

Enbridge feedback on the review of Ontario's long-term energy planning framework

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ERO Number: 019-3007
April 27, 2021

About Enbridge Inc.

Enbridge Inc. is a leading North American energy infrastructure company. We safely and reliably deliver the energy people need and want to fuel quality of life. Our core businesses include Liquids Pipelines, which transports approximately 25% of the crude oil produced in North America; Gas Transmission and Midstream, which transports about 19% percent of the natural gas consumed in the U.S.; Gas Distribution and Storage, which serves approximately 3.8 million retail customers in Ontario and Quebec; and Power Operations. Together, our renewable energy projects (either operating or under construction) have the capacity to generate 2,075 MW of net renewable power in North America and Europe.

Our regulated utility Enbridge Gas Inc. ("Enbridge Gas") is Canada's largest natural gas storage, transmission and distribution company based in Ontario with a more than 170-year history of providing safe and reliable service to customers and heats over 75 percent of Ontario homes.

Life takes energy and Enbridge exists to fuel people's quality of life. For more information, visit:
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Executive Summary

Enbridge appreciates the opportunity to comment on the Government of Ontario's (the government) review of the long-term energy planning (LTEP) framework with a view to implementing a new, more transparent, predictable, and reliable planning process.

Enbridge believes the current review of the LTEP framework presents an opportunity to ensure energy planning is done in a comprehensive manner, which includes all energy sources and keeps all relevant government policy objectives in mind. In order to meet the affordable, reliable and lower emissions energy needs of the future at the lowest cost, all energy sources must be factored into a holistic plan to demonstrate the complementary roles each energy source can play. It will be important that the new planning framework recognize the importance of decarbonizing the province's existing energy infrastructure in the most cost-effective manner rather than looking to solve decarbonization through electrification alone, which could have massive implications for consumer and system costs, and reliability. As such, the government should set policy objectives and then be agnostic as to the technologies and energy sources that can deliver on those goals cost-effectively. In addition to better integrating commonly used existing energy sources, this review presents an opportunity to better integrate and enable low carbon opportunities including renewables, power storage, geothermal, hydrogen and renewable natural gas (RNG), which in many instances leverage the existing natural gas system infrastructure.

Enbridge also believes that a new LTEP framework must find a way to balance the importance of agency-led planning with the fact that the government must ultimately be accountable for its agencies and for setting the direction of the government's overall energy (and environment, Indigenous, transportation, etc.) policies. Enbridge believes the government should continue setting policy objectives for the sector and its governing agencies while finding ways to ensure the implementation of these goals are truly being led by the independent agency planners. In its review of the role that the Independent Electricity System Operator (IESO) and the Ontario Energy Board (OEB) play in the planning and procurement process, the government must ensure any changes to these agencies add efficiencies, transparency and ultimately offer a clear framework to provide industry the certainty needed to facilitate investments.

Comprehensive and Integrated Energy Planning

Ontario needs a comprehensive energy plan that takes into consideration all energy sources as well as the full range of provincial objectives related to energy, transportation, climate change, economic development, reliability and affordability. For decades, Ontario's iterations of the LTEP process have been plans for the electricity sector and not for the energy sector as a whole. Electricity only makes up 17% of the energy used in Ontario whereas natural gas, gasoline, diesel, and other fuels make up 83% of Ontario's energy mix. Looking at peak energy, natural gas delivers ~85TW of energy on the coldest day which is three times as much peak energy as the ~27TW the electrical grid delivers on the hottest days. Natural gas also provides more than two times as much energy as electricity on the average day. While the 2017 LTEP process did adopt a fuels technical report to complement the IESO's planning outlook, the process has remained largely an electricity-focused plan for the province. In order to meet the affordable, reliable and lower emissions energy needs of the future at the lowest cost, all energy sources must be factored into a holistic plan to demonstrate the complementary roles that other energy sources can play in decarbonization and other policy objectives.

Currently, Ontario's energy planning process is siloed with policy discussions for individual energy sources happening in separate and distinct streams as opposed to in an integrated energy planning process. Looking at fully integrated planning will help ensure that existing assets are leveraged to deliver the lowest cost solutions. As such, the government should set energy policy objectives and be agnostic to the technologies and fuels that are able to deliver on those goals cost-effectively. In order to ensure a coordinated LTEP that effectively integrates all energy sources, a common metric for measuring multiple fuel types should be adopted to the process.

In developing an integrated energy planning process, the government and its agencies must also recognize the unique nature of the role that Enbridge Gas plays in Ontario's energy planning process. As a fully integrated utility with clear planning expertise and accountability equivalent to combining the IESO and Local Distribution Companies (LDCs), Enbridge Gas must both develop its own assumptions and ultimately own final decisions as the entity responsible for both costs and reliability of service. In order to achieve the goal of a fully integrated energy system, the government should formalize Enbridge Gas as the gas system planner. Achieving the goals of an integrated energy system in Ontario will be difficult, if not impossible, to fully achieve unless Enbridge Gas has a seat at both the system planning table with the IESO and the OEB as well as at the distribution table with LDCs.

Balancing Agency Led Planning with Government Accountability

Enbridge respects the objective of empowering independent-agency-led planning but believes that a new planning framework must find a way to balance agency-led planning with the fact that the government must ultimately be accountable for its agencies and for the province's overall energy policy. There is benefit to giving the energy sector and its governing agencies a signal on the government's policy objectives to determine where investments should be made while leaving implementation of these goals for the agencies to work out with industry and out of government's direct control. The IESO and OEB should receive direction from the Ministry of Energy, Northern Development and Mines (MENDM) to be able to effectively prioritize competing objectives and system priorities in order to develop their business plans accordingly. Industry also requires a clear signal on policy, transparency on decisions and regulatory certainty to make long term investments in Ontario's energy sector and this necessitates provincial accountability.

The history of Ontario's planning frameworks including the previous integrated power system plan (IPSP) and the current LTEP process involving implementation directives and plans offer many lessons to what could be enhanced in the current review. The IPSP was too rigid and long of a process to have ever been completed. The current LTEP framework is a good model in theory with government setting policy objectives for the sector and leaving the implementation of these objectives outside of the government's direct control, but in practice, implementation has involved government guidance on implementation throughout. The new planning framework should continue to have the government setting policy objectives for the sector and its governing agencies in order to determine where investments should be made, while finding a way to ensure the implementation of these goals are truly being led by the independent agency-led planners. This type of clarity is important for prospective investors, generators, other resource providers, and the government agencies to ensure they clearly understand and can deliver on the priorities of the government.

The government should be setting clear policy goals to guide the IESO and the OEB's decisions. As noted by the OEB's Guidehouse Report¹ "To the extent that the OEB is providing direction that may influence or be impacted by provincial environmental and policy goals, the OEB should clearly define their underlying assumptions regarding applicable provincial policy goals. For example, since future natural gas demand scenarios are likely to be impacted by energy and environmental policy, clearly defining underlying assumptions relating to provincial climate change policies and decarbonization targets will help to better inform gas network infrastructure decisions going forward." Where the OEB makes assumptions in its interpretation of these goals, the OEB must make a point of communicating them clearly to all stakeholders as opposed to simply reaching consensus with the government and IESO in isolation.

In absence of provincial policy objectives, there is also a risk that the IESO, the OEB and intervenors may instead rely upon Federal and Municipal policy direction. Given the provincial jurisdiction on electricity and natural gas, the province should ensure that local planning does not impose unreasonable incremental requirements on the grids. The provincial government should consider mandating that municipal energy

¹ Guidehouse Canada Ltd., Natural Gas Integrated Resource Planning in New York State and Ontario, page 5, Ontario Energy Board Staff Evidence for Enbridge Gas Inc. Integrated Resource Plan Proposal (EB-2020-0091),

decisions related to peak energy delivery for building heat and transportation infrastructure require mandatory stakeholder consultation with their local electric and gas utility and include a documented feasibility analysis so that the costs imposed on other energy ratepayers are minimized.

IESO and OEB's Role in Planning and Procurement

The government must ensure that changes made to both the OEB and the IESO add to regulatory efficiency, transparency and do not add new red tape or uncertainty to the LTEP process. Reducing regulatory barriers can serve as a low-cost approach for government to help accelerate job creation and private sector investment in energy infrastructure projects.

OEB

The review of the OEB's role in the planning process should aim to further streamline the regulatory process in order to stimulate sector investments. Examples of how this could be done include:

- The OEB could establish criteria where delegation of authority to staff and a streamlined regulatory process can be put into place for more mechanistic applications with limited customer impact. While OEB has the option of oral or written proceedings, these extensive regulatory processes should be reserved for proceedings where there are material impacts on customers.
- Enbridge is supportive of the Government's proposal to streamline reviews for smaller projects by updating the over 25-year-old Leave-To-Construct (LTC) financial threshold from \$2 million to at least \$10 million. Increasing the LTC thresholds would enable needed regulatory efficiency for smaller community expansion, pipeline or system reliability and transit projects while allowing the OEB to focus its oversight and resources on larger and more complex projects.
- Prioritizing intervenor participation by allowing the OEB to offer varying participation roles based on level of impact. In a typical rates proceeding there are ~15-20 intervenors; however, there can be significant overlap in intervenor interest. The OEB gives significant latitude to intervenors in terms of the scope of their participation which creates significant work for Utilities with limited incremental value where this overlap exists. The 2021 Demand Side Management (DSM) plan application serves as an example, as this simple application to extend the plan for one year to ensure continuity of programming had numerous registered intervenors whose costs were over \$113,000. The OEB currently awards ~ \$3 to 5 million per year in costs to intervenors and this could be reduced significantly with a review of this process.

Enbridge believes that while the OEB is the independent economic regulator, that it should not be charged with making long term system planning decisions in isolation. The OEB must rely on the expertise of the IESO and Enbridge Gas to inform its decisions and directives to ensure that its actions do not inadvertently impede efforts to integrate energy systems and achieve climate change policy goals.

Additional recommendations for changes to the OEB's role in planning would include the need for an improved stakeholder engagement mechanism. Enbridge recommends that the OEB establish a comprehensive energy stakeholder engagement process which include representatives from all energy sources, including natural gas, and helps to break energy planning discussion out of its current approach that is siloed by energy source. The current review of the LTEP process also offers an opportunity for the IESO and OEB to work together to reduce barriers that would enable greater penetration of distributed energy resources.

IESO

The province requires a power system planning process that puts system needs for energy and capacity and the protection of consumer interests for reliable and affordable power front and centre. Based on the IESO's projected supply needs, existing generators will need to be re-contracted in addition to new generation needing to be built. These supply needs must be procured in a reliable and cost-effective way. Enbridge recommends that Ontario's electricity procurement processes introduce competition and improve the design of contracts to balance the government's need for reliability and affordability with the

private sectors' need for certainty on investments. Achieving this balance is important as cost-effective long-term contracts can attract private investment and protect government and consumers from cost overruns. Long-term contracts ensure a mutual benefit by enabling generators to make substantial investments in new or repowered assets while ensuring governments have a reliable and affordable energy supply mix.

If the government is considering additional oversight for the IESO's processes, Enbridge believes it may be appropriate for the OEB to weigh in on whether a procurement mechanism is fair and reasonable, while leaving the planning decision on whether a procurement was necessary to the IESO. Enbridge recommends OEB oversight of IESO be limited to the upfront procurement process and not interfere with contracts after they are signed. By focusing on up-front oversight, the government can ensure the process protects consumers and prioritizes system need while recognizing generators' needs for longer term certainty. The government should ensure that any new processes are expeditious, cost-effective, evidence-based, transparent, and maintain certainty for generators. Additionally, oversight mechanisms should be developed transparently in consultation with industry.

Advancing Low-Cost Emission Reduction Solutions

It will be important that the new planning framework optimizes the use of all energy sources to drive the province's low carbon transition. Enbridge represents the interests of its customers and wants to ensure that future LTEP planning affords customers the opportunity to utilize their preferred energy source while still meeting provincial policy objectives. Optimizing both the natural gas and electricity systems and infrastructure will enable the province to achieve its decarbonization goals in a cost-effective manner. Examples of the opportunities afforded by planning for the complementary roles various energy sources can play in decarbonization include:

- Examining the roles that multiple fuel types can play in decarbonizing transportation as this will involve a balance between battery electric vehicles for light duty needs and alternative zero or low emissions solutions such as hydrogen fuel cells or CNG/RNG vehicles for high mileage and heavy-duty transportation needs, where time is of the essence.
- Scaling up blue and green hydrogen and RNG production and injection to decarbonize the natural gas grid is one of the most cost-effective means of decarbonizing Ontario's existing energy systems, while preserving resiliency. This leverages existing gas infrastructure that delivers as much peak energy as roughly equivalent to 30 nuclear reactors that would be needed to deliver that peak energy through electrification.
- Examining recent utility-led pilot programs such as the Power.House Hybrid Pilot Program that combines natural gas and electric LDCs helping customers improve energy reliability during outages, manage peak usage, better monitor energy use and reduce GHG emissions.
- Leveraging hybrid heating offers a resilient and affordable home heating solution by integrating the electrical and gas grids and offers a practical solution for beneficial electrification, by not increasing peak electrical demand while also reducing GHG emissions.
- Supporting opportunities for electric and natural gas coordination of integrated resource planning alternatives, such as non-wires and non-pipe solutions where there is overlap.
- Examining opportunities for collaborative energy efficiency programming between the IESO and Enbridge Gas to promote holistic energy management retrofits and practices.
- Producing green hydrogen from wind and solar assets that are frequently curtailed would maximize the benefits of clean and renewable energy while also producing hydrogen for public transportation, blending in the gas system, and other uses.
- Leveraging low cost natural gas and the existing distribution network to integrate natural gas heat pumps which reduce GHG emissions 20 - 40% currently, while also enabling these appliances to use RNG or hydrogen in the longer term.

These examples serve to demonstrate the importance of decarbonizing the province's existing energy infrastructure in the most cost-effective manner rather than looking to solve decarbonization through electrification alone. A comprehensive energy plan should consider the full energy mix and how it can be used to meet the province's climate objectives and consider these together with the anticipated implications for end use consumer costs and reliability.

The review of the LTEP framework must account not only for the sector's current business models but also for a future model that integrates an increasing number of low carbon solutions. Defining agency leads and process clarity for power storage, geothermal, blue and green hydrogen, and RNG can help establish a planning framework that better supports the energy transition. Currently these energy sources do not have a clear government and agency lead and as a result are not given equal footing as to their ability to deliver on Ontario's evolving energy needs.

In order to be able to deliver on the transition to a lower carbon future, government and the OEB must give utilities the regulatory flexibility to make greater investment in low carbon transition through the regulated portion of the business. If efficient and cost-effective integration of energy systems and avoidance of incremental infrastructure expansion are priorities, then the OEB should be allowed to approve investments in both gas and non-gas forms of integrated resource planning alternatives intended to achieve the same objectives. This would also allow utilities to benefit from having additional tools to respond to evolving customer preferences. These recommendations are important for the government to consider in their review of the planning process so as to ensure that all energy solutions are given the ability to compete and to holistically deliver on the province's energy needs cost-effectively.

Conclusion

As outlined in this submission, Enbridge believes the government should continue setting policy objectives for the sector and its governing agencies to determine where investments should be made while ensuring the implementation of these goals are out of government's direct control. Enbridge believes the LTEP should be conducted in a comprehensive manner, with all energy sources and all relevant policy objectives in mind to craft a holistic plan that delivers on the government's objectives at the lowest cost. In developing an integrated energy planning process, the government and its agencies must also recognize the unique nature of the role that Enbridge Gas plays in Ontario's energy planning process as the gas system planner. Achieving the goals of an integrated energy system in Ontario will be difficult to fully achieve unless Enbridge Gas has a seat at the system planning table with the IESO and the OEB. Enbridge appreciates the opportunity to work with the government on its review of the LTEP framework and welcomes the opportunity to further discuss this submission with the government.

Contact

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