# Frequently Asked Questions (FAQ)

## Inwood Energy Storage Project

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| Ref | 30704 |

### Revision History

| Issue | Date | Author | Notes |
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| 01 | 26/11/2025 | RES Canada | First issue for Inwood Energy Storage Project |
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# Project Design and Siting

## Why is this Project required?

The Province of Ontario has identified the need for more electricity in the coming years due to increasing demand and the refurbishment of nuclear facilities, as well as expiring contracts for existing oil and natural gas-fired facilities. Recognizing BESS' capabilities in addressing this need, Ontario's Independent Electricity System Operator (IESO) has awarded supply contracts for more than 2,700MW of BESS projects in 2023 and 2024, with more annual contracts anticipated through 2028. The Inwood Energy Storage Project is being proposed by RES for the IESO's Long Term 2 Capacity Bid Window 1 Request for Proposals (the "LT2(c-1) RFP") due on December 18, 2025.

## What are you currently seeking from the Township?

RES is proposing to develop, build and operate a BESS Project with a capacity of up to 240 megawatts (MW), west of Inwood in the Township of Enniskillen. The Inwood Energy Storage Project would provide the provincial electric system with reliability services needed to support increasing electricity demand. At this stage, RES is seeking a non-binding Municipal Resolution from the Township of Enniskillen to participate in the IESO's competitive tender, the LT2(c-1) RFP, due December 18, 2025. This form of non-binding support does not replace any planning and permitting approvals required for the development of the Project.

## How do battery energy storage systems work?

Battery energy storage technology supports the variable generation of renewable energy technologies by playing an important balancing and grid stability role. It helps support the grid by storing energy at times when generation exceeds demand and releasing electricity back to the provincial grid network when demand exceeds generation. It is considered the fastest technology for responding to a sudden spike in demand or an abrupt loss of supply. Intelligent battery software uses algorithms to coordinate energy production. Computerized control systems are used to decide when to store the energy to provide reserves or release it to the grid. Energy is released from the battery energy storage system during times of peak demand, keeping costs down and electricity flowing.

## I have power brown outs that affect my equipment. Will this Project fix this issue?

Residents receive their power from Hydro One's distribution (lower-voltage) system, while this Project is expected to connect to Hydro One's transmission (higher-voltage) system. Because the transmission system is upstream of the distribution system, improvements in efficiency or stability at the transmission level can sometimes contribute to a more stable distribution grid overall. Power quality issues such as brownouts are typically caused by conditions on the distribution system. At this stage, it is not possible to determine the specific impact this Project may have on local power quality without Hydro One's detailed assessment.

## How will the Project economically benefit the Township?

Under the Project Support Agreement with Enniskillen Township, the Project will commit to a one-time payment at start of operations, and a subsequent annual payment associated with the ongoing operations for the 20-year life of the IESO contract. Additionally, the Township can expect to see increase in Property Tax revenue from the operations of the BESS facility.

## Is there a subsidy the Project will receive from the government?

The Inwood Energy Storage Project will be participating in a competitive tender that has been floated by the provincial grid operator, namely the IESO's LT2 Capacity Bid Window 1 RFP due December 18, 2025. Given its historically price-competitive deployment in Ontario, RES does not anticipate the BESS projects receiving government subsidies to enable their economic viability.

## Why should we support BESS over natural gas for the future energy security of the region?

Based on the results of the previous E-LT1 and LT1 procurements, BESS projects deliver the same services at almost half the cost of natural gas projects. Additionally, BESS is a non-emitting operational resource that can provide a wider range of grid-related solutions compared to legacy technologies like the natural gas combined-cycle gas turbine.

## How many containers are you planning to put in?

While we have not finalized our equipment selection, an up to 240 MW Project is expected to house around approximately 370 containers. Please note, this is an indicative number which may decrease if the IESO determines that we cannot connect at a full capacity of 240 MW.

## Will this project affect property value?

RES believes our projects have a net positive impact on the communities where they are located. Local infrastructure improvements that are often enabled through the influx of property taxes and annual Community Benefit Fund contributions to the municipality are factors that support strengthened property values.

## Is there capacity on the Hydro One Transmission Line that the Project is proposed to connect to?

In the previous provincial battery storage procurements, projects connecting to the Hydro One 230 kilovolt (kV) transmission circuits in Enniskillen received a 'not deliverable' response. Since then, as part of the current procurement, the IESO has updated their deliverability testing methodology and released an updated **Connection Guidance document (dated August 14, 2025)**. In this document, the circuits in Enniskillen that this Project plans to connect to are marked as having capacity available for resources such as the proposed BESS.

## Why don't you go towards the west, closer to the river, on industrial land?

RES believes a BESS development in Enniskillen Township can occur with a successful combination of willing land hosts near existing transmission, site suitability, and ease of access. Based on feedback received from the Landowners in Enniskillen Township, we are currently considering a BESS project at the back of the property located at 5930 Courtright Line.

### Where is the closest BESS project of the same size?

Please see the following inexhaustive list of utility-scale BESS projects under development and/or construction, in proximity to Enniskillen Township:

- Tilbury Battery Storage, 80 MW / 320 MWh, Tilbury, Chatham Kent
- Edgeware Energy Storage Project, 74 MW / 296 MWh, City of St. Thomas
- Oxford Battery Energy Storage Project, 125 MW / 500 MWh, City of Woodstock
- Hagersville Battery Energy Storage Park, 300 MW / 1200 MWh, Haldimand County
- Hedley BESS, 211 MW / 844 MWh, Haldimand County

The Oneida Energy Storage project, rated at 250 MW / 1000 MWh and located in Haldimand County, is currently operational.

## Community Engagement

### Who have you engaged so far?

As part of our ongoing Community and Indigenous Engagement campaign, we have been engaging and continue to engage stakeholders and rightsholders at various levels. These include, but are not limited to,

- Residents in the nearby Township(s)
- Adjacent neighbours
- County of Lambton
- Enniskillen Township
- Municipality of Brooke-Alvinston
- St. Clair Region Conservation Authority
- Regional Fire Department(s), namely the Petrolia & North Enniskillen Fire Department, Oil Springs Fire Department, Dawn-Euphemia Fire Department, and Brooke Fire Rescue
- Hydro One Networks Inc.
- Independent Electricity System Operator
- Infrastructure Ontario

### How can landowners who are closest to the Project directly benefit from it?

RES has been engaging with the neighbours on the benefits and impacts of the Inwood Energy Storage Project. We fully respect the residents' rights to private enjoyment of their properties and will seek to minimize all impacts associated with the development, construction, and operations of the Project. RES is committed to ensuring the conversations continue to ensure this Project is well integrated in the community, and that the economic value of the Project is being shared fairly through a transparent, direct, and tangible benefit program. We acknowledge and appreciate the feedback received so far and will take all input into consideration as we continue to refine our community engagement approach.

### What deliverables should the public expect from the Project's open house?

Based on community engagement and public interactions during and beyond the public Open House on November 4, 2025, RES has updated this document of Frequently Asked Questions (FAQ). Additionally, all updates will be communicated to community members through email and the Project Website, and the Township will be notified with a copy of the updated FAQ document.

# Impact on Prime Agricultural Land

## Why Prime Agricultural Land?

RES recognizes the importance of protecting farmland. There are provincial policies which aim to prevent the conversion of prime agricultural land to non-agricultural uses, but there are exceptions for infrastructure such as grid connected electrical facilities. The Project design minimizes land use by placing the battery system on a relatively small footprint (20 acres of buildable area) compared to other types of energy projects. And once built, it does not permanently remove land from agricultural production. The installation is not an intensive or invasive use. It involves modular enclosures placed on concrete pads and the land remains intact beneath the Project. At the end of the Project's operating life, all equipment will be removed, recycled and the land will be restored for future agricultural use.

As part of the pre-bid submission process prior to contract award, the IESO requires that projects proposed on prime agricultural lands complete, to the satisfaction of the municipality, a Pre-Agricultural Impact Assessment (AIA) as per the Ontario Ministry of Agriculture, Food and Agribusiness (OMAFA) Guidelines for the AIA Component One Requirement (May 21, 2025). The IESO also requires that completion of the full AIA (Components Two and Three) be completed to the satisfaction of the municipality within 18 months of the IESO contract date. RES has elected to voluntarily complete the full AIA (Components One, Two and Three) for submission to the Township of Enniskillen as part of the pre-bid process. The AIA framework requires such development to avoid, minimize, and mitigate impacts on prime agricultural areas, and to design the project in a way that respects local agricultural activities.

## What is an Agriculture Impact Assessment (AIA)?

An AIA evaluates potential impacts of non-agricultural uses on the agricultural system and recommends ways to avoid, or if avoidance is not possible, minimize and mitigate adverse impacts. AIA helps decision-makers understand what may be impacted by a proposed development. AIAs help support the long-term viability of the agri-food sector by contributing to the design of proposals in a manner that considers agricultural impacts.

## How will it be possible to remediate the land back to agricultural use after such a long disruption?

Upon completion of the operational life of the BESS, a comprehensive decommissioning process will be undertaken to ensure the property is safely restored for continued agricultural use. The decommissioning process will follow best management practices and regulatory requirements, including for example, dismantling and removal of all above- and below-ground infrastructure from the site, re-grading and stabilization of soil, replacement and levelling of topsoil, and re-establishment of tile drainage systems.

## Farmers use the existing Hydro One right-of-way to access their farmlands. If a road is constructed from Forest Road to the Project Site, how will the farmers be impacted?

The proposed access road from Forest Road anticipates using properties owned and serviced by Hydro One and Infrastructure Ontario. Accordingly, the access road and connections to the transmission line will be designed in consultation with Hydro One and Infrastructure Ontario to minimize impacts and complement local farm operations as much as possible. During the Class EA process, there will be multiple opportunities for public and

stakeholder engagement. Stakeholders will be invited to review draft reports, provide feedback, and suggest design refinements related to access routes, road use and environmental considerations. This will ensure that locally relevant inputs are incorporated into the design before final approvals are sought from the Authorities having jurisdiction.

## Environmental Assessments

### What environmental studies are you planning to do at this site?

If the Project is awarded a contract, an Environmental Impact Study (EIS) or the equivalent will be completed as part of the Class EA process under the *Ontario Environmental Assessment Act (EA Act)*. The EIS will assess potential impacts on wildlife and nearby natural features such as woodlands and watercourses. Additional environmental studies may include hydrogeology (groundwater) and/or surface water studies, if required, as part of the Stormwater Management (SWM) Plan.

### Will you be impacting the woodlot on the property in any way?

No, the EIS will identify appropriate setbacks from the adjacent woodlot. RES does not anticipate disturbing the woodlot.

## Safety and Fire Risk

### Please describe the battery units that you propose to utilize for the Project. Are these self-contained units?

The BESS proposed for the Project will utilize self-contained, modular battery units, designed for utility-scale applications. These units are housed in prefabricated, factory-tested enclosures, each integrating the battery cells, battery management system (BMS), thermal management (HVAC), and safety systems into a single transportable unit. This equipment will be supported by power conversion systems and associated high voltage interconnection equipment that will enable delivery of power via the 230 kV lines at the back of the property. The equipment will comply with the following inexhaustive list of certifications and standards:

- UL 1642: Certification of Lithium-ion Battery
- UL 1973: Batteries for Use in Stationary and Motive Auxiliary Power Applications
- UL 9540: Energy Storage Systems and Equipment
- UL 9540A: Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems
- NFPA 855: Standard for the Installation of Stationary Energy Storage Systems"

### What about fire risk?

There are two major elements to BESS safety: a) strict code compliance during design, construction, and operation of the Project, and b) efficient emergency response in case of safety incidents. RES' previous experience constructing a battery facility in Ontario enables us to properly site energy storage projects, considering setbacks and complying with industry benchmarks such as the Underwriter Laboratories (UL) certifications and the National Fire Protection Association (NFPA) fire standards that mitigate safety risks during the design, construction, and operation phases of the Project. Compliance with UL & NFPA benchmarks will ensure redundancy in safety features, rigorous testing and certifications, advanced monitoring and controls, and a well-detailed commissioning plan.

Additionally, the Project will also comply with the National Building Code of Canada, National Fire Code of Canada, Fire Protection and Prevention Act, and the Ontario Fire Code.

Unlike electric vehicles and some older BESS projects, all RES-managed projects are monitored 24/7/365 from our remote-control center, which can access, monitor, and manage each individual rack in the system. If any operational limits for temperature, current, or voltages are breached, the BMS enacts the automatic electrical disconnection, along with raising multiple levels of alarms prior to potential breach of the protection limits. In the unlikely case of a fire-related incident, local first responders will be trained and equipped with the Project's Emergency Response Plan (ERP) that will be developed upon the final equipment selection and completion of the detailed design. An initial Fire Risk Management Plan Outline has been developed in collaboration with local fire departments to highlight safety-related design considerations and RES' fire risk prevention philosophy. Based on our commitment to the Township of Enniskillen, the local fire departments will be trained by BESS experts for adequate fire preparedness and coordinated emergency response.

The anticipated battery chemistry for the Project is lithium iron phosphate (LFP). LFP battery chemistries have shown to have better stability against thermal runaway at higher temperatures compared to other legacy battery chemistries. Batteries for the Inwood Energy Storage Project will be tested and certified to the UL 9540 standard, demonstrating adequate safety for energy storage systems. At a unit level, successful testing following deliberate initiation of thermal runaway in accordance with UL 9540A will show,

- No observable flaming outside the initiated battery rack
- Surface temperatures of modules within the battery racks adjacent to the initiated battery rack do not exceed the temperature at which thermally initiated cell venting occurs
- Wall surface temperature rise does not exceed a specified temperature above ambient
- Safety hazards are not observed during the test

A number of mitigation measures will also be implemented to further reduce risk from fire. These include:

- Site design and installation in accordance with NFPA 855
- Minimum of 3-metre equipment spacing between enclosure groups (final spacing in accordance with UL9540A standards)
- Protection systems
- Secondary access to battery enclosures
- Secondary emergency access for emergency services, for use if the main entrance is not accessible
- A fire suppression system with the following safety precautions potentially incorporated: fire alarm, gas, smoke and heat detectors, heat-activated sprinkler system, fire related insulation, strobe light, and a horn
- HVAC systems to keep the batteries from overheating
- During detailed design, development of an Emergency Response Plan (ERP)

To ensure safety and fire preparedness, RES will absorb reasonable Township & first responder/fire service costs related to the ERP development and ensure that local emergency response services are adequately trained and resourced to respond in the unlikely event of project-related safety events. From what we have seen from a lab and testing environment and the various rare instances, the smoke and off gas is equal to what is produced from a structure fire.

## Where would the water to extinguish the fire come from and where does the water runoff go?

If required, RES may integrate a dedicated on-site water tank for the Project. If awarded a Contract, the Project will develop a comprehensive Stormwater Management (SWM) Plan that will evaluate the most suitable engineering design to prevent site runoff. RES expects the SWM Plan to be reviewed by the Ontario Ministry of the Environment, Conservation and Parks (MECP), the Township of Enniskillen, and the St. Clair Region Conservation Authority, among other stakeholders.

## Will the water runoff be hazardous?

When tested, the water used to fight simulated battery fires in the lab was not found to be hazardous.

## Is there any radiation coming out of the BESS?

There is no data from any large fire test or results of any incidents that suggest radiation concerns from BESS.

## What are the risks of soot and toxic contaminants in the event of a fire?

From what has been observed at a lab and testing environment and based on the analysis of rare fire-related BESS incidents, the smoke and off-gas from a BESS fire is equal to what is produced from a regular structure fire. RES is committed to performing any required assessments and studies to inform the Project's fire safety approach, such as a fire risk assessment, plume analysis, or others.

## What are the evacuation measures in the event of a fire outbreak?

RES will work closely with the Oil Springs, Petrolia & North Enniskillen, Dawn Euphemia and Brooke-Alvinston Fire Departments to ensure safe system design, provide training, and share information about risks to ensure first responders are prepared to respond appropriately in the event of an emergency. As such, we will be ready to fund the development of an Emergency Response Plan (ERP) and deliver high-quality training for first responders, preparing them for coordinated responses that prioritize safety.

In coordination with a qualified Fire Protection engineer, RES, the regional fire departments, and other stakeholders as applicable, the ERP will identify specific safety concerns and hazards associated with this battery installation and develop a tailored fire safety approach. The approach to fire safety and hazard mitigation will be documented through development of a Project-specific Hazard Mitigation Analysis (HMA). The specific approach to emergency response and associated responsibility for engaging with a fire event will be defined through the Project's ERP. In case of an event, we may recommend measures like hot zones for firefighting with the incident commander shouldering the primary responsibility of managing the incident.

## If a fire were to start at the BESS facility and damage nearby crops, would there be insurance coverage or compensation for affected landowners?

For a fire that was caused by the BESS system, any consequential damage such as damage to surrounding crops, would be covered by RES' general liability insurance.

## Stormwater Management

### How will you manage stormwater or prevent runoff from the site from affecting farmland and surrounding watercourses and agricultural drains? This area is near a floodplain.

Development of a comprehensive Stormwater Management (SWM) Plan will be required to inform the most suitable engineering design requirements for preventing site runoff. The MECP and the Township and/or the Conservation Authority will review and provide comments on the SWM Plan as part of future permitting processes, should the Project be awarded a contract. The BESS is sited well outside of the floodplain mapped at the southernmost end of the property.

## Noise and Visual Impact

### Is there any noise impact from the Project? How will it be mitigated?

As part of the Environmental Activity and Sector Registry (EASR) permitting process, an Acoustic Assessment Report (AAR) will be completed for the Project and registered with the Ministry of Environment, Conservation and Parks (MECP). This includes an ambient noise survey to establish the existing 'noise envelope' at the site, taking into consideration zoning, nearby roads, and other relevant factors.

The batteries themselves do not make much noise; however, the cooling system fans do generate noise when operating. Use of an HVAC (heating, ventilation, and air conditioning) system is required to keep the batteries at safe operating temperatures (approximately ± 21°C), especially during the summer months. The noise from the HVAC is expected to be minimal to negligible at any nearby points of reception. This AAR will demonstrate that the BESS will operate within the applicable provincial sound level limits at all nearby points of reception.

### What is a point of reception?

A point of reception is a location within a noise sensitive area of land which represents the anticipated worst-case area of noise reception. For example, the centre of a window on the top floor of a house, which may represent a bedroom, may be deemed a point of reception, and the relevant noise limits must be met here.

### What sound levels need to be met?

The Project must be designed to meet the applicable MECP sound level limits at all points of reception surrounding the project. According to MECP guidelines, allowable sound levels in rural (Class 3) areas are 45 decibels (dBA) during the daytime and 40 dBA during the evening and nighttime at points of reception. For context, sound levels between 40–45 dBA are comparable to the quiet background noise typically experienced in rural environments.

### What does 40dBA sound like?

When the MECP set an evening and nighttime limit of 40 dBA for Class 3 rural areas, it was intended to protect environments that are naturally quiet. By meeting 40 dBA, Project-related noise will be similar to typical sound levels experienced in rural areas, removing disturbance for nearby residents.

## What are the main sources of noise from a battery energy storage system (BESS) facility?

The batteries themselves do not make much noise. However, the cooling system fans do generate noise when operating. Use of an HVAC (heating, ventilation, and air conditioning) system is required to keep the batteries at safe operating temperatures (approximately ± 21°C), especially during the summer months. The noise from the HVAC systems, while operating alongside all other Project sources, must be designed to meet the MECP's sound level limits at nearby residences. The Acoustic Assessment Report that will be registered with the MECP will demonstrate that the BESS will operate within the applicable provincial sound level limits at all nearby points of reception.

## Is there buzzing from the transformers?

Some electrical equipment can exhibit buzzing sound qualities, for example, transformers. The MECP requires that sources exhibiting characteristics such as buzzing are penalized in the required Acoustic Assessment Report, which recognizes the added potential impacts. Predicted sound levels that include this penalty must meet applicable Provincial sound level limits at all nearby points of reception.

## What is the noise impact on pets and animals with different hearing frequency ranges? Will the noise affect wildlife?

The Acoustic Assessment Report required for the Project focuses on sound levels for human receptors. Potential noise effects on pets and other animals vary by species and individual sensitivity. The predicted sound levels fall well within typical human hearing ranges and are generally less noticeable to animals, many of which are more responsive to higher-frequency sounds than those of the BESS cooling fans. Additionally, wildlife and livestock are not typically more sensitive to noise than humans.

## What are the light pollution impacts from the Project?

Lighting at the BESS facility will be minimal and the site will only use lighting that is required for safety and security, such as around entrances, equipment areas, and access points. All lights will be fully shielded, downward-facing, and motion-activated, which means they only turn on when needed, for example, if maintenance staff are on site at night. This approach helps minimize sky glow and light spill onto surrounding properties or natural areas. During detailed design and permitting, a Lighting Plan will be completed to assess brightness levels, placement, and visibility from nearby properties. The results of the Lighting Plan will be shared with the neighbours; this process provides an opportunity for community feedback to be reviewed and addressed through design refinements, such as light shielding, direction, or timing adjustments. As a result, the Project is not expected to cause noticeable light pollution or disrupt nearby residents or wildlife.

The Project site already has a mature row of trees along the property boundary, which naturally provides visual screening and helps block any potential light spill. RES will maintain this existing treeline and close any gaps to enhance screening. During the Class Environmental Assessment (Class EA) process, there will be multiple opportunities for public and stakeholder engagement. Residents, landowners, and agencies will be invited to review draft reports, provide feedback, and suggest design refinements related to visual impacts, lighting, and other environmental considerations. This ensures that local input is incorporated into the final design and mitigation measures before approvals are finalized.

# Construction

## How will RES ensure that dust and debris from increased traffic don't impact local residents and road users during construction?

During construction, there will be a temporary increase in vehicle traffic related to equipment delivery and site preparation. RES will implement dust control measures, such as watering or surface stabilization on access roads, limiting vehicle speeds, and scheduling deliveries to minimize congestion and disturbance to nearby residents. Once construction is complete, traffic will significantly decrease, as the BESS facility requires only minimal operational visits for monitoring and maintenance. Following the construction period, BESS operations will be largely unnoticeable. The facility is not expected to produce any significant noise, odour, vibration, or light, and will largely be screened by existing vegetation or fencing, helping the Project blend into the surrounding rural landscape. As such, the Project is not expected to cause ongoing dust, traffic, or significant visual impacts once operational.

## Which access routes will trucks and equipment use during construction, and how will you minimize disruption to nearby properties?

RES proposes two access routes: 1. Access route via Forest Road and 2. Access route via Courtright Line. Feedback received from nearby landowners regarding preferred access routes has been carefully considered. As the Project design advances, RES will continue to evaluate access options to minimize local impacts and ensure safe, efficient construction access. Updated designs, including the final access route selection, may be shared for review and comment during the Class EA process, providing additional opportunities for landowners and community members to share input.

## Will local contractors or workers have the chance to be involved in the construction of the project?

RES looks to support local economic participation whenever possible. During construction, there may be opportunities for qualified local contractors, tradespeople, and service providers to contribute to the Project. As the Project advances toward construction, RES and its construction partners will seek to share information about upcoming opportunities and hold local information sessions to connect with interested businesses and workers.