By Email:
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Hon. Bob Chiarelli
Minister of Energy
Province of Ontario
4th Floor, Hearst Block
900 Bay Street
Toronto ON M7A 2E1

June ____, 2016

Dear Minister Chiarelli,

Thank you for your letter of May 19, 2016 addressed to the _____requesting our view of "*the scope of the next Long Term Energy Plan*" (LTEP).

The _____, a member of the Northwestern Ontario Municipal Association relies on Common Voice Northwest's Energy Task Force to assist us in understanding the energy needs of the Northwest. To this end we are endorsing the position developed by CVNW as outlined below.

This position has been adopted by the Council of _____at a public meeting held on _____, 2016.

Planning Process

At the beginning of our submission, we want to provide you with our perspective on the overall planning process as it has evolved under your mandate.

It is our understanding that the LTEP is a policy paper designed to begin the stakeholder/intervenor consultation process with respect to the Supply Mix Directive and the Integrated Power Systems Plan (IPSP). The LTEP would form the basis for the Supply Mix Directive and the IPSP.

The Supply Mix Directive outlines the requirements for IESO in developing the updated IPSP, and requires it to meet government's goals in several areas including: conservation, nuclear generation, renewable generation, hydroelectric generation, natural gas-fired generation, transmission and reliability.

In the previous IPSP, the process included:

- The Ministry of Energy developed and issued the LTEP;

- The Ministry of Energy developed and issued a Supply Mix Directive to the IESO. The Supply Mix Directive was filed with the Environmental Registry and open to public comment.
- The OPA (now IESO) published the IPSP, based on the Supply Mix Directive;
- The OPA (now IESO) applied to the Ontario Energy Board (OEB) for approval of the IPSP, which allows stakeholder/intervenor scrutiny and comment of the IPSP (although this application was never completed)

(collectively, the "Historical Regulatory Energy Planning Process").

If the Historical Regulatory Energy Planning Process repeats itself, we would anticipate a Supply Mix Directive to be issued by the Minister of Energy, followed by the issuance of a new IPSP by the IESO and a review the proposed IPSP by the OEB to ensure it follows the Supply Mix Directive and the Electricity Act.

However, it seems that increasingly the Minister of Energy and the IESO are moving away from the Historical Regulatory Energy Planning Process and oversight generally, and placing long term energy planning into the hands of elected officials whose mandate has a short shelf life of four years and who tend to have their eye on the next election rather than the long term needs of the Province and the region. It is the preference of the Energy Task Force that the IPSP, pursuant to the Electricity Act and regulations associated therewith, must have a formal review by the Ontario Energy Board which will allow the OEB to exercise its statutory powers to propose modifications to, and comment on, the proposed IPSP submitted by the IESO based on the input received by those affected by the contents of the IPSP.

Recommendation No.1

That the Minister of Energy issue a Supply Mix Directive to the IESO and encourage the IESO to issue a new IPSP (or updated IPSP) to allow the Ontario Energy Board and interested stakeholders to review and comment on the IPSP

The current rules of the Ontario Energy Board for Cost Awards explicitly exempt municipalities and groups of municipalities from seeking and obtaining reimbursement for their participation in OEB hearings on all matters under consideration by the Board.

While it is understandable that applications directly affecting a single municipality where the municipality is the 'owner' of the Local Distribution Company (LDC) should be exempt from the Cost Award process, where matters relating to long-term energy planning for a large geographic area are under consideration, municipalities and more importantly associations of municipalities should be eligible for full cost reimbursement from the OEB.

The current rules surrounding eligibility for cost awards of municipalities disproportionately affect rural and remote municipalities, who do not have the population or revenue to participate otherwise, and act as a barrier to those municipalities providing comment or submissions to the OEB in areas that have a profound and significant impact on said municipalities and their residents. It is also important to note that in the Northwest there are now only 4 municipally owned hydro utilities and that the majority of the interest by the municipal associations has been in the nature of broad policy initiatives rather that specific rate applications by an LDC.

Recommendation No. 2

That the Ministry of Energy direct the Ontario Energy Board modify their cost allocation rules to ensure that municipalities and other regional stakeholders are eligible for 100% cost awards to enable their participation in OEB matters generally, including but not limited to consultations or proceedings related to the IPSP and any review of the sub-regional and regional plans that may be considered by the OEB.

A long-term energy plan will obviously be a living document that must be allowed to respond to changes that will occur. The LTEP must include provisions for in-term deviations from the plan where new issues arise.

Recommendation No 3

That the Long Term Energy Plan include a provision for modifications to the plan during its term along with the mechanism for public consultation and that the Ministry take proactive steps to update the Supply Mix Directive and the IPSP.

Specifics of the Long-Term Energy Plan

The LTEP is meant to be designed to balance the following five principles: "*cost-effectiveness, reliability, clean energy, community engagement and an emphasis on conservation and demand management before building new generation*".

Economic Development

The Northwest has identified electrical generation, transmission and distribution as a key economic development tool for the region.

In many communities, there is not a high degree of reliability or power quality in the existing grid connection. The Municipalities of Ear Falls, Red Lake, Pickle Lake and the Municipality of Greenstone's communities of Beardmore, Geraldton, Longlac, Nakina and

Caramat are all served by 115 kv radial lines. At the same time, none of the communities mentioned have the electrical capacity for expansion, either for new industries or in many cases additional business or residential services.

Other communities in the Northwest do not have the capacity for expansion. The vast majority of the remote First Nation communities are restrained in their economic prospects by the existing diesel generation capacity installed to serve their businesses, industries and residences.

There are upwards of 25 mines that are working their way through to development and operation across the Northwest – all of whom will require electrical service. The Energy East pipeline conversion will require significant electrical energy should it be approved by the NEB. The Long Term Energy Plan must ensure that the identified growth opportunities across the northwest have sufficient and sustainable electrical power available within the next 7 years and that it be part of a long term, global infrastructure plan for the Northwest Region, along the lines of Quebec's Plan Nord that includes a full complement of other infrastructure and resource development factors. Connection cost for new industry (mines, mills, etc.) to the existing electrical grid should not become prohibitive, to the extent that it makes the development financially unfeasible for the proponent as the reality that the distance between population/industry clusters, long transmission/distribution lines run into remote regions are a fact of life. Up until this reality is realized by the Government of Ontario the Northwest's remote potential industrial developments will never be built.

The IESO has projected significant growth in residential, commercial and institutional demand should the mines become a reality.

The economic impact of the mines and the pipeline conversion along with all of the spin off aspects will lead to significant GDP increase, significant tax revenue and most importantly significant long term employment opportunities for the region.

Without a sustainable electrical generation, transmission and distribution network in the Northwest, economic development will not happen to the extent possible.

Recommendation No. 4

That the Principles used to complete the Long Term Energy Plan and the Supply Mix Directive (which forms the bases for the IPSP), be expanded by including *Economic Development* as the first and over-riding principle.

Cost Effectiveness

The principle of cost effectiveness has placed Northwestern Ontario at a significant disadvantage to the rest of Ontario. In southern, eastern and western Ontario expansion of the electrical grid is measured in metres. In Northwestern Ontario the expansion measurement is not just in kilometres but in a number of cases hundreds of kilometres. The Northern Ontario development will be in the 35 to 100 megawatt area for a single customer, and a new car plant may be 10 megawatts. Under the cost effectiveness principle, the proponent of a new connection to the grid is responsible for all of the costs associated with the new construction. At a time when investment dollars are scarce, it becomes a further challenge for mining interests to raise the capital for a new transmission line while at the same time seeking hundreds of millions for the development of a new mine.

It is important to note that formulae or definitions that make sense in the dense grid of Southern Ontario are simply not viable in a region of vast distances and a bulk transmission system that hugs the southern border of a region the size of France.

The Ontario Energy Board is partway through a policy consultation "aimed at ensuring the cost responsibility provisions for load customers in the OEB's Transmission System Code (TSC) and Distribution System Code (DSC) are aligned and facilitate regional planning and the implementation of regional infrastructure plans." (Regional Planning for Electricity Infrastructure: EB-2011-0043**)**

Northwestern Ontario's prime competitors for the provision of electricity are Manitoba and Minnesota. Both of these providers incorporate expansion costs into their rates charged to their customers. The same can be said for every other jurisdiction in Canada with the exception of Alberta which adopted the same regime as Ontario did – forcing new customers to pay for the cost of any expansion.

The Long Term Energy Plan must ensure that the expansion of the transmission and distribution system in the northwest is treated as a public good and the cost of said expansion is borne by all rate payers in Ontario. Connection costs to/for a new industry (mines, mills etc.) to the existing electrical grid should not become prohibitive, to the extent that it makes the development financially unfeasible for the proponent. Up until this reality is realized Northwestern Ontario's remote potential industrial developments will never be built.

Recommendation 5

That the Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP) include options for moving forward on how new expansion should be paid for and that those options include at the very least, the current regime and a regime that has the entire rate payer base contribute 100% of the cost of expansion of transmission facilities where there is a clear economic benefit to the Province as a whole.

Northwestern Ontario is unique in how electricity is delivered to communities and large consumers. Transmission lines of 115 KV are the prime method in the Northwest and a number of them serve to act as a means of distribution as well, even given the voltage level. Expansion or installation of these lines tends to fall to the local distribution company and are funded by the first large customer to connect. The cost of bulk transmission lines falls to the rate payers as a whole. The problem is that the definition distinguishing transmission from distribution is based on Voltage. This approach probably makes sense in the Southern Region where the distinction was developed but makes no sense in the Northwest Region of vast distances, small population and sparse power system infrastructure.

> **Recommendation 6**
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> **That the Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP) be issued to develop new terminology that distinguishes between short and long distance distribution systems so that each community in Ontario has the same level of service and the same jurisdictional requirements for connecting to the grid.**

Reliability

Transmission

The Transmission and Distribution system in Ontario is often referred to as a grid. It is helpful to understand the true meaning of that label:

> ***"a network of lines that cross each other to form a series of squares or rectangles."***

Southern Ontario's transmission system can accurately be described as a grid in that it really is a network of lines that cross each other to form a series of squares or rectangles. Also, the transmission system in the southern part of Northwestern Ontario fits the definition.

The mid range area of the Northwest does not. The Communities of Ear Falls, Red Lake, Pickle Lake, Sioux Lookout, Armstrong, and Greenstone are all served by 115 kv radial lines. There is no redundancy available to these communities should the existing radial line be disrupted. Disruption includes traffic accidents, forest fires, equipment failure and severe weather situations. Outages are measured in hours not minutes and have been known to last a number of days. These are also communities who rely on electricity for

home, business and institution heating as only Greenstone, Ear Falls and Red Lake have access to natural gas.

And of course there is no grid of any kind serving the remote First Nation communities north of the undertaking.

The various sub-regional planning processes within the Northwest have identified solutions to some of the communities listed. Their work should form the basis of the Long Term Energy Plan.

For a large part of Northwestern Ontario, reliability is of significant concern and the Long Term Energy Plan must include specific provisions to ensure that all of the communities served by a radial line must be treated the same way that the vast majority of the communities elsewhere in the Province are – by providing redundancy of some form.

> **Recommendation 7**
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> **That the Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP) address the inadequacy of the electrical service to Ear Falls, Red Lake, Pickle Lake, Sioux Lookout, Armstrong and Greenstone and shall include specific time lines and the recommended approach for providing redundancy service to those communities.**

Currently, a new mine or forest product processing facility, that requires significant electrical supply is responsible for the costs associated with providing that supply, either through the upgrading of the existing transmission/distribution system serving the community they will be located in or constructing new transmission/distribution facilities. The same rule applies to existing communities who are served by radial lines and/or who are at the maximum capacity of the transmission/distribution system. This requirement essentially constrains the community's ability to expand economically and socially.

> **Recommendation 8**
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> **That the Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP) addresses this inherent barrier to community expansion by removing the 'business case' requirement to trigger enhancement of the existing electrical service for all communities currently connected to the grid by a radial line.**

Natural Gas Distribution

There are a number of initiatives underway to assist in the expansion of natural gas service to rural and northern communities in Ontario. The Government itself has

implemented a grant and loan program to facilitate the expansion. The Northern Ontario Heritage Fund is contributing to a feasibility study into utilizing compressed natural gas to serve the communities of the North Shore of Lake Superior. The Ontario Energy Board is well into a consultation on Cost Recovery for Expansion of Natural Gas Services - EB-2016-0004.

The position of the NOACC Coalition[1] is that the entire rate payer structure should pay for any expansion of the delivery of natural gas to communities currently without the service (and including the expansion within municipalities who already have partial service).

It must ensure that natural gas must be delivered to all significant clusters of homes and businesses across the northwest at a cost no different than that paid for by others throughout the province

Recommendation 9

That the Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP) adopts the policy that all rate payers should be responsible for the construction and/or expansion of natural gas distribution facilities in Ontario.

Generation

Research by the Common Voice Northwest Energy Task Force has determined that the roll out of the upwards of 25 new mines, the rejuvenated forest processing sector, the implementation of the Energy East pipeline conversion, the connection of the remote First Nation communities to the grid and the subsequent growth in residential, business and institutional demands for electricity will require additional supply to the Northwest.

The Province has already recognized this scenario through the decision to enhance the east-west tie line from Wawa to Thunder Bay, the planning for the Northwest Bulk Transmission facility from Thunder Bay to Dryden, the conversion of the Atikokan Generating Station to biomass and the conversion of one unit of the Thunder Bay Generating Station to advanced biomass.

The existing contracts for the Atikokan and Thunder Bay Generating stations are inadequate in volume to allow those plants to operate at full capacity. The Energy Task Force has identified that both plants are required to operate at full capacity throughout the entire year once a number of additional mines come on stream.

[1] A coalition of Northwestern Ontario organization including the Northwestern Ontario Municipal Association (NOMA), Common Voice Northwest (CVNW) and the Northwestern Ontario Associated Chambers of Commerce (NOACC) which is led by NOACC.

Requiring full time operation will lead to the development of biomass and advance biomass manufacturing facilities in the northwest, utilizing low value fibre from the boreal forest.

The ETF analysis, confirmed in part by the IESO through their regional planning process, also indicates that there will be a need for distributed generation in key parts of the region.

Recommendation 10

The Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP) should address the need for the Atikokan and Thunder Bay Generating Stations to operate at full capacity and shall include direction to ensure that the contracts to operate should include the long term provision of biomass and advanced biomass.

Recommendation 11

The Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP) identify opportunities for distributed generation in the Northwest including the utilization of biomass and advanced biomass, along with the more traditional natural gas as the fuel.

Clean Energy

The Ontario Government has made a significant commitment to the development of new sources of renewable fuel for the generation of electricity. The conversion of the Atikokan Generating Station to utilize biomass and the conversion of one of the two units at the Thunder Bay Generating Station to utilize advance biomass has been a game changer for fueling electrical generation. The green house gas reduction (per KWh) of using biomass fuels relative to coal and gas is significant. Using biomass instead of coal results in a 90% reduction while biomass over gas sees an 80% reduction.

According to the Pembina Institute “Ontario Forests can sustainably produce 2 million tons per annum of biomass producing 3.4 billion kilowatt hours of electricity per year – sufficient to power approximately 285,000 homes. This would create 3,500 direct full time jobs and contribute approximately $590 million to Ontario’s GDP.

Recommendation 12

That the Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP) include policies on the utilization of low-grade and residual biomass for the generation of electricity.

Community Engagement

The decision by the Ontario Energy Board to require regional planning as a key part of the review of electrical supply is a direct result of the intervention of the Northwest during the first iteration of the Integrated Power System Planning process.

Subsequently, the OEB developed a process for regional planning as has the IESO. This new process provides the opportunity for consideration of regional and sub-regional needs early in the planning process ensuring a higher level of transparency and 'ownership' of the process. This process will continue to evolve as more regions complete the planning process and the results evaluated by the OEB.

It is essential that the OEB process form part of the Long Term Energy Plan.

Recommendation No. 13

That the Ministry of Energy confirm the requirement for regional planning and consultation, which requires the IESO to implement regional plans developed with local stakeholder involvement, in the Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP).

Conservation and Demand Management

While the requirement for conservation and demand management is a key province wide tool, it is no longer as applicable in Northwestern Ontario as it once was. It is important to note that the decline of the forest industry resulted in an overall reduction of approximately 500 MW of power demand/usage?. Ontario includes this figure in boasting about its overall reduction in power consumption without recognizing that it wasn't conservation but a significant economic decline.

The remaining forest processing operations have maximized their ability to implement demand management processes as well as the conversion of their equipment to be as energy efficient as current technology allows. The 25 new mines working towards operation will use the most efficient and lowest demand equipment available when they place their orders to suppliers. There is no further gain in the industrial sector in the Northwest.

- The following is an excerpt from the NOACC Coalition's response to an Interrogatory from Environmental Defence regarding the environmental implications of supplying natural gas to communities currently without that service.
- *"Our calculations indicate that fuel oil costs in the vicinity of $34.32 per Million btu (Greenstone price), electricity at $64.48 per Mbtu, and electricity for a geothermal heat pump rated at $21.93 per Mbtu while Natural Gas is at $2.35 per Mbtu. Fuel oil is 14 times more expensive and electricity is 27 times more expensive than natural gas to generate the same amount of heat in an area of the province where long periods of minus 20 or lower temperatures occur.*

The cost of living in the small Northwestern Ontario communities is very high and part of the reason for this is the high cost of heating with fuel oil or electricity. It is important to note that the Northwest does not have sufficient electrical power to meet the growing industrial needs of the region. Shifting home heating from electrical to natural gas will free up some of the electrical load that can then be made available to new mines and a resurgent forest industry. For example, connecting Red Lake to the Natural Gas system has/will shift 30 MW of consumption from electricity to natural gas in order to ensure that some of the new electrical load can be accommodated with the existing inadequate transmission system."

As noted above, any conservation in the residential or commercial sectors will free up electricity that will be quickly absorbed by new mines. While this is important in reducing the cost of new generation, it must be part of an overall strategy that meets the unique needs of Northwestern Ontario

Recommendation 14

That the Long Term Energy Plan and the Supply Mix Directive (which forms the basis for the IPSP) include a separate conservation and demand management policy for Northwestern Ontario that is based on consultation with stakeholders in the Northwest.

Conclusion

Northwestern Ontario is ready to grow. With 25 mines working their way through to development it is essential that the region have the infrastructure in place to ensure that this growth will occur. A key part of that infrastructure is electrical generation, transmission and distribution. Modern planning takes time. In many cases 7 years is required to see the switch turned on to energize a new mine or forest processing facility. The Northwest needs to know that the Ontario Government will put in place the policies that will give effect to the oft stated commitment that "the power will be there when you need it." The Long Term Energy Plan is the key tool that will guide energy development

for the next period of time. It is essential to the future of Northwestern Ontario that the Government of Ontario ‘gets it right.’

Yours truly

Copy to:

Michael Gravelle, MPP, Thunder Bay Superior North and Minister of Northern Development and Mines

Bill Mauro, MPP, Thunder Bay-Atikokan and Minister of Natural Resources and Forestry

Sarah Campbell, MPP, Kenora-Rainy River