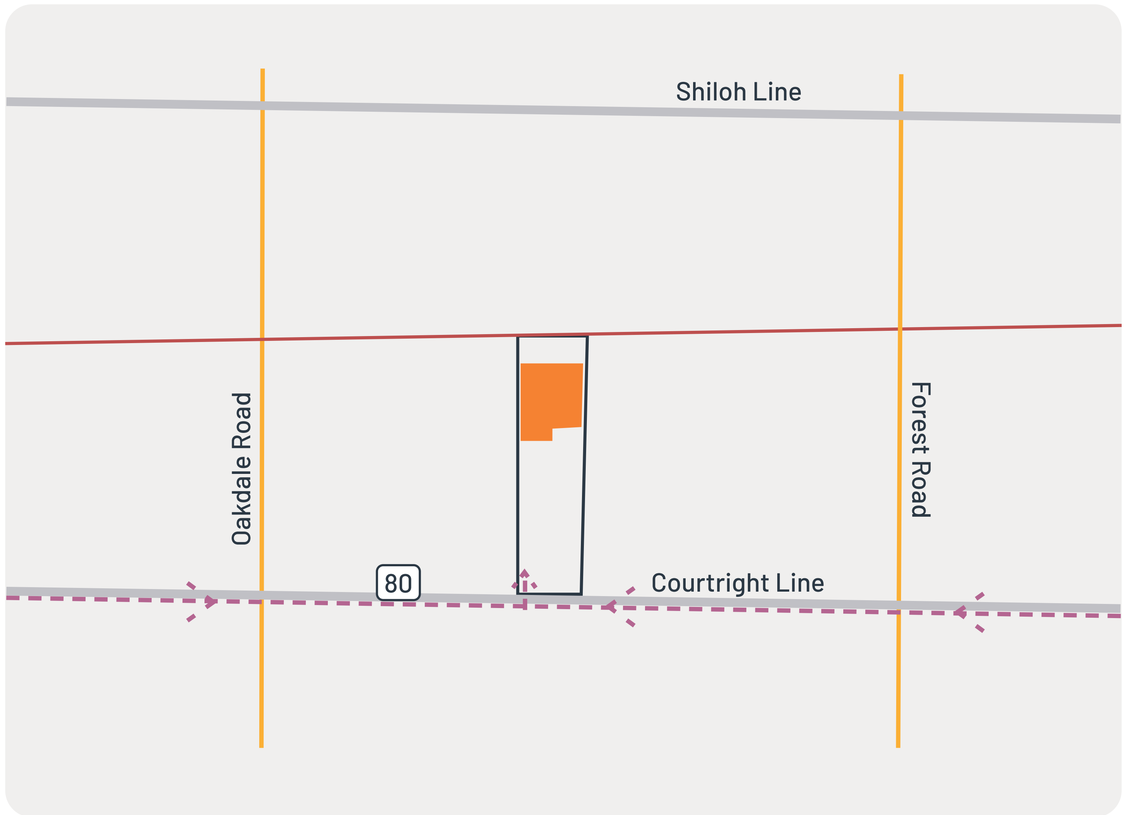
Proposed access routes

Option 1 - access route via Forest Road



Option 2 - access route via Courtright Line



Key:

- Maximum project site
- Property parcel
- 230 KV Transmission lines (Hydro One Corridor)
- Access route 1
- Access route 2

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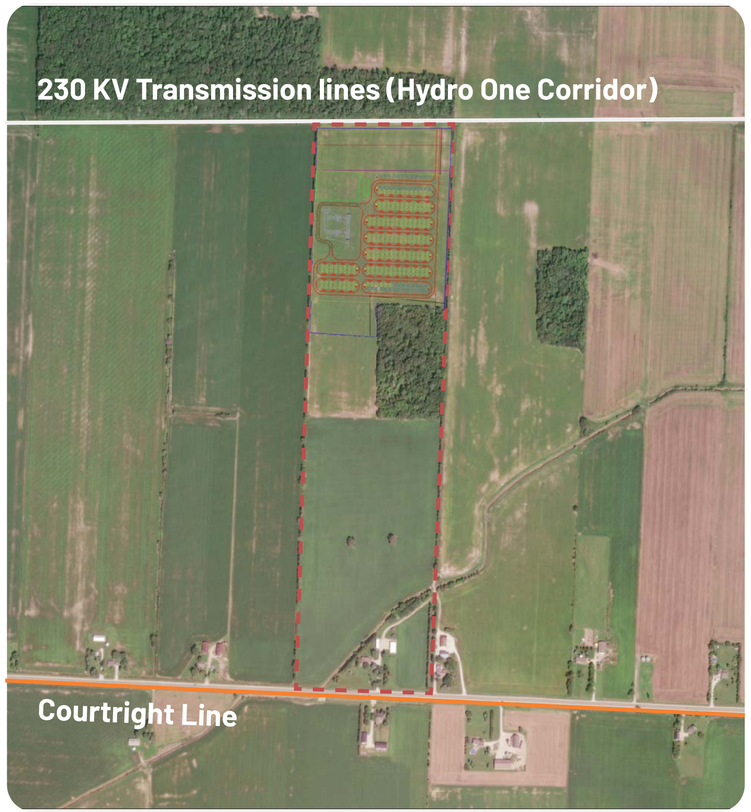
Project site



Location

The project site is located adjacent to the existing Hydro One transmission lines.

Small foot print size

The developed area is approximately 20 acres of land. The relatively small foot-print minimizes environmental impact.

Visual impact

The project site is hidden from view by trees, tucked away from neighbours to minimize environmental nuisance impacts.

Land use

The site is currently used for agriculture. A setback will be maintained from the woodland area.

Host land owner

A willing landowner who continues to retain ownership of the property.

Distance from residents

Approximately 750-800m from the nearest residence.

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Agricultural Impact Assessments (AIA)

RES is currently completing an Agricultural Impact Assessment (AIA) for submission to the Township of Enniskillen and County of Lambton.

The LT2 procurement process has been designed to require the completion of an AIA to the satisfaction of the municipality when a project is proposed to be located in a prime agricultural area. Based on the Ontario Ministry of Agriculture, Food, and Agribusiness (OMAFA) Guidelines for LT2 AIAs, a full AIA must include three components that may be completed in two separate stages under the LT2 RFP and Contract, as outlined below:

Stage	Component	Purpose
LT2 RFP Requirement (required as part of bid)	AIA Component One	Purpose is to consider ways to avoid potential impacts to prime agricultural land through evaluating possible alternative locations outside of prime agricultural areas or on lower priority agricultural lands.
LT2 Contractual Requirement (required within 18-months of the contract award date)	AIA Component Two	Purpose is to prepare an assessment of agricultural impacts anticipated to result from the project.
	AIA Component Three	Purpose is to identify approaches to minimize and mitigate impacts to agriculture.

The AIA Report that is currently being prepared for RES will include all three components required by OMAFA to demonstrate that there are no reasonable alternative locations outside of the prime agricultural area or on lower priority agricultural lands, to assess agricultural impacts of the proposed BESS, and to identify recommendations to minimize and mitigate impacts of the BESS on agriculture.

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Permit and approval requirements

The BESS itself does not trigger the requirement for a Class EA. However, the transformer station (115 kV or higher) does, and will follow the Class EA for Transmission Facilities process (Hydro One, 2024).

Two possible Class EA pathways:

Option 1 – Class EA Screening (local consultation, no unmitigable impacts).

Option 2 – Full Class EA (detailed studies, public review and comment on Draft ESR.

Although only the transformer station triggers the Class EA requirements, we will voluntarily include the entire project to provide for comprehensive community & Indigenous engagement.

All EA pathways require:

- Identification of environmental effects
- Mitigation and monitoring commitments
- Consultation with residents, Indigenous communities, and regulatory agencies

Post-Contract Permits:

- Environmental Activity & Sector Registry (EASR) registration for noise
- EASR or Environmental Compliance Approval (ECA) for stormwater management
- Archaeological Acceptance from the Ministry of Citizenship and Multiculturalism (MCM)
- Additional approvals may be required depending on design and nearby environmental features

Local and municipal approvals

A Zoning By-law Amendment and Site Plan Approval will be required from the Township of Enniskillen / County of Lambton.

A permit may be required from the St. Clair Region Conservation Authority (SCRCA).

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Timeline

2024 — Early development

- Securing site control
- Fatal flaw analysis
- Permitting review

2025 — IESO Procurement

- Conceptual design
- Early Fire Risk Management planning
- Early engagement with Indigenous communities and key stakeholders
- Public open house
- IESO proposal submission
- Completion of Agricultural Impact Assessment
- Non-binding Municipal Resolution in support of Proposal Submission*

2026/2027 — Engineering, design & approvals

- IESO LT2(c-1) contract award
- Detailed engineering
- Permitting & approvals (including Class EA for Transmission Facilities)
- Detailed emergency response planning
- Transmission grid connection process

2028/2030 — Commercial operations

- Construction period of ~12 months
- Construction mobilization and equipment delivery to site
- BESS installed and commissioned
- Anticipated commercial operation begins (2029)

2050 — Operations & decommissioning

- Remote monitoring, scheduled maintenance and augmentation
- Decommissioning bond
- Equipment removed at end-of-life
- Land rehabilitated to conditions prior to installation

Engagement with regulatory authorities having jurisdiction, Indigenous communities, and the public

*For the purposes of the LT2(c-1) RFP, the Proponent entity will be *Inwood Energy Storage Inc.*

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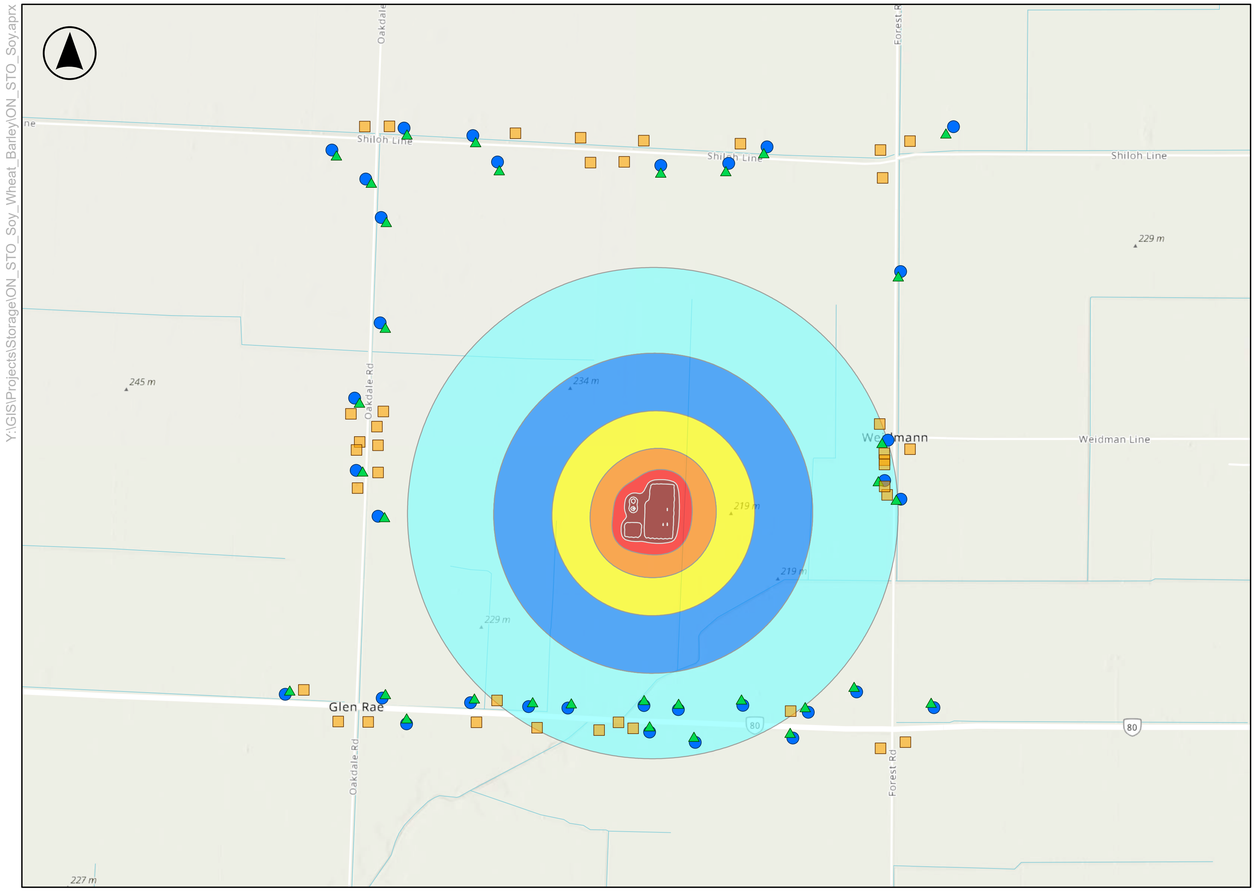
Predicted acoustic footprint



0 0.38 0.75 km.

0 0.23 0.45 mi.

PROJECT #	30704	**ABSOLUTE SCALE**	1:18,000
PROJECT CODE	oct	**COORDSYS**	NAD 1983 CSRS UTM Zone 17N

Inwood Acoustics Receptors

- Plane of Window Points of Reception
- Outdoor Points of Reception
- Vacant Lot Points of Reception

Inwood Acoustics Calculation Grid

dBA

- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- 75 - 80

The overall predicted sound levels are indicative and correspond to the maximum anticipated sound output for each of the respective plant, as advised by a candidate manufacturer and from RES's experience of typical equipment. The propagation modelling therefore represents a relatively conservative scenario and actual sound levels would be expected to be less when the site is not operating at maximum capacity.

The predicted acoustic footprint may therefore show conservative results and should be considered illustrative only.

EDITOR	PhotonUser
DATE	October 2025
FORMAT	11x17

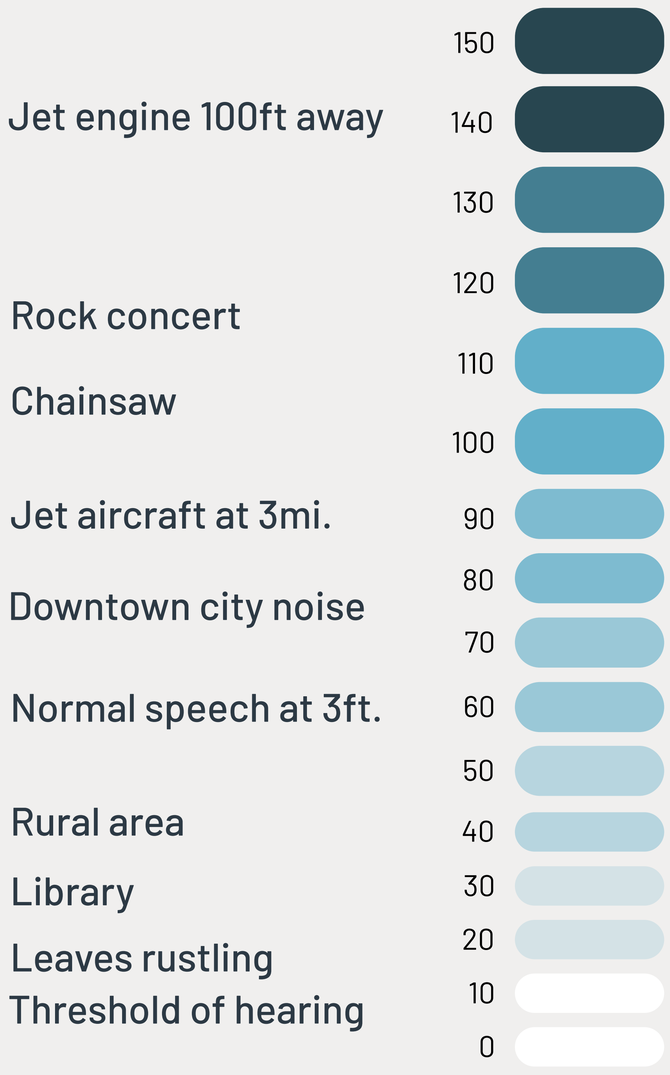
Acoustic assessment

An indicative acoustic assessment of the preliminary layout has been carried out using sound power level data for candidate equipment.

The predicted levels are based on conservative modelling assumptions and are expected to be lower in practice.

Noise impact

Sound level comparisons (dBA)



Predicted project sound levels at points of reception are expected to be comparable to background sound levels experienced in a typical rural area.

Noise compliance overview

Provincial Guidance: Sound level limits established by the MECP are 45 dBA during the daytime and 40 dBA during the evening/nighttime for points of reception in rural (Class 3) areas.

Predicted project levels: Preliminary modelling predicts that the project sound levels will meet applicable limits at surrounding points of reception (see illustrative acoustic footprint figure).

Next step: The project will be registered in the MECP's Environmental Activity and Sector Registry (EASR).

Time period	MECP Exclusionary Sound Level Limit (dBA) (Leq(1-hr))
Daytime (07:00-19:00)	45
Evenings (19:00-23:00)	40
Nighttime (23:00-07:00)	40

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Fire safety

Regarding fire service we will:

- Absorb reasonable Township & first responder/fire service costs related to the ERP development
- Ensure that local emergency response services are adequately trained and resourced to respond in the unlikely event of project-related safety events

Monitoring

The BESS is monitored and controlled 24/7. There are built-in fire protection systems in which the batteries automatically isolate themselves electrically when their monitoring systems detect cells/modules out of normal operating conditions and when fire alarm control panels are in alarm.

The equipment layout will maintain a minimum of 3m between battery storage enclosures (final spacing in accordance with UL9540A standards).

The site is remotely located in accordance with NFPA 855.

A preliminary Emergency Response & Fire Safety Plan (Fire Risk Management Plan) outline has been developed in collaboration with local authorities, including fire chiefs and fire departments of Oil Springs, Dawn Euphemia, Brooke Fire Rescue, Petrolia & North Enniskillen.

During detailed design, the Fire Risk Management Plan will be detailed to include:

- Hazard Mitigation Analysis (HMA), in accordance with NFPA 855
- Fire Risk Assessment (FRA), including smoke dispersion studies
- Emergency Response Plan, based on the selected equipment and developed in collaboration with local fire services

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Emergency preparedness

Emergency response & preparedness

Minimum 6m emergency access road — two potential access routes under evaluation.

Anticipated dedicated **on-site water storage tank**.

Detailed Emergency Response Plan to be finalized during detailed design.

Clear guidance for facility operators & first responders.

Training provided before operation and regularly during operations.

On-site orientation & walk-downs with fire services.

Fire risk management strategy

- Measures in place to ensure very low risk of fire ignition and prevent sustaining fire
- Measures designed to ensure very low risk of fire propagation within any enclosure
- System layout engineered to prevent fire spread between major project elements.
- Fire service will have capability to monitor any event, intervening only if controls fail
- Facility design incorporates Fire Department and Authorities Having Jurisdiction guidance and fire service capabilities

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Community engagement

Our commitment

We believe in early, transparent, and ongoing dialogue with stakeholders and rights holders.

Our principles are:

Listening first – your feedback will help shape decisions.

Transparency – sharing clear, timely updates and communication at all stages.

Respect – collaboration in the design and development and addressing noise, traffic, and safety concerns.

Fairness – ensuring accountability and that benefits are shared locally.

Community benefits

Economic boost

Attract significant new investment into Southwest Ontario.

Indigenous participation

Indigenous partnership and ownership with local First Nations.

Local jobs & investment

Up to 250 new construction jobs and estimated 10 long-term operations jobs.

Support for landholders

Fair agreements and new income opportunities.

Grid reliability

Deliver up to 240MW of new, flexible capacity to stabilize supply during peak demand, reduce outages, and ensure reliable power.

Community Benefit Fund

Co-designed by stakeholders, to provide direct and targeted benefits.

Affordable energy

Enough to power nearly 72,000 households.

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