



Subject: Northland Power Requesting A Letter of Endorsement

Report to: Thorold City Council

Recommendations

1. That Report CAO 12-2023 be received for information.

Key Facts

- The purpose of this report is to provide Council with an update on Northland Power's Community Engagement activities regarding the proposal to build 198 MW of electricity capacity at their location in Thorold at 90 Allanburg Road. This will add an additional electricity capacity to power 100,000 homes during peak loads.
- A requirement of the IESO procurement process is that all utilities companies wishing to submit a proposal must request an endorsement from the municipality where the project is located.
- Shahid Khan from Northland Power presented to City Council on Tuesday, May 2, 2023 regarding the Independent Electricity System Operator (IESO) LT1 RFP for 1,500 MW of non-storage capacity with an eight hour runtime to address provincial and regional needs.
- As a result of in-person and online public engagement Northland Power is committed to securing contracts for Ontario produced Renewable Natural Gas (RNG); which is recognized as a low-carbon fuel by the IESO.
- The technical information within this report was provided by third-party subject matter experts.
- Northland Power is requesting Council to endorse their proposal and provide a Letter of Endorsement as part of the IESO application process.

Budgetary Status

Northland Power currently operates out of their facility at 90 Allanburg Road and are currently pursuing an opportunity to expand their facility with the construction of a new 198 MW peaker plant. Should Northland Power be successful in their bid to the IESO this will ensure that operation of the Thorold facility will continue until at least 2040.

Northland Power currently pays approximately \$428,960 in property taxes annually. Should Northland Power successfully secure a contract for the 198 MW peaker plant expansion this will ensure on-going property tax revenues, as well as a tax increase as a result of the expansion of their facility until 2040.

In discussion with Northland Power it is our understanding that should Council decide not to provide a Letter of Endorsement this will negatively impact Northland Power's bid on the LT1 RFP and any future potential expansion at their current operations in Thorold.

Analysis

The IESO works with stakeholders and communities across the province to plan and secure energy for the future, as well as to guide conservation efforts in Ontario. The IESO has a role in planning for and competitively procuring resources that meet Ontario's needs today and into the future. These may be met through diverse resources such as wind, solar, hydro, biomass, nuclear, natural gas, demand response, conservation, storage or other innovative technologies.

After more than a decade of strong supply, Ontario is entering a period of emerging electricity system needs, driven by increasing demand, the retirement of the Pickering nuclear plant, the refurbishment of other nuclear generating units, as well as expiring contracts for existing facilities. Recognizing the necessity to address these needs in a timely, cost-effective and flexible manner, the IESO has engaged with stakeholders in the development of a resource adequacy framework.

One of the mechanisms intended to support the IESO's resource adequacy initiatives is the Long-Term Request for Proposals (the "LT1 RFP"), which is intended to acquire capacity services to meet system reliability needs from New Build and Eligible Expansion Electricity resources starting in 2028 or earlier.

To meet the objectives as set out by the IESO's LT1 RFP Northland Power is preparing a bid that will expand their existing Thorold location to accommodate a 198 MW natural gas peaker plant. The power contract from the IESO is for capacity only, not delivered energy. As a capacity facility, this means that the Thorold Peaking Project will only operate during high-demand times when electrical energy is needed most or in case of either a planned or unexpected outage that affects the electricity grid. It is forecasted that the peaker plant will only operate between one and five percent of the time.

The total financial commitment by Northland Power for the construction of the Peaker Plant is estimated at \$300 million. \$100 million is for equipment and the remaining \$200 million be spend on local suppliers and workers. In a preliminary Labour Market Assessment it is estimated that over 160 full-time workers will be required through local trade and labour organizations to meet the construction needs of the expansion. This will also ensure that on-going employment of Northland Power's local labour force.

As part of the engagement process Northland Power has:

- Sent invites to 2,229 households in Thorold, as well as to surrounding First Nations, to attend both in-person and online engagement sessions.
- Hosted an in-person community meeting at JM's Banquet and Event Centre on July 6, 2023.
- Presented to Niagara Region's Planning and Economic Development Committee on July 12, 2023.
- Appeared on Newstalk 610 CKTB with Walter Sendzik
- Hosted an online Town Hall in partnership with Tidal n August 24th, 2023.

Impact on the Environment, Climate Change

Public electricity and heat production currently represent less than 4% of all Green House Gases (GHGs) emissions in the province based on information provided by the Ontario Government. GHGs are the main driver of the greenhouse effect and human-induced climate change. When dispersed into the atmosphere, GHGs absorb energy, preventing heat from escaping into space. The impact of a GHG differs by how much energy it absorbs and how long it takes to break down. Methane for instance has a global warming potential greater than 25 times that of carbon dioxide.

Considering the impact of GHGs, Renewable Natural Gas has two key benefits:

- It is created from the capture of methane that would otherwise be released into the atmosphere.
- Its combustion for electricity, or other purposes, adds utility to this captured energy, while also converting methane to carbon dioxide, a less potent GHG. The use of RNG also offsets the extraction of conventional natural gas, therefore avoiding the introduction of a new carbon source into the atmosphere.

Northland Power's commitment to securing Ontario produced RNG whether as an offset or being used directly onsite will have a lower impact on the environment and climate change than using traditional natural gas. As result of this decision by Northland Power to commitment to the purchase of RNG contracts the peaker plant will achieve a net-zero carbon footprint.

The use of RNG as a low carbon fuel is identified by the IESO is identified as a playing a vital role in supporting Ontario's grid reliability past 2035 as the use of natural gas facilities are phased out.

In summary, staff are bringing this forward for Council's information. Third-party subject matter experts have provided the technical details included in this report.

Alternatives Reviewed

No Alternatives

Relationship to Strategic Plan

- Businesses and Economic Growth

Other Pertinent Reports

None.

Prepared by: Ken Scholtens
Manager of
Economic Development
Office of the CAO

Recommended by: Manoj Dilwaria
Chief Administrative Officer

Approved and Submitted by: Manoj Dilwaria Chief Administrative Officer

Appendices

Appendix Northland Power: Thorold Peaking Project – Community In-person
Community Meeting Minutes

Appendix	Northland Power: Thorold Peaking Project – Question and Answer to Address Community Concerns
Appendix	Northland Power: Thorold Peaking Project – Labour Market Assessment Summary
Appendix	Northland Power: Thorold Peaking Project – Renewable Natural Gas Brief
Appendix	Northland Power 2022 ESG Performance Index