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ENERGY TASK FORCE

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To Whom It May Concern:

Environmental Registry Posting: IESO Pathways to Decarbonization Study ERO 019-6647

The Common Voice Northwest Energy Task Force is pleased to provide our collective response to the above noted posting.

Expectations for early engagement and public or Indigenous consultations

Identification of opportunities for new generation and storage facilities should be conducted by the IESO through the regional planning process followed by a request for proposals to identify a proponent. The identification of an opportunity should be immediately followed by engagement with First Nations and other Indigenous interests in the area or watershed and be conducted by the IESO.

It is essential that engagement with First Nations and other Indigenous peoples be conducted by the IESO rather than a proponent who has a vested interest in the outcome.

Additional investment in clean energy resources

Rather than investments in Natural Gas, there is an opportunity to invest in biomass generation facilities in Ontario. Unfortunately, the Pathways to De-Carbonization significantly undervalues this opportunity in seeking solutions to the 88,000 MW target for 2050.

People living in the Boreal Forest region know there's already another viable source – one that not only produces green renewable energy but creates good paying long-term jobs in the smaller communities of the province.

It's forest biomass; consisting largely of the left-over wood from logging and sawmill operations.

A number of factors combine to make it an attractive way to produce future electricity across Ontario's north.

The first is supply: almost every community in Ontario's north is surrounded by the forest industry, making wood fiber a readily available resource. Furthermore, this supply has the potential to grow in the years to come. Today only 46% of the province's total allowable cut is being harvested each year, less than 0.5% of Ontario's overall public forest. Demand for sustainably sourced forest products is also at an all-time high and is expected to increase. The United Nations projects that global demand for forest products will grow by more than 30 percent by 2030. Increased forest production will mean an increase in the supply of forest biomass available to the communities and industries that can use it.

A second 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. New growth continuously draws carbon dioxide out of the atmosphere, however, at some point absorption stops and old forests start emitting carbon dioxide. By harvesting mature trees to produce a variety of forest products, carbon is stored for many decades rather than being released to the atmosphere, further enhancing efforts to mitigate climate change. 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.

Trees store carbon in the form of wood. Even when trees are harvested, carbon remains stored in the wood. Products created from the harvested wood like lumber, plywood, flooring and furniture lock away carbon in our homes and workplaces for decades. Even pulp, paper and other consumer products, which are manufactured largely from wood left over from the

production of lumber, store carbon through the end of their life cycle. According to the Ontario government, public forests stored an estimated 7.2 billion tonnes of carbon. However, wood products from Managed Forests store 25.5 million tonnes of carbon. This is comparable to the annual emissions from about 28.6 million passenger vehicles.

From an environmental perspective, according to the Pembina Institute, by itself the consuming of wood biomass when compared to natural gas produces 80% less emissions.

At the same time, within the Northwest there are three major radial lines that are at or near capacity with no indication of a willingness to either upgrade their capacity and service quality or to develop new distribution lines to serve the communities on the existing line. A logical option is the creation of distributed generation, fueled by wood biomass and located near to the communities and the present and future mining facilities that the radial lines serve.

With wood biomass being considered a green source of energy, and the likelihood of such facilities being available much sooner than any natural gas plant, this is a logical solution to the need for additional capacity without relying on a carbon-based form of energy.

This is a solution that will create significant employment and impact to the economy in the local area, both in the biomass generating facility and the forest and in-between.

In addition to the above, the OPG biomass generation station in Atikokan has the capacity to increase its output, provided that a method of just in time delivery can be developed in conjunction with the two existing biomass suppliers. The existing storage facilities limit the number of hours the AGS can operate continuously.

Over the longer term, the Northwest has an abundance of untapped hydro-electric power potential. Working in partnership with area First Nations, there is an opportunity to tap into this potential along the Watay Power transmission system. Not only will this provide employment and revenue to the First Nation proponent, but it will also create a redundancy in power supply along this lengthy forest fire prone radial line.

Greater investment in new non-emitting supply, including energy efficiency programs.

It will be a challenge to convince residential consumers to switch from the lower cost natural gas to the more expensive electricity regardless of the benefits to society through the reduction in the use of carbon-based fuels. The opportunity that exists is the enhancement of financial support for the retrofitting of all homes and businesses to significantly reduce their carbon footprint. Grants need to be increased to near 100% with the remainder paid back through the energy bills sent to each homeowner and business.

Potential for development of new hydroelectric generation

CVNW supports the recommendations of the Ontario Water Power Association when they wrote:

- "Owners of existing non-rate regulated waterpower facilities have contracts that expire within the next decade, compromising the ability to make the long-term sustaining capital investments required.
- Many of these same owners are expected to be the proponents of the expansions, upgrades and new developments necessary to help meet Ontario's emergent and enduring capacity and energy shortfalls.
- For more than two (2) years the OWA has worked with the Independent Electricity System Operator (IESO) to develop a Program to re-contract existing non-rate regulated hydroelectric facilities, in accordance with the Cabinet Directive of January 2022 and the Minister of Energy's letter to the IESO of October 2022.
- An estimated one hundred twenty (120) facilities will be eligible for inclusion in the Program. These perpetual assets represent ~800MW of reliable energy supply and provide important local electricity, socioeconomic, and water management benefits.
- There remain a small number of extremely important outstanding policy design issues that will require government decision and direction in the immediate future.
- With resolution of these key issues, Program implementation is expected by September 2023, securing these assets for another twenty (20) years "

As noted previously, identification of opportunities for new generation and storage facilities should be conducted by the IESO through the regional planning process with request for proposals system used to identify a proponent. The identification should be immediately followed by engagement with First Nations and other Indigenous interests in the area or watershed and be conducted by the IESO.

It is essential that engagement with First Nations and other Indigenous peoples be conducted by the IESO rather than a proponent who has a vested interest in the outcome.

As noted in the OWA submission

“OPG together with the OWA, engaged with Indigenous community representatives to better understand how communities themselves would define success in hydroelectric development in their regions. This included gathering insights from communities who have experience pursuing shared or full ownership in hydroelectric generating facilities, as well as those whose traditional territory encompasses some of the high potential opportunities reviewed in this report. Though every community has unique needs and perspectives, the Indigenous communities OPG was able to have initial conversations with were supportive of hydroelectric development, provided it is done responsibly, there is early, meaningful participation, and community benefits that further economic and social progress.

It will be important therefore that, particularly with respect to new hydro opportunities, the process(es) designed to recover pre-development costs not only include those costs associated with regulatory processes, but the provision of capacity for Indigenous (and other) communities to effectively participate as project proponents or partners.”

The IESO paper noted that:

“While the capital costs for hydroelectric generation may be higher than nuclear, wind, solar, and natural gas, do you support investing in large scale hydroelectric assets that may operate for over a hundred years?”

Investments in hydroelectric facilities will result in multiple decades of benefit, with the cost spread over those many years, with minimal ongoing

operating costs. As most identified sites in the Northwest are not the massive hydro-electric developments seen in Manitoba or Quebec their development costs are much less expensive than any new large scale nuclear.

Significant transmission capacity will be needed:

In the Northwest, with 38 major ore exploration projects underway, with only 5 in the vicinity of the Ring-of-Fire, significant transmission and distribution facilities will be required. Many are in a short distance from existing distribution or transmission infrastructure while some are hundreds of kilometres from the grid.

A key step that must be taken is that the cost of constructing the distribution lines to the customer's property line should be the sole responsibility of the rate payer rather than the mine's proponent. The region and the province as a whole will directly benefit from the investment, construction employment and ongoing operation of the successful mines. So too will the rate payer as the ongoing revenue will reimburse the system from the capital cost and operation of the line.

Where new lines are built to enhance existing radial services, planning should, where possible, choose a route that is separated from the existing line in order to minimize the potential that both services will be disrupted by forest fire.

It should also be recognized that there are clusters of exploration areas where some if not all will become viable mines and will require a connection to the provincial grid. Planning by the IESO, including the Environmental Assessment, should be commenced immediately to ensure a connection can be facilitated in a shorter time frame than currently is required.

In some cases, existing distribution infrastructure can easily be upgraded to provide the necessary power to new mines and expanding communities. This will assist in avoiding the addition of diesel or natural gas-powered generation at key locations (or their replacement).

For example, upgrading the A4L distribution circuit that supplies the Greenstone area to a NEW 230kv transmission line or building a new transmission line from the Marathon TS, will have many benefits. The 65

MW gas generator that has been installed to supply the new Gold Mine, will not be needed and can be sold.

The Greenstone communities will have added capacity to allow for the growth that will occur due to the new employment in the mine. The First Nation communities will also be able to expand. All this reduction in carbonized generation (approximately 100+ MW) can be achieved with zero generation increase alone.

Also, having new, upgraded transmission available will encourage the startup of biomass projects and increased security brought on by a new infrastructure and will open the door to the creation of new circuits to the east and south of Greenstone.

IESO's "no-regret" recommendations

The following is our response to the recommendations from the IESO :

The acceleration of current efforts to acquire new non-emitting supply, including the implementation of recent conservation and demand management directives.

<u>AGREED</u>

Beginning the planning and siting work for new nuclear, long-duration storage and waterpower facilities, as well as transmission infrastructure, to allow for faster implementation.

<u>AGREED, especially for waterpower facilities and transmission and distribution infrastructure however biomass generation facilities need to be one of the answers.</u>

Innovation and investment in low carbon fuels, such as clean hydrogen, as they are untested at scale. Further work and investment are needed to determine if they can replace some of the flexibility that natural gas currently provides the system.

<u>AGREED but add biomass to the solution mix.</u>
Galvanizing collaboration amongst stakeholders, including Indigenous communities.

AGREED but Indigenous stakeholders need to be engaged early even before other stakeholders.

Ensuring that regulatory, approval and permitting processes are ready to manage future investment at scale.

AGREED

Establishing an open, transparent and traceable process to measure progress and demonstrate the results of decisions and actions taken along the way.

AGREED

Respectfully submitted on behalf of the Common Voice Northwest Energy Task Force

Yours truly

Iain Angus, Chair, Common Voice Northwest Energy Task Force