## **Northwest Energy Task Force**

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## **ENERGY TASK FORCE**

Hon. Stephen Lecce
Minister of Energy and Electrification
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## Minister Lecce

First let us congratulate on your appointment as Ontario's Minister of Energy and Electrification.

We in the Northwest fully understand the importance of your ministry and its policies to the economic success of our region and we look forward to working with you and your colleagues to ensure that the energy needs of the region are a high priority.

We are writing to provide you and your cabinet colleagues provide you with information relative to the economic growth of Northwestern Ontario and the accompanying energy demands and opportunities.

For the past 20 years the Northwest Energy Task Force (NW ETF)<sup>1</sup> has compiled load projections for the ever-expanding mining industry in the Northwest. Those load forecasts have been regularly shared with the IESO and before them the OPA and has assisted those organizations in better understanding and projecting the needs of the region. We do this with a comprehensive understanding of the process of bringing a mine into production.

The NW ETF includes individuals knowledgeable in the planning and operation of generation and transmission facilities in Ontario. The NW ETF also includes municipal officials – both elected and staff, economic development professionals, utility managers and mining interests.

This collective of northwestern Ontario residents ensures that the submissions of the NW ETF reflect the needs and realities of the region.

Minister the northwest is facing massive mining growth while at the same time facing the need for significant investment in the provincial electrical transmission system and in some cases the development of distributed biomass generation. As you noted on Friday in Thunder Bay "The average [growth] in Ontario is 75% more power by the year 2050 but her up north, its 81 percent."

Northwestern Ontario is poised to be the most significant mining centre in Ontario and one of the top exploration/mine destinations in Canada. While the region already has 12 producing mines between Wawa, Rainy River and the north (more than double what existed just a few years ago), there are a total of 41 major exploration projects, advancing to production, throughout the region. Thirty-seven of those projects are in their advanced stage of working towards operation and are aiming

<sup>&</sup>lt;sup>1</sup> Formerly Common Voice Northwest Energy Task Force and now a committee of the Northwestern Ontario Municipal Association (NOMA)

to be operational no later than 2033. Only five of those are located in or near the Ring of Fire."<sup>2</sup>.

Thirteen of the advanced projects are for the strategically important critical minerals,

- 6 are copper-nickel palladium/platinum
- 4 are lithium
- 1 each of chromite, graphite and zinc

Sixteen of the 37 projects estimate capital expenditures totalling \$7.6 billion over the next 10 years. Eight of the projects will require 3,820 persons to construct the mines and nine will require 2,360 operating staff. These mines alone will have major impact on Ontario's economy, as well as directly benefiting Northwestern Ontario.

The publicly available documents for each of the 37 advanced projects indicate the urgent need to meet the challenge of a new electrical load of 1,484 MW by 2033<sup>3</sup>. Even with a transfer of power from the Northeast through the East-West Tie Bulk Transmission line, the Northwest will be short the power needed for this growth.

Today's base load for the Northwest is 484 MW. Should all of the mines come on stream and connect to the grid that will take the power requirement in the region to 1,968 MW. The region currently generates 430 MW during non-drought periods and can import an additional 650 MW from the Northeast. That means the region must generate an additional 1,049 MW of power if all of these mines can connect to the grid, more if there is a drought in any of the critical watersheds.

The expansion of the existing biomass PPA facilities and the addition of a number of new biomass generation facilities is a cost-effective solution that should be given priority. The capital cost of constructing these facilities will be the responsibility of the proponent and can be implemented well within the timeline necessary to meet the needs of the mining projects.<sup>4</sup>

One advantage of using forest biomass to produce electricity is the positive contribution it makes to combating climate change. Canada's Boreal Forest absorbs and stores extremely significant amounts of carbon dioxide. For wood fibre that can't be used for traditional forest products, electricity can be generated from forest biomass, creating a reliable, renewable, affordable and climate friendly alternative to more carbon-intensive options.

At the same time, the development of biomass facilities has an extremely positive impact on its host community through increased employment, tax revenue to all three orders of government and contributing to the overall stability of the area.

Minister, in the attached document we outline in detail the challenges facing the region in terms of getting electricity to where it is needed along with our proposed solutions for your government's consideration. These recommendations are based on an area-by-area analysis of the current and proposed electrical infrastructure and the proposed mining development.

The following is a summary of the recommendations of NOMA and the Northwest Energy Task Force

- A second circuit to phase II of the Waasigan Bulk Transmission Line which runs from Atikokan to Dryden should be added
- Extend the two circuit Waasigan line from Dryden to Red Lake as a bulk transmission line

<sup>&</sup>lt;sup>2</sup> It is recognized that the 5 advanced projects in the Ring of Fire is just the preliminary development of a significant mineral resource that will be mined over the next century or more.

<sup>&</sup>lt;sup>3</sup> The attached map illustrates their locations and names.

<sup>&</sup>lt;sup>4</sup> It takes 30 months to have a new biomass facility in place

- Add a second circuit to the Wataynikaneyap Power line running from Red Lake to North Spirit Lake in order to power the Frontier Lithium mine as an extension of the Waasigan Transmission line
- Add a second circuit to the Wataynikaneyap Power line running from Dinorwic to Pickle Lake and designating both circuits as a bulk transmission line
- Ensure that what ever option is selected for delivering power to the Ring of Fire
  that a two-circuit bulk transmission line be constructed to the community of
  Geraldton in the municipality of Greenstone as phase one of the proposed
  transmission line to the Ring of Fire.
- Extend the Power Purchase Agreements for the Atikokan Generating Station and Thunder Bay Pulp and Paper for a minimum of 10 years, with next to automatic renewal and where feasible, expand the PPA to enable each facility to increase their MW contribution to the grid
- Facilitate the construction of a number of biomass generation facilities in a variety of locations throughout the Northwest in order to generate the additional power needed to meet the increasing demands of the mining development.
- It is recommended that the IESO seek proposals for storage facilities in the Northwest as part of the next call for proposals as well as solar and wind generation.
- The Government, through the IESO should examine the opportunity to permanently expand the intertie capacity and contract with Manitoba Hydro.

Minister, if Ontario wants to truly be the powerhouse that is envisioned by the Fortress Am-Can concept while at the same time ensuring that new industrial projects like the mines under development also meet Ontario's goal of not expanding the use of carbon-based fuels then our recommendations will assist your government in achieving its various goals.

Minister, representatives of NOMA and the NW Energy Task Force would be pleased to meet with you to discuss these recommendations more fully.

Yours truly

Jim Vezina Co-Chair

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Cop to:

Hon. Sam Oosterhoff, Associate Minister of Energy-Intensive Industries Hon. Graydon Smith, Minister of Natural Resources Hon Kevin Holland, Associate Minister of Forestry and Forest Products Wendy Landry, President, Northwestern Ontario Municipal Association Members, Northwest Energy Task Force

Municipalities of Northwestern Ontario