Enbridge Feedback on the Integrated Energy Resource Plan

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About Enbridge Inc.

At Enbridge, we safely connect millions of people to the energy they rely on every day, fueling quality of life through our North American natural gas, oil or renewable power networks and our growing European offshore wind portfolio. Enbridge Gas, a subsidiary of Enbridge Inc., is North America's largest natural gas storage, transmission and distribution company based in Ontario, with more than 175 years of service to customers. The distribution business across North America provides safe, affordable, reliable energy to about 7 million homes, businesses and industries and is leading the transition to a clean energy future through emissions reduction targets and investments in innovative low-carbon energy solutions. We're investing in modern energy delivery infrastructure to sustain access to secure, affordable energy and building on two decades of experience in renewable energy to advance new technologies including wind and solar power, hydrogen, renewable natural gas and carbon capture and storage. We're committed to reducing the carbon footprint of the energy we deliver, and to achieving net zero greenhouse gas emissions in our operations by 2050. Headquartered in Calgary, Alberta, Enbridge's common shares trade under the symbol ENB on the Toronto (TSX) and New York (NYSE) stock exchanges.

To learn more, visit us at Enbridge.com.

Introduction

Enbridge Inc. (Enbridge) commends the Government of Ontario for its proactive approach in releasing its energy policy vision paper, “Ontario’s Affordable Energy Future: The Pressing Case for More Power,” and consulting on the development of an Integrated Energy Resource Plan (IERP). This initiative is critical in ensuring Ontario’s energy system remains affordable, reliable, resilient, and responsive to the growing demands of residential, commercial, and industrial customers. Enbridge welcomes the opportunity to provide feedback and remains committed to supporting Ontario’s growth.

Enbridge recognizes the importance of addressing climate change and is committed to being part of the solution. While maintaining significant investments in traditional oil and gas energy systems and renewable power, Enbridge is also a prominent North American project developer in the low-carbon sector. In addition to renewable power, our initiatives include ventures in low-carbon hydrogen; carbon capture, and storage (CCS); and renewable natural gas (RNG). As part of our broader sustainability goals, we aim to achieve net zero greenhouse gas (GHG) emissions in our operations by 2050 and reduce our emissions intensity by 35 percent by 2030.

Executive Summary

Natural gas is critical to supporting Ontario’s economy, powering residential, commercial, and industrial sectors, and driving economic competitiveness and growth. It delivers twice the energy and four times the average electric peak at a quarter of the cost. This affordable, reliable, and resilient energy source not only ensures the reliability of the electricity grid but also meets the increasing energy demands of Ontario’s energy-intensive, hard-to-abate manufacturing base and agriculture sector, the backbone of our economy. By ensuring Ontarians have the choice of affordable, reliable, and resilient natural gas, we can retain and attract billions of dollars-worth of investments and tens of thousands of jobs, aligning with the government’s pro-growth agenda.

Integrating natural gas and electricity planning, prioritizing infrastructure development, and ensuring affordability and reliability are critical to fostering cost-effective, sustainable growth. Collaboration between stakeholders—such as the Ontario Energy Board (OEB), the Independent Electricity System Operator (IESO), municipalities, and natural gas and electric utilities—will help meet demand forecasts and identify system expansion needs. Additionally, clear policy direction on the important role of natural gas, streamlined approval processes, and timely decisions are crucial to supporting timely infrastructure development. Additionally, enhancing Indigenous participation in planning and equity partnership in oil and natural gas infrastructure projects is vital for fostering inclusive growth.

Ontarians and Ontario businesses deserve an energy system that prioritizes affordability and reliability. The IERP must prioritize and deliver on these commitments first, and then balance in the pursuit of emissions reduction goals. This approach ensures a reliable, resilient, cost-effective system while safeguarding customer choice.

In order to ensure Ontarians have access to affordable, reliable energy throughout the energy evolution, the government should create clear regulatory frameworks, support innovation, and foster collaboration among industry stakeholders. By integrating viable and readily low carbon solutions, such as, energy efficiency, RNG, distributed energy resources (DERs), hybrid heating systems, and CCS, and advancing long-term technologies like low-carbon hydrogen, Ontario can meet growing energy demands reliably and cost-effectively while reducing emissions.

Recommendations

Planning for Growth:

- *Provide clear guidance on the role of natural gas in Ontario's future energy mix and the need for its expansion to enable investment certainty.*
- *Establish a transparent framework involving the OEB, IESO, LDCs, municipalities, and gas utilities, with standardized demand forecasts.*
- *Simplify permitting and approval processes to facilitate timely energy infrastructure development in high-growth regions.*
- *Direct the OEB to implement mechanisms ensuring capital cost recovery and competitive returns on and of energy investments.*
- *Streamline the OEB intervenor process by focusing interventions within its statutory mandate, tightening criteria for stakeholder participation, consolidating duplicative intervenor efforts, enforcing stricter timelines for motions, limiting the scope and budget of interrogatories, and requiring municipal support for interventions in model franchise agreement renewals to reduce delays and costs for ratepayers.*
- *Increase planning frequency in high-growth areas, integrate advanced tools like digital twins, and support LDC transitions to Distribution System Operator (DSO) models.*
- *Expand measures like the Aboriginal Loan Guarantee Program to enhance Indigenous involvement in oil and natural gas infrastructure projects and ensure improved returns.*

Affordable and Reliable Energy

- *Ensure affordability, reliability, and consumer choice are the focus of integrated energy resource planning.*
- *Expand net metering policies to include all types of energy generation (not just renewables), and support technologies like CHP, microCHP, and fuel cells to optimize energy use and increase resiliency at homes and businesses.*
- *Expedite clear regulations for interconnection and market participation, and address permitting processes for emerging technologies to reduce regulatory uncertainty in the integration of DERs.*
- *Facilitate collaboration between the OEB, IESO, local distribution companies, and industry stakeholders to optimize the integration of DERs, while considering Enbridge's role in these discussions.*
- *Support informed energy decisions by providing balanced, technology-agnostic information on energy options, promoting energy conservation programs, and encouraging investments in advanced metering infrastructure (AMI).*
- *Balance emissions reductions with system reliability and affordability by leveraging hybrid heating systems and supporting the growth of CCS and low-carbon hydrogen and RNG industries to strengthen energy security and attract investments and jobs.*
- *Develop a commercial regulatory framework for CCS and introduce carbon market mechanisms to incentivize CCS adoption and ensure fair crediting for emissions reductions.*

Becoming an Energy Superpower

- *Support the growth of Ontario as a clean energy exporter on the global stage.*
- *Introduce targeted incentives and tax credits for Ontario-based low-carbon hydrogen producers and technology manufacturers.*
- *Create a level playing field by addressing the competitiveness gap with the US, Quebec, Alberta, and British Columbia (BC) low-carbon hydrogen production.*

Questions

Overarching Question

1. **What policy options and actions should the government consider in the integrated energy resource plan to achieve Ontario's vision for meeting growing energy needs, keeping energy affordable and reliable, ensuring customer choice and positioning us to be an energy superpower?**

   To safeguard Ontarians' choice to access affordable, reliable, and resilient energy and position the province as an energy superpower, the government must **provide a clear and comprehensive policy direction that aligns with the communicated "all-of-the-above" approach**, leveraging a diverse mix of energy sources and technologies that address both immediate, affordable energy needs and long-term decarbonization objectives.

   A technology agnostic IERP is essential. The plan should **integrate both gas and electricity systems while enabling low-carbon opportunities** such as renewable electricity, hydrogen, battery storage, RNG, and CCS. Near-term solutions that reduce emissions and meet energy demand without overbuilding infrastructure or stranding assets should be prioritized, while also establishing the foundation for future technologies, such as low carbon hydrogen, to ensure long-term sustainability.

   Ontario residents, businesses, manufacturers, and agricultural sector continue to demand affordable, reliable, and resilient natural gas. The government should **provide clear policy direction to recognize the critical role of natural gas and its infrastructure in supporting Ontario's economic competitiveness and growth**. Minor amendments to section 2 of the Ontario Energy Board (OEB) Act could reinforce natural gas's role in the energy mix and ensure the OEB adheres to government policy when regulating natural gas utilities. This clarity would reduce regulatory uncertainty and attract long-term investment in energy infrastructure to continue to supply Ontarians with the energy they need.

   To ensure capital investment meets growing energy demand and positions Ontario to be an energy superpower, the government must **strengthen regulatory mechanisms for capital cost recovery**. The OEB should implement policies that guarantee fair returns on and returns of investments, providing the certainty needed to attract private capital. Moreover, the government must **streamline the OEB intervenor process by focusing interventions within its statutory mandate, tightening criteria for stakeholder participation, consolidating duplicative intervenor efforts, enforcing stricter timelines for motions, limiting the scope and budget of interrogatories, and requiring municipal support for interventions in model franchise agreement renewals to reduce delays and costs for ratepayers**. Without such measures, critical projects may be delayed or canceled, jeopardizing Ontario's energy goals. Legislative updates to the OEB Act could further clarify its role in supporting these investments.

   To ensure Ontario businesses and industries and agriculture sector have the energy they need to remain competitive, the investment climate for energy infrastructure needs to be

improved. Learning from successful practices in other jurisdictions, such as increased equity thickness in BC and Hydro Quebec's approach to market-based investments, Ontario can adopt measures to attract the necessary capital. **Directing the OEB to ensure competitive returns for energy investments** will support utilities in meeting the province's energy demands while fostering investor confidence.

Finally, alignment and transparency in energy planning are critical. The OEB should **streamline processes and harmonize metrics across natural gas and electricity utilities to evaluate cost-effectiveness, reliability, and system expansion consistently**. This would enable a clearer understanding of energy trade-offs and ensure optimized solutions that balance affordability, reliability, and emissions reduction. Enhanced transparency in pricing and harmonized evaluation frameworks would better inform stakeholders and promote integrated energy solutions.

Planning for Growth

2. Building on the recommendations of the EETP's final report, what actions should be prioritized to enhance planning across natural gas, electricity, and other fuels?

The Electrification and Energy Transition Panel's (EETP) final report outlined 29 recommendations to the government to support Ontario's energy evolution to a lower-carbon economy by 2050. Enbridge recommends prioritizing the following actions in the province's first IERP to enhance planning across natural gas, electricity, and other fuels:

- Provide clear policy direction on the role of natural gas in Ontario's future energy system.
- Working with the OEB, IESO, LDCs, municipalities and gas utilities, develop a formal and transparent co-ordination framework.
- Direct the OEB to review cost allocation and recovery policies for natural gas and electricity connections.
- Ensure that planning, permitting, and approvals processes are clear, predictable, effective, and efficient, leading to timely decisions and project development.

Leveraging existing processes

Enbridge has long advocated for better coordination between natural gas and electricity planning. Since the OEB's Regional Planning Process Review (RPPR) in 2021 and Enbridge's rebasing application in 2022, we have engaged with the IESO and electric LDCs to better understand each other's planning activities, in alignment with the Regional Planning Process Advisory Group's (RPPAG) recommendations to the OEB during the RPPR.[1]

To implement the EETP's recommendation on coordinated planning, Enbridge recommends leveraging existing processes, like the electricity Regional Planning Process ensuring coordination between electricity and gas system planning while speeding up the process and engaging both sectors more comprehensively. This will be important not only in the short term but also in the long term as electric LDCs may shift toward a DSO model and non-wires alternatives (NWAs) become more focused on distribution level needs as

[1] RPPAG Report to the OEB, Recommendations to Improve Ontario's Regional Planning Process, pg. 29, 2021 https://www.oeb.ca/sites/default/files/RPPAG-Report-to-the-OEB-20211220.pdf

opposed to transmission level needs, which are typically addressed through the regional planning process today.

The existing energy planning processes for electricity and natural gas in Ontario are robust. Any new process should address challenges of integrated planning without diminishing the strengths of these established processes. In the short term, coordination should focus on building heat (i.e. agreeing on assumptions, or approaches for demand forecast development).

The RPPAG in its 2021 report to the OEB, as part of the RPPR, recommended that Enbridge participate in the existing regional planning process,[2] not as a typical stakeholder but instead on a targeted basis, with meetings between the IESO and Enbridge Gas to improve understanding of each other's planning processes, and through meeting with the applicable regional Technical Working Group (TWG) where an Integrated Regional Resource Plan (IRRP), is required. While the OEB implemented many of these recommendations in their final RPPR deliverable,[3] they did not implement changes (i.e. regulatory obligations) to ensure this level of coordination.

In the time since the completion of the RPPR, areas of rapid demand growth have developed in the province and Enbridge is pursuing items that the RPPAG indicated would warrant further coordination between electricity and gas system planning. The RPPAG stated that:

> In the future, the RPPAG believes further coordination between the two planning processes may be required if one of more of the following occur:
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> - Enbridge were to receive approval from the OEB to invest in electricity NWA solutions – like electricity LDCs – in a future Integrated Resource Planning (IRP) generation. The RPPAG believes it is the nature of the investment that matters (i.e., both electricity related) – not the nature of the utility.
> - Enbridge increases its use of electricity-based solutions (such as electric heat pumps) to address constraints on their system.
> - Policy direction is received requiring the integration of gas and electricity needs when assessing energy options, which could be an outcome of the government's work to update Ontario's long-term energy planning (LTEP) framework.[4]

Enbridge is pursuing several of the above noted activities, including:

- IRP pilots deploying electricity alternatives,
- Electric measures are offered through DSM programming (i.e. incentives for electric heat pumps) and Enbridge was the delivery agent for the Natural Resources Canada's Greener Homes grant program in Ontario, which had a large uptake of electric heat pumps.

[2]Ibid pg. 28
[3] OEB Response to RPPAG Recommendations to Improve the Regional Planning Process, 2022, https://www.oeb.ca/sites/default/files/OEBLtr-RPPAG-Response-to-Recommendations-20220428.pdf
[4] RPPAG Report to the OEB, Recommendations to Improve Ontario's Regional Planning Process, pg. 29, 2021 https://www.oeb.ca/sites/default/files/RPPAG-Report-to-the-OEB-20211220.pdf

- Gas system pruning pilots will be developed and implemented in 2026, as per the Rebasing Phase 2 Settlement Agreement, where existing gas customer demands could be shifted entirely to the electricity system in a particular area.

The Need for Regulatory and Planning Process Updates

In addition, the government's energy policy vision paper, *Ontario's Affordable Energy Future: The Pressing Case for More Power*, and this consultation itself are clear indications that the coordination of gas and electricity planning is required to deliver an IERP, and the future clean energy economy envisioned by the government. Enbridge recommends that the government **directs the OEB to update its regulatory instruments to include obligations ensuring coordination between electricity and natural gas planning.** As proposed by the RPPAG, "this can be done by taking a similar approach to the current IRRP requirements in relation to the IESO, LDCs, and transmitters in the regional planning process. For example, developing a license condition under IESO's Regional Planning Obligations to work in consultation with Enbridge. Since Enbridge is not licensed by the OEB, working in consultation with the IESO could be required through a condition of approval of a future IRP application.[5]

The electricity regional planning process was developed and has been leveraged during a time of flat or declining electricity demand. Considering the province's housing target of 1.5 million new homes by 2031 and the IESO forecasted 75% increase in electricity demand by 2050, energy demand is increasing for both natural gas and electricity. In recognition of the energy planning dynamism, there is a need for a shift away from the current 5-year cycle for regional planning to a more frequent cycle, particularly in areas of high growth (i.e., Windsor Essex) where almost continuous planning has been required. Key to the success of increasing the frequency of the planning cycle with consideration of the recommendation above is standardization of demand forecasts developed by LDCs, transmitters, and the IESO, the development of common assumptions used for energy planning (natural gas and electricity), and the use of new tools to expedite iteration on demand forecasts under different scenarios.

Coordinated Assumptions and Demand Forecasts

In the near term there is a need for LDCs and Enbridge to work together and coordinate how smart thermostats, heat pumps, and integrated controls for the heat pumps and furnaces are incented. This will reduce confusion in the marketplace and improve program delivery considering Enbridge and IESO's "one-window" coordination. Also, since heat pumps with smart controls (hybrid heating systems) can be considered a type of DER, both sectors having knowledge of where they are operating at the distribution level provides insight into the proliferation of a DER that can operate as an electric peak demand management tool, helping to inform long term forecasting and capital plans for both sectors.

There may also be more onus placed on the electric LDC and Enbridge in the context of regional planning or local distribution planning as the electricity sector evolves with the continued integration of DERs and with electric LDCs potentially moving toward a DSO model. Regional planning will need to address distribution needs and alternatives, transmission system needs, and local distribution level needs. This would likely shift

[5] Ibid pg. 29,30. This was recommended by the RPPAG to the OEB, should the OEB want to ensure enhanced coordination between gas and electricity sector planning.

complexity downward, making the standardization of demand forecasting and the use of common planning assumptions between the gas and electricity systems even more critical.

Building on the RPPAG's Load Forecast Guidelines, further standardization in developing electricity demand forecasts must be considered in the face of the potential rapid pace of energy demand growth in Ontario. Enbridge recommends **a phased approach that incorporates new tools (i.e., distribution system digital twins) to standardize and rapidly iterate electric demand forecasting** under a range of different scenarios grounded in common assumptions agreed to by the electricity and gas system planners.

Enbridge recommends that the government **direct the OEB to require gas utilities, electric transmitters, LDCs, and the IESO to develop over time a unified set of planning assumptions, and in the near term to share current assumptions and the resultant demand forecasts,** in accordance with policy**.** This will help identify near term energy needs and minimize overlap in demand between both systems.

The exercise should be iterative to better reflect consumer sentiment, government policy, or other factors influencing how energy demand manifests on either system in the longer term. The demand forecasts should be developed with multiple scenarios and leverage, where appropriate, probabilistic analysis, with uncertainty explored through variation of the most impactful variables. The variables selected for these forecasts should be carefully considered to ensure the comparability and usefulness of the scenarios to understand a range of potential outcomes, their commonalities, and their differences.

Enbridge recommends that **the OEB updates filing guidelines to require the electric LDCs and gas utilities to file the results of regional planning activities, including demand forecasts and assumptions, in their Leave to Construct (LTC) and rate rebasing applications.** To enable this, the OEB should convene a working group, including the IESO, Enbridge, and some of the larger LDCs, to develop and agree on filing requirements.

Once implemented, the OEB's regulatory processes can be streamlined, as the need to assess demand or necessity for specific projects will be eliminated, having already been addressed through regional planning activities. This will lead to a more effective and efficient regulatory process, leading to timely decisions and reducing costs of the regulatory process for rate payers.

Harmonizing Economic Regulatory Approaches

To ensure the objectives of an IERP are met, the government should **amplify the OEB's role as an economic regulator and streamline processes and requirements across natural gas and electricity for greater transparency and ensure timely decisions.** Currently, natural gas and electric LDCs each have their own OEB-approved methods for evaluating cost-effectiveness, reliability, and the expansion of distribution system to support economic growth. To optimize energy solutions, common evaluation measures are necessary to enable energy trade-offs and full transparency of impacts to all stakeholders and ratepayers in terms of affordability, reliability, and responsiveness to growing demands of customers. The OEB is in a unique position to facilitate this through its existing statutory powers.

- **Affordability:** The OEB can require clearer price signals across the natural gas and electricity markets to enable transparency of cost impacts as fuel trade-offs are evaluated, and of their respective impact to stakeholder groups. A more comprehensive

understanding of the costs borne by ratepayers, taxpayers, and shareholders is required for optimized decision making.

- **Reliability:** The OEB can guide the development of reliability indicators or benchmarks across natural gas and electric LDCs as they work to integrate energy solutions, recognizing the variability that may exist across low-carbon alternatives and fuel sources of electricity generation.
- **Responsiveness:** The OEB can facilitate the harmonization of project feasibility parameters and assessments to streamline and enable like-for-like comparisons across pipe and non-pipe, wires and non-wires, and low-carbon solutions, as well as any combinations of aforementioned solutions. This would support an efficient and transparent process to enable identification and implementation of integrated, optimized solutions in a timely manner.
- **Cost:** The OEB has approved an IRP Framework to evaluate alternatives to natural gas facility infrastructure using a Distributed Cash Flow Plus (DCF+) methodology that is currently being refined with stakeholder input. Separate consultations are underway for a similar framework in the electricity sector. There is an opportunity to improve the blending and harmonization of these methods so as to provide broader consideration of integrated energy solutions and greater transparency to the costs and benefits for different stakeholder groups involved.

3. **The government's priority is to ensure Ontario has the energy resources it needs to support growth. Are there opportunities to enhance the province's approach to procuring electricity generation supply to better serve this priority?**

   Ontario's electricity supply planning and competitive procurement processes are transparent for short-lead time sources (i.e. natural gas, wind, and solar). The recent Long-Term 2 (LT2) procurement initiative is a good example that aims to enhance electricity generation from a variety of shorter-lead time sources. With scenario planning taking a longer view and potentially identifying more of these longer-lead time assets as being required, a clear planning process is likely needed for these long-lead time assets to ensure proper timelines. This is crucial for forecasting natural gas volumes and the infrastructure needed to support Ontario's energy future.

   To increase market certainty and informed bidding in competitive procurements, it is crucial for the IESO and natural gas providers to collaborate before procurements are issued to the market. This collaboration should encompass understanding the energy providers' project processes, contracting practices, understanding of risks, and commercial requirements. Additionally, any necessary infrastructure expansion requires increased coordination in planning and project execution, as well as alignment and understanding of commercial terms and parameters to provide the market with all relevant information for informed bidding, and award successful procurements.

4. **What actions should government consider to promote greater access to electricity and accelerate grid-connections that will support economic growth, connecting new homes, and electrifying transportation and heating?**

   The only way to ensure the government's 1.5 million homes by 2031 target and achieves its pro-growth agenda is by ensuring that the electricity and natural gas providers can build energy infrastructure in high-growth areas promptly, with appropriate assurances for capital cost recovery to incentivize and derisk investments.

This uncertainty can lead to inefficient incremental buildouts, poor coordination with other utilities and services, and delays in infrastructure readiness, hindering efforts to meet Ontario's growing energy demands. ***Adopting integrated energy planning that aligns with agreed upon forecasted demand for both electricity and natural gas providers in high-growth areas would encourage investments in the infrastructure needed to address housing affordability and attract industries.***

Additionally, as mentioned above, government should strengthen regulatory mechanisms for capital cost recovery and direct the OEB to ensure returns for energy investments are competitive not only within Ontario but across the broader North American context. Ontario is competing for capital with jurisdictions across North America, such as BC, Utah, and North Carolina, and attracting investment requires offering returns that reflect this wider competitive landscape.

5. **As the need for new transmission infrastructure continues to grow, what steps can government take to ensure that transmitters have the certainty they require to move forward with development work as soon as possible, while also ensuring that competitive pressures keep costs as low as possible?**

   To meet Ontarians' energy demand, drive economic growth, and enhance energy security, the government must ensure clear, predictable regulatory frameworks, aligned with long-term forecasts, supporting efficient infrastructure expansion. Regulatory certainty for energy infrastructure project proponents ensures that infrastructure is built in time to meet Ontario residents, businesses, industries, and agricultural sector's projected demand. By identifying potential expansion locations and aligning regulatory processes with forecasted growth, governments can help natural gas transmitters plan and execute projects with confidence, minimizing delays, reducing costs for ratepayers, and ensuring infrastructure is in place when Ontarians and industries need it.

6. **What policy guidance should the government provide to the Ontario Energy Board (OEB) with respect to the long-term role of natural gas in Ontario's economy and opportunities for low-carbon alternatives in the gas system?**

   To ensure Ontario residents, businesses, industries, and agricultural sector have the choice to access the natural gas infrastructure while laying the building blocks for low-carbon alternatives, the government should:

   a. **Policy Clarity:** Provide clarity to investors and regulators on the **unequivocal need for natural gas during the energy evolution, and the continued importance of gas infrastructure and the need for its expansion in Ontario.** This is needed urgently to reduce the regulatory uncertainty that exists without clear government policy direction. The government could also include minor changes to section 2 of the OEB Act in the proposed legislation to clarify the important role of natural gas in Ontario's diverse energy mix and the need for the OEB to follow and implement government policy in its regulation of natural gas utilities.

   b. **Capital:** Without strong government direction to the OEB or some other **mechanism to enable cost recovery of prudent investments (returns on and returns of investment)**, Enbridge may not be able to attract investment to its Ontario gas distribution business. As a consequence, Enbridge may have to start deferring at best, or cancelling at worst, projects that businesses and communities are depending on. The government should send a clear signal that for existing and continued capital investments in energy infrastructure, which are required to meet government policy goals and/or the needs of customers, the OEB shall ensure cost recovery mechanisms

are in place that provide regulatory certainty for recovery of and fair returns on such capital. This clarification could be included in minor changes to Section 2 of the OEB Act as noted above and it could be added to Section 96.2.

c. **Investment Climate: Address the lack of competitiveness impacting critical energy investments in Ontario.** Addressing the overall investment climate for energy infrastructure is a major issue for electricity and gas utilities alike. Ontario electric LDCs already enjoy greater equity thickness than Enbridge, but even they are concerned about returns on the capital required to meet Ontario's energy needs. Enbridge needs to provide sufficiently competitive returns if it is to compete for necessary energy investments.

   As examples from other jurisdictions that are tackling the need for significant investments, the Government of BC has increased the equity thickness for Fortis, and Hydro Quebec is looking to financial markets to attract the capital needed to fund priority investments in energy infrastructure, besides the more attractive investment environments in other North American jurisdictions such as Utah and North Carolina.

   The government's action can be broadly scoped to provide the appropriate guidance to the OEB (e.g., tied to the above-noted direction to provide certainty on capital recovery) and serve to benefit Ontario's entire energy sector.

7. How can the government best support Indigenous leadership and participation in energy planning and projects?

Meaningful Indigenous consultation and economic reconciliation is essential for a successful energy sector evolution. Enbridge supports the government's inclusion of early engagement in project planning, consultation, and support for Indigenous leadership and participation in the energy sector in the IERP goals and objectives. Our experience has demonstrated that positive relationships with Indigenous communities, rooted in mutual respect and focused on achieving common goals, strengthen our projects and yield constructive outcomes for all Ontarians. Enbridge advocates for **including specific goals in the IERP that promote Indigenous direct equity participation, supply chain involvement, and meaningful consultation during asset development.**

Engaging Indigenous communities is fundamental to transparent and effective IERP development and enables better understanding and incorporation of regional energy needs. Stakeholder engagement ensures system planners have a better understanding of energy demands and best positioned to leverage both the gas and electricity systems.

Additionally, a key barrier for Indigenous groups seeking to participate as project partners in large-scale natural gas energy projects is access to capital. Many Indigenous communities are eager to engage in these initiatives but face challenges in securing competitive capital rates, which hinders their ability to contribute effectively. To ensure Indigenous communities have the tools they need to participate as equity partners in oil and gas infrastructure projects and take a step forward towards economic reconciliation, the government must **expand the provincial Aboriginal Loan Guarantee Program to include oil and natural gas infrastructure projects and ensure improved returns.** This would provide Indigenous groups with the financial support necessary to become active, equitable partners in energy development, fostering economic growth, job creation, and capacity building within their communities. Additionally, improved returns would enable Indigenous groups to manage debt more effectively and distribute benefits through dividends or other mechanisms they

choose. Expanding the Aboriginal Loan Guarantee Program would help ensure that Indigenous communities can fully participate in Ontario's energy future.

8. **How can provincial planning processes be enhanced to support high growth regions, ensure greater coordination between energy resources, and better integrate municipal, distributor and regional planning processes?**

   As Ontarians demand more housing and the government attracts more investments to Ontario, it is essential to **prioritize collaboration between planning authorities and energy providers**, ensuring the timely development of energy infrastructure to meet increasing demands. The Provincial Planning Statement (PPS) should explicitly recognize the importance of integrating energy providers in regional planning frameworks. This coordination is critical to delivering affordable, reliable, and resilient energy while supporting Ontario's ambitious housing target of 1.5 million new homes by 2031 and addressing the Independent Electricity System Operator's (IESO) forecast of a 75% increase in electricity demand by 2050.

   Additionally, the electricity regional planning process, originally designed during a period of flat or declining electricity demand, must evolve to reflect the dynamic energy landscape driven by rapid growth in housing, industry, and commercial activity. Given the growth rates vary across the province, regional planning should require status checks to identify regions needing more frequent planning cycles. Energy planning must shift away from the current 5-year cycle to a more frequent approach, particularly in high-growth areas like Windsor-Essex, where near-continuous planning has already become necessary. Increasing the frequency of the planning cycle will require the standardization of demand forecasts developed by LDCs, transmitters, and the IESO. Additionally, common assumptions for both natural gas and electricity planning must be established, along with the integration of new tools that enable rapid iteration of demand forecasts under varying growth scenarios.

   Moreover, to ensures Ontario residents, businesses, industries, and agricultural sector have the energy they need, it is essential to ensure municipal energy plans are aligned with the government's broader energy objectives, ensuring a technology- and fuel-agnostic approach to energy planning that prioritizes affordability, reliability, resiliency, and consumer choice.

   Finally, synchronizing energy infrastructure planning with municipal development timelines is essential to avoid delays, maintain affordability, and support economic growth. Streamlining regulatory and approval processes will further enhance the ability to deliver critical infrastructure on time. By embedding these principles in the PPS and adapting the electricity regional planning process to the realities of dynamic energy demand, the government can support high-growth regions, ensure effective energy planning, and meet Ontario's broader growth and emissions reduction objectives.

9. **What cooperation opportunities exist across other jurisdictions to support energy trade, construction of transmission infrastructure (ex. pipelines and interties), and transportation electrification?**

   Cooperation across jurisdictions is essential to supporting energy trade, expanding critical infrastructure, and enabling the transition to low-carbon energy systems. Enbridge's Line 5 pipeline exemplifies the importance of integrated energy networks. Continuing the "Team Canada" approach is critical to ensuring that Line 5 remains a cornerstone of energy security and economic stability for Ontario, Quebec, and Canada as a whole, as well as several other jurisdictions in the US. This collaborative effort highlights the importance of protecting vital infrastructure that delivers over half of Ontario's and two-thirds of Quebec's crude oil needs,

supports thousands of jobs, and sustains key industries, including refining, petrochemicals, and regional trade. Maintaining Line 5 is essential not only for meeting today's energy demands but also for minimizing environmental risks by avoiding reliance on less efficient transportation methods like rail or trucking.

Looking forward, the same spirit of cooperation must extend to building the infrastructure necessary for the low-carbon economy. Coordinated efforts among jurisdictions can support the development of pipelines for hydrogen and RNG, enabling large-scale trade and decarbonization of industries. Similarly, collaboration is essential for creating CO_2 pipeline networks that connect industrial emitters to storage facilities, driving CCS adoption. By prioritizing cross-jurisdictional partnerships, Ontario can strengthen its energy systems today while building the foundations for a sustainable, low-carbon future.

10. **What types of technical information and forecasts would best support sector participants and energy consumers as the system is built out for growth and the economy increasingly electrifies?**

To enable an energy system that is technology and fuel agnostic, planning for system growth must be grounded in a wide variety of technical information, forecasts and modeling, and clarity on the province's decarbonization objectives beyond 2030.

Understanding the gaps in energy infrastructure will be critical to planning the evolving energy system. As a first step towards integrated energy resource planning, **Enbridge recommends overlaying the gas distribution and transmission systems onto the IESO's regional planning areas, Hydro One's asset map, and the electric LDCs distribution systems.**

Modelling should leverage both the gas and electric distribution and transmission systems to meet energy demands across all sectors, evaluate cost at both the system and end-user level, as well as considering the reliability and resiliency benefits and risk of stranded assets. Near-term decarbonization opportunities, such as energy efficiency, hybrid heating, RNG, DERs, and longer-term solutions, like hydrogen, small modular reactors, and thermal energy networks must be assessed to ensure scenarios remain technology agnostic and the energy system is optimized to meet growing demand.

Enbridge Gas recommends developing a common set of planning assumptions, with processes to update these assumptions over time to better reflect how energy evolution is occurring. These assumptions should be used by the IESO, Enbridge, electric LDCs, and transmitters in planning, regulatory applications, and energy conservation program development and delivery. In the short-term, **Enbridge recommends the government direct the OEB to require these assumptions be used in regional integrated energy planning**, in accordance with policy, including by electricity and natural gas distributors and transmitters (i.e., in the development of the demand forecasts).

For example, the IESO and Enbridge should align on technology assumptions for heat pumps (e.g., performance, adoption rates, and costs), and HydroOne and Enbridge should align on weather correction methodologies to manage energy resources effectively during extreme weather. Regional assumptions for electric vehicles (e.g., demand and penetration rates) should be determined by the IESO and electric LDCs. Similarly, alignment between IESO and Enbridge is needed for hydrogen and RNG supply forecasts and economic analyses to guide long-term market targets. Forecasts for thermal energy networks, energy prices, subsidies, government policies, and consumer behavior should also be standardized for accurate demand forecasting. Additionally, coordinated assumptions around public grid

emissions, non-emitting electricity resources (e.g., solar), and the impacts of fuel switching on the provincial emissions profile are critical for understanding future energy landscapes and supporting long-term investments.

Affordable and Reliable Energy

11. What further steps should the government take to enable households and businesses to manage and make informed decisions about their energy use?

Households and businesses need information about the options available to them in order to make informed decisions about their energy use. Enbridge recommends that the government provides a balanced and technology agnostic overview of choices available to allow customers to choose the options that best meet their requirements and reflect their priorities, such as affordability, reliability, resiliency, sustainability, and customer choice. The government should also continue to encourage energy conservation programs by providing links to where households and businesses can access these programs.

Additionally, Enbridge believes that the government should support funding for AMI to enable all utilities to help households and businesses make informed decisions about their energy use.

The greater adoption of digitalization across energy networks represents one of the cornerstones of the energy transition. AMI is one of the flagship investments that any utility can make in digitalization and one of the primary enablers of a more digitalized and integrated grid.

The adoption of AMI typically drives an overall reduction in the volume of energy being consumed, as well as greater visibility of consumption patterns and trends, from a pipeline network standpoint this can support a range of benefits including:

- Better demand planning and wholesale energy strategy
- More accurate pipeline network planning and increase ability to right size the assets
- More targeted application of non-pipe solutions in supporting Integrated Resource Planning for the province
- Supporting adoption of RNG and Hydrogen injection into the pipeline network
- Provide customers access to their detailed gas consumption data.

12. What actions could the government consider to ensure the electricity system supports customers who choose to switch to an electric vehicle?

Requiring multi-residential buildings to provide a basic level of electric vehicle charging infrastructure in their parking areas would go a long way to ensuring these networks are built out and enable adoption for this market segment. The initial investment and or selection of a service provider is often the most challenging first step, and mandating this be in place by a set date would ensure the adoption curve is accelerated.

13. What actions should government consider that would empower customers to install innovative technologies to generate or store energy on-site to reduce costs and improve resiliency? AND What specific actions could position the integrated energy resource plan to best leverage distributed energy resources (DER) that enhance local and province wide grids to support energy system needs reliably and at the lowest cost?

On-site electricity generation and storage at industrial, commercial, and residential facilities can play a significant role in meeting Ontario's growing demand for electricity through the expansion of current net metering policies. Currently, Enbridge's understanding is that most industrial and commercial-scale combined heat and power (CHP) are installed behind the meter and are not allowed to feed to the grid. Furthermore, for residential facilities, only renewable power is eligible for net metering credits in Ontario under O.Reg 541/05. Expanding the regulation to allow for net metering regardless of source would foster the development of energy generation and storage in distributed forms at customer's homes and businesses. Natural gas- and potentially hydrogen-fueled distributed energy resources (DER) such as CHP, microCHP units, and fuel cell technologies can be resilient in power outages and dispatchable. Both CHP and fuel cell technologies have improved efficiencies when useful heat is produced and either used or stored. These technologies, working in conjunction with electric batteries and thermal storage, can bridge periods of changing demand while continuing to operate, providing power to the grid.

Additionally, directing the IESO to offer revenue or other incentive programs to support DER would allow service providers to build portfolios of customers and equipment that could benefit both local grids and overall demand.

14. What policy or regulatory changes should government consider to address financial risks and support adoption of DER in the long-term?

Predictable and timely regulatory, approval, and permitting processes will be essential to support new investments in clean generation, transmission, and related energy infrastructure like DERs. These processes include interconnection studies and processes and clear environmental permitting frameworks for newer technologies like power storage, and hydrogen.

Currently, there are no market rules, permitting guidelines, or established approval processes for battery power storage, and hydrogen production, all of which are imperative to resilient DER development. This creates regulatory and economic uncertainty for developers, for which risk must be priced into contracts. Similarly, since the repeal of the *Green Energy Act*, there has been uncertainty on several permitting and land access issues related to wind and solar development. Enbridge understands that the IESO and the Minister of Environment, Conservation, and Parks are working to address these regulatory gaps and look forward to participating in those regulatory processes. Enbridge recommends prioritizing the finalization of these regulations promptly within the coming months.

A bidirectional electricity grid will become increasingly important to facilitate efficient electrification. DERs, power storage, and hydrogen will allow Ontario to efficiently use excess supply from installed generation and shape load where possible. Clear regulations for interconnection and rules for participation in the electricity market will help free up investment in non-wires alternatives to optimize the grid better. Delays on these frameworks and Market Renewal have maintained unnecessary risk levels in recent years, and we encourage concluding these outstanding processes.

15. What actions can the government take to enhance collaboration between the OEB, the IESO, local distribution companies, industry stakeholders, and local communities to support the investment and integration of DER?

Identify case studies where DER would be the most effective option to avoid complex distribution system investments. Enable LDCs to work with potential service providers to

create revenue or incentive programs to improve the economics of DER technology investments.

16. What further actions could the government take to maintain an affordable energy system for Ontarians throughout the energy transition?

The government can take several additional actions to ensure an affordable energy system during the energy transition, particularly by supporting carbon capture and storage (CCS) initiatives. Today, CCS projects are effectively reducing greenhouse gas emissions globally, offering a critical pathway to lower operational costs for energy-intensive, hard-to-abate industries. Moreover, CCS is essential for enabling low-carbon hydrogen production, fostering a more affordable and sustainable hydrogen industry in Ontario.

While Enbridge strongly commends the introduction of the *Geologic Carbon Storage Act*, further measures are necessary to unlock CCS's full potential in the province. A key gap is the lack of a streamlined regulatory pathway for CO2 pipeline development and other transportation methods connecting large emitters to geologic carbon storage sites. Without a complementary regulatory process to approve CO2 pipelines, Ontario risks underutilizing geologic carbon storage, which could delay progress in reducing emissions and achieving cost-effective energy solutions.

Additionally, the government should also offer incentives and foster a favorable investment environment for hydrogen and RNG production. Hydrogen provides Ontario with an opportunity to lead in clean energy technologies, offering hard-to-abate industries a low-carbon solution while attracting investments, generating jobs, and positioning the province as an energy superpower. Similarly, RNG presents a low-carbon, potentially negative-emission solution, creating additional revenue streams for farmers and helping to reduce waste volumes.

Becoming an Energy Superpower

17. What opportunities should Ontario consider to leverage its position as a clean energy leader?

Ontario's energy sector can position it as a clean energy leader and energy superpower. The province's electricity system is already one of the lowest carbon systems in the world, driven by strategically balancing the strengths of nuclear, hydro power, and natural gas. Nuclear and hydro provide the clean baseload power, while natural gas complements the grid by offering flexible, quick ramping capacity to meet peak demand. The ability to grow Ontario's generation with an all-of-the-above approach will allow both domestic and export opportunities to leverage affordable and clean power.

Ontario is also demonstrating its strength as an energy superpower through its growing exports of Ontario-made RNG to jurisdictions such as Quebec and BC. While there is the opportunity to use a greater amount of RNG within the province to support low carbon blending in the gas system or low carbon transit solutions, the export opportunities offer additional revenue streams for producers from the agricultural, municipal, and wastewater sectors.

Lastly, while hydrogen presents a long-term opportunity for Ontario's energy future, the government should support ramping up the hydrogen market to fully leverage the province's clean energy advantage. Ontario is well-positioned to be a hydrogen leader with significant strengths in hydrogen production and the manufacturing of key technologies, such as electrolyzers. However, in order to compete with jurisdictions with attractive hydrogen

incentives, like the US, BC, Quebec, and Alberta, the government should provide targeted incentives and support. This will help level the playing field, foster local job creation and innovation, and position Ontario as a clean energy leader and superpower, ready to compete on the world stage.

Conclusion

Enbridge Inc. appreciates the opportunity to provide feedback on the Integrated Energy Resource Plan.

Natural gas is indispensable to Ontario's energy landscape, providing an affordable, reliable, and resilient foundation that supports the province's economic growth while meeting the energy needs of key sectors of our economy. To ensure sustainable and cost-effective development, an integrated energy plan must balance emissions reduction goals, affordability, infrastructure expansion, customer choice, and innovation in technologies like hydrogen and CCS, positioning Ontario as a global energy leader.

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