

Independent Electricity System Operator (IESO) Request for Qualifications (RFQ)

Markham Support Resolution Request

Submitted by:

Alectra Convergent Development LP

November 2022

IESO RFQ Purpose:

After more than a decade of strong supply, Ontario is entering a period of emerging electricity system needs, driven by increased demand, the retirement of the Pickering nuclear plant, the refurbishment of other nuclear generating units, as well as expiring contracts with facilities. The long-term request for proposals (the “LT1 RFP”), is intended to acquire capacity services to meet system reliability needs from New Build Electricity resources starting in 2027 or earlier.

A complimentary mechanism outlined in the AAR, the IESO is seeking to procure approximately 2,500 MW of electricity reliability services from New Build Electricity resources through the LT1 RFP, measured on an effective capacity basis. The Expedited Process will seek to acquire a minimum of 1,000 MW of additional effective capacity.

The LT1 RFP, together with the Expedited Process, is expected to competitively procure year-round effective capacity from dispatchable New Build resources, including New Build facilities incorporating electricity generation and storage, registered or able to become registered in the IESO Administered Markets, larger than 1 MW and which can deliver a continuous amount of Electricity to a connection point on a Distribution System or Transmission System for at least four (4) consecutive hours.

Alectra Energy Solutions in partnership with Convergent Energy + Power is requesting a Council Support Resolution for the proposed location of the joint project being put forward by both companies. Projects are evaluated primarily on bid price, but there are also non-price criteria scored during evaluation which can enhance the score of projects able to demonstrate local governing body support, along with other criteria. A Municipal Council Resolution is an ultimate requirement of all successful bids, however, obtaining **Municipal Council Support Resolutions before Dec. 20, 2022**, will improve applicable project scores and increase our chances of bringing your project to fruition. The support resolution would award the companies with an additional three (3) points on the RFQ submission. If the proposed location and project are successful in passing the qualification stage, the companies will then bid on the RFP in Q1 of 2023. The following pages outline the proposed project, location, and benefits of the project to the City.

The Proposed Project

Details:

What Battery Energy Storage Systems (BESS) are:

Battery Energy Storage Systems, or BESS, are rechargeable batteries that can store energy from different sources or during off-peak hours and discharge it when needed.

Potential site locations and MWs being proposed:

The first Markham site being considered will connect to the Alectra Utilities A.M. Walker Transformer Station (Markham MTS #2) at 7970 Markham Rd (R.R. 68). We are proposing a system up to 400 MWh (100MW).

The second Markham site being considered will connect to the Alectra Utilities J.V. Fry Transformer Station (Markham MTS #1) at 3430 14th Ave. We are proposing a system up to 120 MWh (30 MW).

What it does:

Utility scale BESS consist of one or more batteries and are typically used to balance the supply and demand of the provincial electricity grid. These systems also have the capability to improve grid stability and provide backup power in some applications.

Technology specs:

Only proven and top tier equipment suppliers will be used. Long-term quality and capacity guarantees will be basic requirements, along with superior safety related track records. Specific power density and system efficiencies vary slightly and may impact space and other project specific information provided below.

Size of the projects:

Site 1 (Markham MTS #2): Up to 200,000 sq.ft. pending IESO site approvals.

Site 2 (Markham MTS #1): Up to 15,000-85,000 sq.ft. pending IESO site approvals.

Safety:

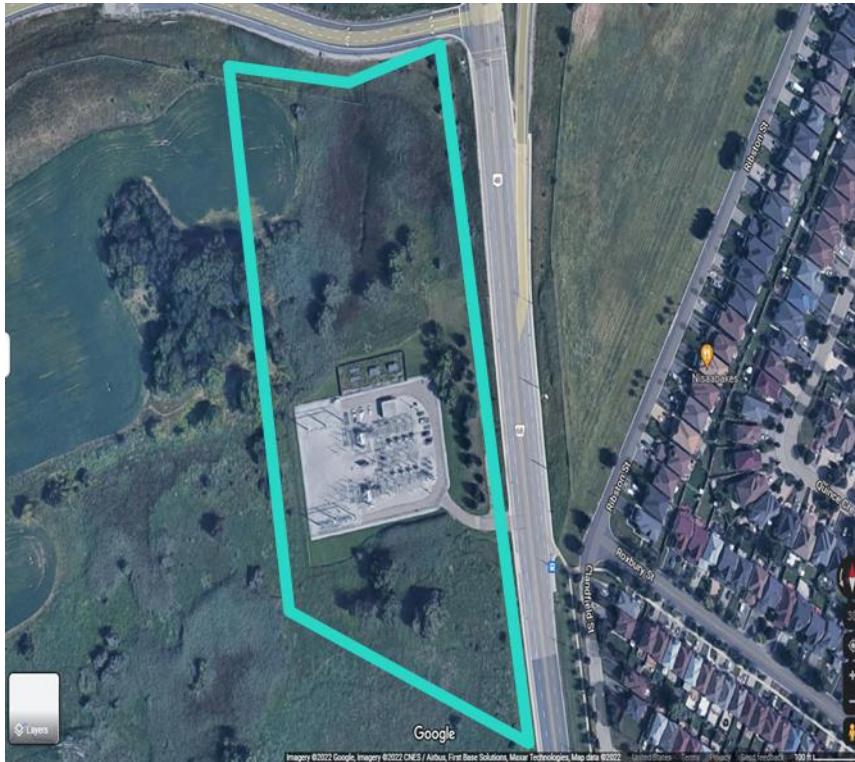
Safety is a main component of these installations. Tier 1 suppliers include safety in all aspects of their designs from the individual battery cell design to factory installed connections between cells, up to system level battery monitoring systems (BMS) that incorporate the latest in multi-level fault detection, isolation, and protection features. Noise emissions are generally lower than many HVAC systems and environmental studies will be performed at each site to ensure no adverse impacts to all adjacent properties and surrounding areas.

Other Items:

- Will work with the City of Markham to adhere to zoning, landscaping, and beautification standards.
- The site will be secured and monitored on a 24/7 basis

Proposed Markham Locations and Picture of a BESS

Site 1: Alectra A.M. Walker T.S. at 7970 Markham Rd (R.R. 68)



Site 2: Alectra J.V. Fry T.S. at 3430 14th Avenue.





Community Benefit Plan

Financial:

- ✓ Dividends: Alectra Energy Services, a subsidiary of Alectra Inc, stands to benefit from consistent revenues as a successful proponent of this RFP.
- ✓ Increased property tax and permitting revenues for the City

Reliability and Resiliency:

- ✓ New local storage assets would result in reduced outages in the community during extreme weather events and improve Alectra's restoration timeline when outages do happen.

Jobs and Economic Development:

- ✓ Support faster and more affordable connection of new loads; alternative to traditional poles and wires infrastructure.
- ✓ This will allow the city to be more strategic in realizing their economic development goals when sourcing large projects, such as film studios, data centres and manufacturing facilities.

Environmental benefits:

- ✓ New storage capacity will reduce Ontario's need to rely on gas generation in the coming years.
- ✓ Battery storage is clean and generally uses non-emitting power such as hydro, nuclear and renewables generated at off-peak times

MUNICIPAL SUPPORT RESOLUTION:

Resolution NO: ____ Date: ____.

[Note: The Municipal Support Resolution must not be dated earlier than January 27, 2022.]

WHEREAS:

1. The Proponent is proposing to construct and operate a Long-Term Reliability Project, with the characteristics outlined in the table below, under the E-LT1 RFP.
2. Pursuant to the E-LT1 RFP, Proposals that receive the formal support of the local jurisdictional authorities of all the project communities in which the Long-Term Reliability Project is located in the form of a support resolution will be awarded Rated Criteria points for the purpose of ranking the Proposal in relation to other Proposals for a contract under the E-LT1 RFP;
3. Pursuant to the E-LT1 RFP, Proposals that did not receive the formal support of the local jurisdictional authorities of all the project communities in which the Long-Term Reliability Project is located in the form of a support resolution may be required under the E-LT1 Contract to be awarded pursuant to the E-LT1 RFP to submit such support resolution for compliance with its obligations; and

NOW THEREFORE BE IT RESOLVED THAT:

1. The council of Markham supports in principle the development, construction and operation of the Long-Term Reliability Project on the Subject Lands as follows: Markham #2 (7970 Markham Rd.) and Markham #1 (3430 14th Ave).
2. This resolution's sole purpose is to enable the Proponent to pursue the receipt of Rated Criteria points under E-LT1 RFP or to satisfy its obligations under any awarded E-LT1 Contract and may not be used for the purpose of any other form of approval, including but not limited to any municipal approval required in relation to the Proposal or Long-Term Reliability Project or for any other purpose. Rated Criteria points will be used to rank the Proponent's Proposal in relation to other Proposals received by the IESO under the E-LT1 RFP.
3. Though this resolution may impact the rank of the Proponent's Proposal in relation to other Proposals received by the IESO, it does not guarantee a contract will be offered to the Proponent under the E-LT1 RFP.

DULY RESOLVED BY THE LOCAL MUNICIPALITY

on the _ day of __, 20_.