Ontario Energy Board | Commission de l'énergie de l'Ontario

Ontario

BY EMAIL

March 31, 2021

Ms. Christine E. Long
Registrar
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4
Registrar@oeb.ca

Dear Ms. Long:

Re: Ontario Energy Board (OEB) Staff Submission
Enbridge Gas Inc. – Integrated Resource Planning Proposal
OEB File Number: EB-2020-0091

In accordance with Procedural Order No. 9, please find attached the OEB staff submission on Enbridge Gas Inc.'s application for approval of its Integrated Resource Planning Proposal. The attached document has been forwarded to Enbridge Gas Inc. and to all other parties to this proceeding.

Yours truly,

Michael Parkes

Digitally signed by Michael Parkes
Date: 2021.03.31 17:47:13 -04'00'

Michael Parkes
Project Advisor, Application Policy & Conservation

Encl.

ONTARIO ENERGY BOARD

OEB Staff Submission

Enbridge Gas Inc.

Integrated Resource Planning Proposal

EB-2020-0091

March 31, 2021

Contents

1. Background on this Proceeding 2
2. Definitions 3
3. Application Summary 3
4. Summary of OEB Staff Submission 5
5. Approvals Sought by Enbridge Gas For the IRP Framework 12
6. Guiding Principles 14
7. Types of Available IRPAs 16
8. IRP Assessment Process 20
   8.1. IRP Assessment Process Step 1: Identification of Constraints 22
   8.2. IRP Assessment Process Step 2: Binary Screening Criteria 26
   8.3. IRP Assessment Process Step 3: Two-Stage Evaluation Process 29
   8.4. IRP Assessment Process Step 4: Periodic Review 38
9. Stakeholder Outreach and Engagement Process 38
10. IRPA Cost Recovery and Accounting Treatment Fundamentals 41
11. Future IRP Plan Applications 45
12. Monitoring and Reporting 49
13. IRP Costs Deferral Account 50
14. IRP Pilot Project Proposal 51
15. AMI Acknowledgment 53
16. Next Steps 54

1. Background on this Proceeding

Enbridge Gas Inc. (Enbridge Gas) originally submitted an Integrated Resource Planning (IRP) Proposal to the OEB on November 1, 2019 as part of its Dawn-Parkway System Expansion Project Application (EB-2019-0159).

In its original proposal, Enbridge Gas defined IRP as ”a multi-faceted planning process that includes the identification, implementation, and evaluation of realistic natural gas supply-side and demand-side options (including the interplay of these options) to determine the solution that provides the best combination of cost and risk for our {Enbridge Gas} customers.”[1]

Enbridge Gas indicated that it filed this proposal for three reasons:[2]

1) To be responsive to recent direction from the OEB to: (a) consider demand-side management (DSM) as a pipeline alternative at the preliminary stage of project development in the context of leave to construct applications, (b) develop more rigorous, robust and comprehensive procedures to ensure conservation and energy efficiency opportunities can be reasonably considered as alternatives to future capital projects, as requested by the OEB in its Report on the DSM Mid-Term Review.[3]
2) To establish the necessary IRP policy guidance required for Enbridge Gas to be successful in considering IRP Alternatives (IRPAs) as non-facility alternatives to future expansion/reinforcement projects effectively and efficiently.
3) To demonstrate that IRP was not a viable alternative to the proposed Dawn-Parkway System Expansion project.

On April 28, 2020, the OEB issued a Notice of Hearing, that initiated a review of Enbridge Gas’ IRP Proposal as a separate proceeding (EB-2020-0091). The OEB required Enbridge Gas to file updated evidence, which was filed on October 15, 2020. OEB staff and Green Energy Coalition/ Environmental Defence also filed evidence, which was filed on November 12, 2020 (“the Guidehouse report”)[4] and November 23, 2020 (“the EFG {Energy Futures Group} report”)[5], respectively.

[1] Exhibit A, Tab 13, p.5
[2] Exhibit A, Tab 13, p.2
[3] *Report of the Ontario Energy Board - Mid-Term Review of the DSM Framework for Natural Gas Distributors (2015-2020)*, November 29, 2018, pp. 20-21
[4] *Natural Gas Integrated Resource Planning in New York State and Ontario*, Guidehouse Inc., November 12, 2020
[5] *Best Practices for Gas IRP and Consideration of “Non-Pipe” Alternatives to Traditional Infrastructure Investments*, (Exhibit M2.GEC-ED), Chris Neme, Energy Futures Group, November 23, 2020

2. Definitions

The following terms have generally been used in the OEB Staff submission and Enbridge Gas's Argument-in-Chief, consistent with the OEB's Decision on Issues List and Procedural Order No.2.[6]

- **IRP Framework:** Guidance or requirements for IRP for Enbridge Gas established by the OEB.
- **IRP Plan:** A plan filed by Enbridge Gas in response to a system need. IRP Plans would follow the guidance established in the IRP Framework. The preferred IRPA (defined below) identified in an IRP Plan would be compared to one or more alternatives to demonstrate it is the best option.
- **IRP Alternative (IRPA):** A potential solution considered under the IRP Plan in response to a specific system need of Enbridge Gas. IRPAs determined by Enbridge Gas to be the preferred solution to meet the system need would likely be brought forward for approval from the OEB. The OEB notes that the potential Alternative solutions would also likely include consideration of a facility project.

These definitions should be reviewed in drafting the final IRP Framework, to ensure that they remain appropriate and comprehensive, and that there is no ambiguity. For example, OEB staff has interpreted the term IRPA to exclude solutions that rely exclusively on a facility project, but include solutions that involve both facility and non-facility components (for example, a reinforcement in combination with demand reduction measures).

3. Application Summary

Enbridge Gas originally requested that the OEB determine that the policy direction set out within its IRP Proposal is reasonable and appropriate.[7]

In its Argument-in-Chief, Enbridge Gas clarified that it requests the OEB to approve an IRP Framework for Enbridge Gas that includes each of the following items:[8]

1) **Guiding Principles**: Approval of Reliability and Safety, Cost Effectiveness, Public Policy and Optimized Scoping as appropriate Guiding Principles to inform and influence how Enbridge Gas implements IRP.
2) **IRP Proposal Elements**:
   a) **Types of available IRPAs**: Approval for Enbridge Gas to use a wide variety of demand side alternatives (gas and non-gas, including electricity-based solutions), along with appropriate supply side alternatives, to meet an identified

[6] Decision on Issues List and Procedural Order No.2, July 15, 2020, p.6
[7] Exhibit A, Tab 13, Page 1
[8] Argument-in-Chief, pp.13-15

need/constraint (including allowing for consideration of a variety of ownership, operation and/or procurement scenarios for each).

b) **IRP Assessment Process:** Approval of a prescribed process, consisting of the four steps described below, to determine whether to pursue IRP solutions for an identified need/constraint.
   i) *Identification of Constraints*: Enbridge Gas's asset management process will identify potential system needs/constraints up to ten years in the future, and describe these in annual updates to the Asset Management Plan (AMP).
   ii) *Binary Screening Criteria:* Enbridge Gas will apply five binary screening criteria to identified system needs/constraints in the AMP to determine whether further IRP evaluation is appropriate.
   iii) *Two-Stage Evaluation Process:* Where a project progresses past the initial binary screening, Enbridge Gas will determine whether to proceed with an IRP Plan through two stages. First, Enbridge Gas will determine whether potential IRPAs could meet the identified constraint need. If yes, then Enbridge Gas will develop one or more IRP Plans and compare those to the baseline facility alternative, using a DCF+ {Discounted Cash Flow +} test, to determine the optimum alternative.
   iv) *Periodic Review:* Where circumstances change (for example, the nature or timing of an identified need/constraint alters materially, or significant policy changes are announced by government or the OEB), then Enbridge Gas will review its IRP determinations related to identified needs/constraints (reflecting changes through the annual update to the AMP) and will report to the OEB, stakeholders and potentially affected Indigenous groups as appropriate (either through the AMP, the IRP Report or via an IRPA application).

c) **Stakeholder Outreach and Engagement Process:** Approval of the proposed three-component stakeholdering process, including a purpose-specific stakeholder technical working group to support IRPA development and to identify and discuss new IRP solutions and IRP avoided costs and benefits.

d) **IRPA Cost Recovery and Accounting Treatment Fundamentals:** Approval of like-for-like treatment of IRPA investments, such that longer term investments in IRPA Plans will be capitalized as rate base, with cost recovery similar to the facilities investments that they are replacing at the time of in-service (with IRPA costs amortized over their useful lives).

e) **Future IRP Plan Applications:** Approval of a LTC-like process to review and approve a proposed IRP Plan designed to meet an identified need/constraint, with Enbridge Gas being given flexibility to adjust the IRP Plan without further OEB review except where the costs being adjusted are 25% or greater of the total approved cost.

f) **Monitoring and Reporting:** Approval of the proposed annual IRP reporting from

Enbridge Gas that will address IRP integration into existing planning processes, IRPA effectiveness, IRP pilot projects planned or underway, IRP stakeholdering and IRPA implementation.

3) **IRP Costs Deferral Account:** Approval of an IRP Costs Deferral Account which will track all incremental IRP-related costs not included in base rates (capital, operating and administrative costs) during the current deferred rebasing term.
4) **IRP Pilot Project Proposal:** Approval for Enbridge Gas to develop two pilot projects to be developed and initiated by the end of 2022 – one of which will apply the new IRP Framework through development and implementation of an IRP Plan to meet an identified need/constraint and the other of which will test a promising IRPA such as Demand Response (DR), along with Automated Metering Infrastructure (AMI)[9], if possible.
5) **AMI Acknowledgement:** An indication of the OEB's support for the role of AMI as an important enabler of successful IRP and IRPAs.

4. Summary of OEB Staff Submission

As requested by the OEB in Procedural Order No. 9,[10] the OEB staff submission follows the format of Enbridge Gas's Argument-in-Chief (AIC), and the specific approvals requested by Enbridge Gas as part of the IRP Framework. OEB staff has taken into consideration the evidence filed by Enbridge Gas and other parties (including the Guidehouse report filed on behalf of OEB staff) and the additional information from earlier stages in this proceeding, but has focused its submission as a response to Enbridge Gas's AIC and limited references to other evidence.

OEB staff makes the following submissions. The rationale for these submissions is described in more detail in the following sections.

Approvals Sought by Enbridge Gas For the IRP Framework: OEB staff supports the intent of providing policy clarity through an IRP Framework, including a new application stream, that will facilitate the efforts of Enbridge Gas to consider alternative approaches to system needs for the benefits of its customers, including the potential for reductions in infrastructure costs, energy costs, and greenhouse gas emissions. The OEB should establish an IRP Framework for Enbridge Gas, that is high-level in nature, to recognize that the details of Enbridge Gas's approach to IRP will evolve based on the learnings in the initial years of the Framework. The OEB's decision should include implementation steps to advance the IRP Framework.

[9] Enbridge Gas's AIC uses AMI alternately as an acronym for "Advanced Metering Infrastructure" or "Automated Metering Infrastructure" which have the same meaning in the AIC. "Advanced Metering Infrastructure" is the more commonly used term in the industry.
[10] Procedural Order No.9, March 5, 2021

Guiding Principles: The IRP Framework should define IRP as follows: *"Integrated Resource Planning is a planning strategy and process that considers facility and non-facility alternatives (including the interplay of these options) to address the system needs of Enbridge Gas's regulated operations, and identifies and implements the alternative (or combination of alternatives) that is in the best interest of Enbridge Gas and its customers, taking into account reliability and safety, cost-effectiveness, risk minimization, planning and regulatory efficiency, stakeholder perspectives, and alignment with public policy objectives."*

The IRP Framework should include guiding principles based on this definition, including new guiding principles related to risk minimization, planning and regulatory efficiency, and stakeholder perspectives, in addition to the principles regarding reliability and safety, cost-effectiveness and alignment with public policy that were proposed by Enbridge Gas.

The guiding principle for planning and regulatory efficiency should indicate that *"to focus on efficient and effective IRPA investment, resources are allocated to IRP activities in proportion to their expected impact, at all steps of IRP*". This principle recognizes that natural gas IRP is still at an early stage and that, depending on learnings from the IRP Framework regarding the viability of IRPAs in meeting system needs, the scale of Enbridge Gas's IRP efforts (and the resources allocated to specific activities) may need to increase or decrease.

Types of Available IRPAs: While demand-side IRPAs should be given high priority, Enbridge Gas should have broad latitude to consider a range of IRPAs, including supply-side IRPAs and potentially non-gas IRPAs including electricity IRPAs, so long as these are considered and implemented in support of meeting a specific system need associated with Enbridge Gas's regulated operations in the transmission, distribution or storage of gas. The use of market-based solutions for IRPAs, where feasible and cost-effective, should be encouraged. The IRP Framework should not extend to developing (and funding through rates) IRPAs to serve potential new customers who are not and will not be connecting to Enbridge Gas's natural gas network, but would instead be served solely by an alternative energy source, such as electricity.

Enbridge Gas should be required to develop and maintain a reference of best available information on IRPAs, updated as appropriate and filed as a chapter of Enbridge Gas's annual IRP report. This should not require OEB approval, but serves as a starting point to understand and consider the potential role of different IRPAs in meeting system needs.

IRP Assessment Process: The four-step IRP Assessment Process proposed by Enbridge Gas should be incorporated into the IRP Framework to determine whether to

pursue IRP solutions for an identified need/constraint.

Identification of Constraints: The needs identification phase of IRP should be scoped to address identified infrastructure needs, not gas supply needs. The IRP Framework should require Enbridge Gas to provide information in its Asset Management Plan, updated annually, on potential system needs/constraints up to ten years in the future, and the status of IRP consideration in regards to meeting these system needs, including the result of the initial binary screening, and details as to whether and why IRPAs had been screened out at subsequent steps, with supporting rationale. No explicit OEB review or approval of this information should be required.

The details of Enbridge Gas's demand forecast methodology should not be addressed in the IRP Framework. However, the IRP Framework should require Enbridge Gas to file the supporting ten-year demand forecast that underpins its annual AMP updates that identify system constraints. If the OEB determines that a more comprehensive review of Enbridge Gas's demand forecasting methodology is warranted, this could be considered in the context of Enbridge Gas's next rebasing application.

Enbridge Gas's proposal regarding the relationship between the IRP Framework and the pending post-2021 DSM Plan is appropriate for the near term, with active deferral or avoidance of specific infrastructure system needs addressed within the IRP Framework, not the post-2021 DSM Plan. It may still be appropriate for the OEB's review of the post-2021 DSM plan to assess what importance, if any, should be placed on peak demand reductions vs. energy savings. The relationship between the two frameworks should be reviewed following the term of the pending post-2021 DSM plan.

Binary Screening Criteria: The five binary screening criteria proposed by Enbridge Gas should be incorporated into the IRP Framework, and applied to identified system needs/constraints in the AMP to determine whether further IRP evaluation is appropriate.

The binary screening criteria should not prevent Enbridge Gas from considering IRPAs for other projects (e.g., pipeline replacement projects falling below the proposed cost threshold, customer-specific builds) if Enbridge Gas believes this is appropriate. Enbridge Gas should also be encouraged to pursue DSM efforts (funded through its DSM plan) for new customers connected through community expansion projects.

Two-Stage Evaluation Process: The IRP Framework should incorporate Enbridge Gas's proposal to evaluate projects passing the binary screening through a two-

stage evaluation process, assessing technical feasibility and then an economic comparison of facility projects and IRPA(s) to determine the optimum alternative.

The **primary** cost-effectiveness test in the IRP Framework should take a perspective similar to the Total Resource Cost-plus (TRC+) test used in the DSM Framework. In the context of IRP, the TRC+ test should measure and compare the costs and benefits of IRPAs and facility alternatives as experienced by Enbridge Gas and its customers, including all energy-related benefits and costs (including commodity energy costs and carbon costs), and also including some consideration of broader societal costs and benefits.

The IRP Framework should also require a DCF+ Part 1 test to assess rate impacts and cross-subsidization concerns as a secondary test, and a qualitative comparison of any relevant factors not captured by the two proposed economic tests.

Impacts on Enbridge's gas supply costs associated with the consideration of IRPAs and facility alternatives, if material, should be included in the cost-benefit analysis. To the degree possible, the reliability and economic risks associated with IRPAs and facility alternatives should be quantified within these tests.

The IRP Framework should provide some discretion to Enbridge Gas to bring forward IRP Plans/LTC applications for projects that do not have the highest score on the primary cost-effectiveness test, requiring Enbridge Gas to provide supporting rationale.

As part of its initial pilot proposal, Enbridge Gas should document its approach and assumptions to cost-effectiveness analysis of IRPAs and facility alternatives, based on the guidance in the IRP Framework. At that time, the OEB should determine whether a formal IRP Cost-Benefit Handbook needs to be developed.

Enbridge Gas should also begin using a cost-effectiveness approach based on the principles in the IRP Framework as soon as possible to evaluate and compare options (IRPAs and facility projects) for meeting system needs at both the transmission and distribution level, without waiting for any additional determination by the OEB regarding this methodology.

The existing E.B.O. 134 and E.B.O. 188 Guidelines should continue to apply in the context of the OEB's objective to facilitate rational expansion of transmission and distribution systems, in addition to the new cost-effectiveness test that would be required in the IRP Framework to compare IRPAs and facility alternatives.

The IRP Framework should require Enbridge Gas to update its E.B.O. 188

economic feasibility policies for new customer connections, to ensure that the estimated system reinforcement costs associated with new connections are based on a forward-looking approach that accounts for system needs/constraints identified in Enbridge Gas's Asset Management Plan.

Periodic Review: The IRP Framework should recognize that Enbridge Gas may need to review its IRP determinations if circumstances change, and report on the outcomes of any such review.

Stakeholder Outreach and Engagement Process: The three-component stakeholdering process proposed by Enbridge Gas should be incorporated into the IRP Framework. Written records should be kept by Enbridge Gas to inform future project-specific decisions, including applications for either IRP Plans or Leave to Construct (LTC) projects.

The OEB should also establish an IRP Implementation Advisory Committee, as a technical group focused on broader topics associated with implementation of the IRP Framework, led by OEB staff. OEB staff should work collaboratively with Enbridge Gas and other committee members to establish a terms of reference and identify priorities. Membership should also include independent experts, non-utility stakeholders, and possibly the Independent Electricity System Operator (IESO) as well as other observers as appropriate.

IRPA Cost Recovery and Accounting Treatment Fundamentals: The IRP Framework should include a principle of addressing imbalanced financial incentives for utilities to pursue IRPAs and creating a more level playing field with facility projects. Each IRP Plan application should propose a cost recovery methodology for project costs, along with accounting treatment, and supporting rationale, which may include capitalization of some project costs on a case-by-case basis. Over time, consideration of alternative cost recovery treatments for Enbridge Gas's IRP Plans could extend beyond capitalization. Incremental, non-project-specific IRP administrative costs may be included in the OM&A costs of Enbridge Gas's revenue requirement.

Future IRP Plan Applications: The IRP Framework should incorporate a new IRP Plan approval process that may bear some resemblance to the LTC approval process, mandatory for IRP Plans with a project cost equivalent or greater than the materiality threshold for LTC applications (prescribed in O.Reg. 328/03). Additional information to be filed in support of an IRP Plan application should include a record of relevant feedback from stakeholder and Indigenous groups at previous steps of IRP assessment, and a proposed approach to project cost recovery, cost allocation, and evaluation and monitoring. The order for an IRP Plan approval would likely include approval of a budget and cost recovery approach.

Prudently incurred costs associated with an approved IRP Plan should be eligible for cost recovery once a project is in service. There may be a greater degree of performance and cost risk associated with IRP as a new activity, in comparison with facility projects, and the OEB should take this consideration into account in its prudence review. Based on its implementation, evaluation and monitoring of "in-flight" IRP Plans, Enbridge Gas should take appropriate action to adjust its investments in approved IRP Plans as needed. Enbridge Gas should have the option of applying to the OEB for amendment of an approved IRP Plan, if in its view, circumstances warrant this action.

No explicit OEB approval of IRP-related planning decisions should be required until Enbridge Gas requests a specific project approval (IRP Plan, LTC, and/or entering assets into rate base upon rebasing). Enbridge Gas should bear the risk that the OEB might not approve an as-filed LTC application (or the full costs of the facility) in the circumstance where it determines that an IRP Plan would be a better approach, or vice versa.

Monitoring and Reporting: The IRP Framework should incorporate Enbridge Gas's proposed annual reporting approach. The annual IRP report should be filed as part of the proceeding in which Enbridge Gas seeks to clear the balance in its proposed IRP Costs Deferral account, and should include a chapter on best available information on IRPAs.

IRP Costs Deferral Account: The IRP Framework should establish an IRP Costs Deferral Account to track incremental IRP-related costs not included in base rates during the current deferred rebasing term, to be cleared on an annual basis. The degree to which administrative and project-related IRP costs are prudent and incremental to base rates should be reviewed as part of the annual clearance of this account balance. The OEB should direct Enbridge Gas to submit the necessary Draft Accounting Order for the IRP Costs Deferral Account, based on any guidance provided in the Decision in this proceeding on the nature of this account. The approach to cost recovery for IRP may change at rebasing. The expected costs associated with all aspects of IRP (administration costs and project costs for system needs that would be addressed during the rebasing term) should be incorporated into Enbridge Gas's rebasing application to the degree possible. At that time, the OEB may be in a position to opine on any changes to the cost recovery methodology for future IRPAs, including whether Enbridge Gas should remain whole for the revenue requirement impact of all project-specific IRPA costs during the next Incentive Rate-Setting Mechanism term.

IRP Pilot Project Proposal: The IRP Framework should require Enbridge Gas to bring forward its proposal for IRP pilots to the OEB for approval (under the proposed new IRP Plan Approval) within twelve months of the establishment of an IRP Framework, after seeking input from stakeholders and the IRP Implementation Advisory Committee.

Subject to an IRP Plan Approval and prudency review of actual costs, OEB staff supports full cost recovery of Enbridge Gas's annual revenue requirement associated with these pilots for any in service period leading up to the next rebasing year. Enbridge Gas should not wait for results from Pilot Projects before developing other IRP Plans, if Enbridge Gas determines that an IRP Plan is the best approach to meeting a system need.

AMI Acknowledgement: The IRP Framework should indicate that monitoring and metering technologies, including advanced metering infrastructure, can enable more effective consideration, implementation, and evaluation of IRPAs in meeting system needs, and that the expected benefits of these enabling technologies should be considered along with their costs.

Next Steps After Issuance of IRP Framework:

Implementation items for Enbridge Gas in the IRP Framework should include:

- Filing a Draft Accounting Order for the IRP Costs Deferral Account to track incremental IRP-related costs not included in base rates;
- Filing an annual IRP report as part of the initial clearance of this deferral account, including a chapter on best available information on IRPAs;
- Filing an application with the OEB requesting approval of IRP Pilot Projects within twelve months of the establishment of an IRP Framework;
    - This should include documenting Enbridge Gas's approach and assumptions to cost-effectiveness analysis of IRPAs and facility alternatives, based on the guidance in the IRP Framework.
- Evaluating and comparing IRPAs with facility projects as appropriate in Leave to Construct/IRP Plan applications, based on best available information, including a cost-effectiveness approach based on the principles in the IRP Framework;
- Filing an AMP that includes initial IRP analysis based on the IRP Assessment Process described in the IRP Framework in Q4 2022, to support both its 2023 Rate Case and 2024 Rebasing evidence;
- Reviewing Enbridge Gas's economic feasibility policies associated with system expansions, to ensure that system reinforcement costs are based on a forward-looking approach that accounts for system needs/constraints identified in Enbridge's Asset Management Plan, and submitting revised policies at rebasing.

The OEB should establish an IRP Implementation Advisory Committee.

The IRP Framework for Enbridge Gas should be high-level in nature, to recognize that the details of Enbridge Gas's approach to IRP will evolve based on the learnings in the initial years of the Framework. Changes to the Framework may still be necessary during

this period should circumstances warrant.

The timing for a more comprehensive review of the IRP Framework, if needed, could potentially be aligned with the end date of Enbridge Gas's pending post-2021 DSM Plan, which is expected to cover three to six years, including 2022.

5. Approvals Sought by Enbridge Gas For the IRP Framework

Enbridge Gas Approval Requested:

Enbridge Gas indicates that it has prepared an IRP Proposal and has requested that, "as part of the IRP Framework that will be issued by the OEB", the OEB consider and approve specific elements of this proposal.[11]

OEB Staff Submissions:

In considering Enbridge Gas's application, it is important that the OEB be clear what is meant by any "approvals" that are granted. The primary sources of the OEB's jurisdiction with respect to IRP will come from section 36 of the Act (the authority to set just and reasonable rates), and will be informed by section 2 of the Act (the OEB's objectives with respect to natural gas). IRPAs that involve some level of facilities build may also engage section 90 (leave to construct).

With the exception of the request for deferral accounts, none of the requested approvals set out by Enbridge Gas in its application and described in its argument in chief require a rate order under section 36 or section 90 at this time; in other words Enbridge Gas is not seeking any specific change to its OEB approved rates or approvals for particular facilities through this application. Enbridge Gas recognizes that ultimately it will require specific rate orders under section 36 to fund and implement any approved IRPAs, and/or section 90 for any IRP related facilities that require leave to construct.[12] OEB staff agrees with this. OEB staff also agrees with Enbridge Gas that, broadly speaking, a properly considered and implemented IRP framework is consistent with the OEB's statutory objectives with respect to gas, in particular objective 2 (to protect the interests of consumers with respect to prices and the reliability and quality of gas service), objective 3 (to facilitate rationale expansion of transmission and distribution systems), and potentially objective 5 (to promote energy conservation and energy efficiency in accordance with the policies of the Government of Ontario).

What the OEB is being asked to approve is a framework that will guide Enbridge Gas, intervenors, and the OEB in considering these future applications. This is consistent with the scope of the proceeding as established by the OEB through Procedural Order

[11] Argument-in-Chief, pp. 12-15
[12] Argument in Chief, paras. 41 and 131.

No. 2, where the OEB stated that the purpose of the proceeding is to establish an IRP Framework. Depending on what the OEB ultimately approves, this decision will set requirements for Enbridge Gas and guide all parties and the OEB in their consideration of individual IRP Plans, IRPAs or LTCs as they are applied for in the future (including the cost consequences of these initiatives. It is not dissimilar to other framework type documents issued by the OEB, such as the *Report of the Board: Demand Side Management Framework for Natural Gas Distributors (2015-2020)*,[13] the *Report of the Ontario Energy Board: Framework for the Assessment of Distributor Gas Supply Plans*,[14] and the Decisions and Reports of the Board in E.B.O. 188 and E.B.O. 134.[15]

It should be recognized, however, that the framework proposed by Enbridge Gas is not the only approval that will be required to implement IRP. Future proceedings will be required to approve individual IRP Plans, Leave to Construct projects (LTCs), and cost recovery for IRPAs and LTCs, and although whatever framework is approved will guide all parties in those proceedings, the OEB will still need to conduct a hearing and consider those applications on their merits. The establishment of a framework, in other words, will not automatically result in approvals in subsequent applications for individual IRP Plans, facilities projects, or other IRP related costs.

Enbridge Gas's IRP proposal has evolved over the course of the proceeding. The current version is described in the Argument-in-Chief, and provides additional details beyond the specific approvals requested by Enbridge Gas. OEB staff believes that the IRP proposal addresses the key topics that need to be considered in an IRP framework (specific points of divergence are discussed on an issue-by-issue basis in the following sections of this submission). The Guidehouse report describes the Non-Pipes Alternative Framework proposal that Consolidated Edison has filed in New York State, which covers a very similar set of topics as Enbridge Gas's IRP Proposal.[16]

OEB staff supports the intent of providing policy clarity through an IRP Framework, including a new application stream, that will facilitate the efforts of Enbridge Gas to consider alternative approaches to system needs for the benefits of its customers, including the potential for reductions in infrastructure costs, energy costs, and greenhouse gas emissions.

Therefore, OEB staff submits that the OEB's decision in this proceeding should include an IRP framework that addresses the specific elements Enbridge Gas has requested,

[13] EB-2014-0134, issued December 22, 2014
[14] EB-2017-0129, issued October 25, 2018
[15] Issued January 30, 1998 and June 1, 1987 respectively. Note that both of these proceedings were hearings convened under the predecessor section to the current section 21(1) of the OEB Act: "The Board of its own motion may … determine any matter that under this Act or the regulations in may upon an application determine…"
[16] Guidehouse report, sections 4.1.1, 5

including any modifications that the OEB has determined to be appropriate. The IRP Framework should be high-level in nature, to recognize that the details of Enbridge Gas's approach to IRP will evolve based on the learnings in the initial years of the Framework.

As noted in the Decision on Issues List and Procedural Order No. 2, the IRP Framework should apply only to Enbridge Gas. There are important differences between Enbridge and EPCOR Natural Gas Limited Partnership (ENGLP), and ENGLP is not an applicant. However, ENGLP is a party to this proceeding and its future approach to IRP may also be guided to some degree by the IRP Framework that is established for Enbridge Gas.

OEB staff also submits that the OEB's decision should include implementation steps to advance the IRP framework.

6. Guiding Principles

Enbridge Gas Approval Requested:

Enbridge Gas requests "approval of reliability and safety, cost effectiveness, public policy and optimized scoping as appropriate guiding principles to inform and influence how Enbridge Gas implements IRP."[17]

Guiding Principles[18]:

- Reliability and Safety - In considering IRPAs as part of system planning processes, Enbridge Gas's system design principles cannot be compromised, and the reliable and safe delivery of firm contracted peak period natural gas volumes to Enbridge Gas's customers must remain of paramount importance.
- Cost Effectiveness – IRPAs must be cost-effective (competitive) compared to other facility and non-facility alternatives, including taking into account impacts on Enbridge Gas ratepayers.
- Public Policy – IRP will be considered in a manner to ensure that it is supportive of and aligned with public policy, where appropriate.
- Optimized Scoping - Recognizing that reviewing IRPAs for every forecasted infrastructure project would be extremely time intensive, binary screening should be undertaken to confirm which forecast need(s) should undergo an IRP assessment and to ensure a focus at the outset on efficient and effective IRPA investment.

[17] Argument-in-Chief, p. 13
[18] Argument-in-Chief, p. 6

Enbridge Gas also proposes two potential definitions of IRP:[19]

- "A multi-faceted planning process that includes the identification, evaluation and implementation of realistic natural gas supply-side and demand-side options (including the interplay of these options) to determine the solution to an identified future need or constraint that provides the best combination of cost and risk for Enbridge Gas customers."
- "IRP is aimed at considering facility and non-facility alternatives to address long-term system constraints/needs such that an optimized and economic solution is proposed and implemented to meet the identified constraint or need."

OEB Staff Submissions:

OEB staff submits that the IRP Framework should include a definition of IRP and related terms, as well as Guiding Principles.

Definition of IRP and Guiding Principles

Staff proposes the following definition for IRP:

"Integrated Resource Planning is a planning strategy and process that considers facility and non-facility alternatives (including the interplay of these options) to address the system needs of Enbridge Gas's regulated operations, and identifies and implements the alternative (or combination of alternatives) that is in the best interest of Enbridge Gas and its customers, taking into account reliability and safety, cost-effectiveness, risk minimization, planning and regulatory efficiency, stakeholder perspectives, and alignment with public policy objectives."

Staff proposes keeping three of Enbridge Gas's proposed Guiding Principles (reliability and safety, cost effectiveness, and public policy), replacing "optimized scoping" with "planning and regulatory efficiency" and adding two new guiding principles for "stakeholder perspectives" and "risk minimization":

- Planning and regulatory efficiency: To focus on efficient and effective IRPA investment, resources are allocated to IRP activities in proportion to their expected impact, at all steps of IRP.
- Stakeholder perspectives: IRP takes into consideration the perspectives of stakeholders regarding how best to meet system needs, including the perspectives of stakeholders and potentially affected Indigenous groups from the specific geographic area relevant to a system need.
- Risk minimization: Economic risks associated with both facility and non-facility alternatives in meeting system needs are minimized, and risks and rewards are allocated appropriately between Enbridge Gas and its customers.

[19] Argument-in-Chief, p. 6

Taken as a whole, OEB staff submits that this IRP definition and set of Guiding Principles is aligned with the role that IRP should play for Enbridge Gas, and with OEB staff's perspective on the additional approvals requested by Enbridge Gas for the IRP Framework. These principles draw from the guiding principles proposed by EFG[20], as well as Enbridge Gas.

The rationale for the key changes in the proposed definition of IRP and Guiding Principles is as follows (these topics are discussed in more detail later in the Staff submission):

- Clarity that the scope of IRP is to address the identified system needs of Enbridge Gas's regulated operations;
- Risk minimization and allocation of risk and reward are pertinent to many areas of the IRP Framework, including cost recovery, comparison of alternatives, monitoring and reporting, and the consequences of project approval;
- The principle for "stakeholder perspectives" reflects the importance placed in the IRP Framework of stakeholdering, and, in particular, to acknowledge that the preferences of communities impacted by specific projects will play a role in choice of specific solutions;
- "Planning and regulatory efficiency" is relevant to topics such as the degree of stakeholdering and regulatory review, and Enbridge Gas's IRP Assessment Process, including the screening of system needs.

  OEB staff agrees with Enbridge Gas that the evidence in this proceeding indicates that natural gas IRP is still at an early stage.[21] In particular, the degree to which IRPAs will prove to be technical and economically viable alternatives to facility projects in meeting system needs cannot be determined with certainty at this time, and will depend on learnings from the IRP Framework, including results from the pilot projects and initial IRP Plans, advances in technology, learnings from other jurisdictions, and other factors. The wording of this principle recognizes that the scale of Enbridge Gas's IRP efforts (and the resources allocated to specific activities) may need to increase or decrease, as needed, depending on what is learned regarding the viability of IRPAs.

7. Types of Available IRPAs

Enbridge Gas Approval Requested:

Enbridge Gas requests "approval for Enbridge Gas to use a wide variety of demand side alternatives (gas and non-gas, including electricity-based solutions), along with appropriate supply side alternatives, to meet an identified need/constraint (including

[20] EFG Report (Exhibit M2.GEC-ED), pp.4-5
[21] Argument-in-Chief, p. 10

allowing for consideration of a variety of ownership, operation and/or procurement scenarios for each)."[22]

Enbridge Gas proposes considering a range of IRPAs[23] including gas supply-side alternatives (such as compressed natural gas and renewable natural gas, and commercial or market-based alternatives such as peaking supply, third-party assignments, or exchanges), demand-side solutions (demand response and targeted energy efficiency, gas-fired heat pumps), and non-gas alternatives, in particular, electricity (e.g. geothermal, electric heat pumps) and potentially district energy and power-to-gas. Enbridge Gas specifically seeks confirmation as to whether or not non-gas alternatives can be considered.

The role of Enbridge Gas with regards to ownership would likely differ based on the nature of the IRPA. In some cases, Enbridge Gas would directly own the asset, in other cases it might provide an incentive or service payment to a third party.

In cases where a demand-side IRPA involves equipment or activities already provided by the competitive market, Enbridge Gas would look to this market to assist in providing solutions.

OEB Staff Submissions:

Scope of IRPAs

OEB staff first notes that the OEB direction provided in previous proceedings that led Enbridge Gas to file its IRP proposal was focused on demand-side solutions to infrastructure avoidance/deferral.[24] OEB staff notes that demand-side IRPAs, including geotargeted energy efficiency and demand response, draw on Enbridge Gas's long-time experience delivering DSM programs, and are also an important part of IRP activities in New York State. For these reasons, OEB staff submits that demand-side IRPAs should receive a high priority in the implementation of the IRP Framework.

However, the system needs that IRP will address are driven by peak demand considerations,[25] and OEB staff agrees that many other IRPAs could also contribute to peak demand reductions.

Therefore, OEB staff submits that the IRP Framework should provide broad latitude for Enbridge Gas to consider a range of IRPAs (and seek cost recovery from ratepayers), so long as these are considered and implemented in support of meeting a specific

[22] Argument-in-Chief, p.16
[23] Exhibit B, pp. 21-29, Argument-in-Chief, p. 18
[24] These are summarized in the Notice of Hearing for the IRP proceeding (April 28, 2020).
[25] Exhibit I.Staff.5

system need associated with Enbridge Gas's regulated operations in the transmission, distribution or storage of gas. These could include supply-side IRPAs and potentially non-gas IRPAs including electricity.

OEB staff supports Enbridge Gas's intent to use market-based solutions, and OEB staff believes that this should reduce concerns regarding competition between regulated and non-regulated providers of energy services. OEB staff submits that this principle should be referenced in the IRP Framework, e.g, "Where IRPAs involve equipment or activities already provided by the competitive market, Enbridge Gas should make use of market-based solutions for IRPAs, which could include competitive procurements, where feasible and cost-effective."

The range of IRPAs could potentially include electricity IRPAs, including, but not limited to, heat pumps. The potential for Enbridge Gas to pursue fuel switching away from natural gas through such measures as part of their DSM plans has been noted in previous DSM Frameworks.[26]

However, in OEB staff's view, the IRP Framework should not extend to developing (and funding through rates) IRPAs to provide energy services based on an alternative energy source such as electricity to new customers who are not and will not be connecting to Enbridge Gas's natural gas network. In OEB staff's view, this activity would fall outside of the OEB's authority to set rates for the sale of gas or the transmission, distribution, and storage of gas under section 36 of the OEB Act.[27] The costs associated with projects of this nature cannot be justified on the grounds that they would meet a system need associated with the transmission, distribution and storage of gas. The use of electricity IRPAs may therefore play a smaller role for Enbridge Gas than it would for joint gas-electricity utilities in other jurisdictions.

The IRP Framework should be used to determine what is the best approach to addressing a system need that Enbridge Gas, as a rate-regulated natural gas distributor and transmitter, can pursue, while the existing E.B.O. 188 and E.B.O. 134 economic tests can assess whether this approach (if it is a natural gas distribution or transmission expansion project) is compatible with the OEB's objective to facilitate rational expansion of transmission and distribution systems.[28] If a proposed project involving a system expansion does not pass the E.B.O. 188/134 test, then it cannot be included in natural gas rates. In this circumstance, Enbridge Gas is still permitted to offer energy services such as geothermal to customers not connected to the natural gas network, and indeed

[26] See section 3 of the 2012-2014 DSM Guidelines

[27] The OEB's Decision and Order in EB-2017-0319 considers similar issues with regards to including costs for non-traditional business activities within regulated rates.

[28] Filing Guidelines on the Economic Tests for Transmission Pipeline Applications (E.B.O. 134 guidelines), Guidelines for Assessing and Reporting on Natural Gas System Expansion in Ontario (E.B.O. 188 guidelines)

is currently doing so,[29] but projects of this nature would not be rate-regulated and would not be part of the IRP Framework.

Specific IRPAs

Some IRPAs that can address system needs by reducing peak demand may not follow all of the steps in the IRP Framework, e.g. they may involve little or no direct costs for Enbridge Gas and thus may not require an IRP Plan and a specific request for funding. Such IRPAs might include rate design for firm and interruptible rates,[30] and potentially some of the market-based supply side alternatives.[31] OEB staff submits that the IRP Framework should indicate that solutions of this nature should still be classified as IRPAs and, where appropriate, be considered to meet system needs. OEB staff also notes that storage (throughout Enbridge Gas's transmission and distribution system, or potentially on the customer side), whether considered to be a facility project or an IRPA, received little discussion in this proceeding, but should be considered as a solution to meet system needs.

In the context of developing specific IRPAs, Enbridge Gas and the OEB also need to remain cognizant of any restrictions on Enbridge Gas's business activities imposed by its Undertakings to the Lieutenant Governor in Council, and the various related Orders-in-Council.[32] As there are no specific IRPA proposals before the OEB in this application, it is premature to assess what IRPAs (if any) might run afoul of the Undertakings. However, this could be reviewed in the context of future IRP Plan proceedings or other proceedings where Enbridge Gas seeks approval for IRPAs.

Information on IRPAs

Staff submits that the IRP Framework should require Enbridge Gas to develop and maintain a document on best available information on IRPAs, which would be updated as appropriate and filed as a chapter in Enbridge Gas's annual IRP report (see section 12, "Monitoring and Reporting"). Enbridge Gas should seek input from the IRP Implementation Advisory Committee prior to filing. The information provided could include the types of IRPAs, estimates of cost, peak demand savings, status in Ontario, potential role and relevance to Enbridge Gas's system, and learnings from pilot projects and other jurisdictions.

Enbridge Gas has indicated that it does not support this concept, at least if it requires an

[29] Oral Hearing transcript, day 2, pp. 156-158
[30] Exhibit I.Staff.15, Exhibit JT 2.1
[31] FRPO presentation, Presentation Day, February 19, 2021
[32] These undertakings and the amending Order-in-Council can be found as appendices to the OEB's decision in EB-2009-0172.

explicit OEB approval of the "menu" of IRPAs.[33]

OEB staff submits that the IRP Framework should not be overly prescriptive regarding the contents of this chapter, and that the OEB should not have any explicit role in reviewing or approving. OEB staff expects that this chapter would become more comprehensive over time, as experience was gained with IRP.

Although every system need (and the potential role that an IRPA could play in addressing the system need) is unique, general learnings regarding a class of IRPAs, be it heat pumps, demand response programs, or any other IRPA, will be transferable to assessing that IRPA's role in meeting future system needs. Given the large number of system needs where Enbridge Gas's proposed screening process might give at least some consideration to IRPAs (up to 189, based on a review of the 2021-2025 Asset Management Plan),[34] Enbridge Gas will need to be drawing on a similar reservoir of information as a starting point in in its comparison of alternatives in any event.

OEB staff believes that including this information in a public document would serve as a useful starting point for Enbridge Gas and others to understand and consider the potential role of different IRPAs in meeting system needs, which would be further refined in the context of project-specific determinations. This chapter would also be helpful for the OEB in its review of LTC/IRP Plan applications, in assessing whether Enbridge Gas has given appropriate consideration of alternatives to the proposed project.

8. IRP Assessment Process

Enbridge Gas Approval Requested

Enbridge Gas requests "approval of a prescribed process, consisting of the four steps described below, to determine whether to pursue IRP solutions for an identified need/ constraint."

1. Identification of Constraints

2. Binary Screening Criteria

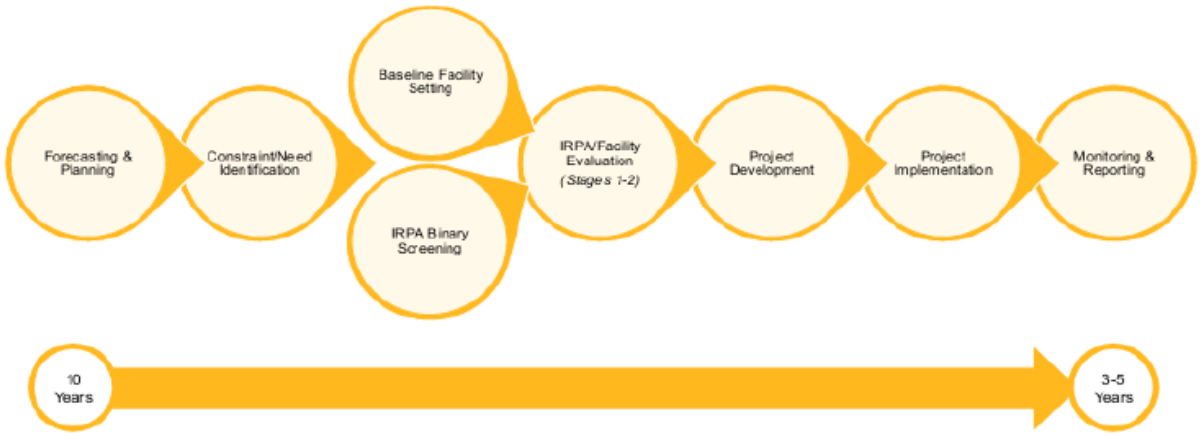
3. Two-Stage Evaluation Process

4. Periodic Review

Enbridge Gas provides an illustrative process plan describing how it would incorporate its IRP Proposal into its existing planning processes. [35]

[33] Argument-in-Chief, pp. 20-21
[34] Exhibit J1.1.
[35] Argument-in-Chief, p. 17

Figure 1 – Enbridge Gas proposed IRP process

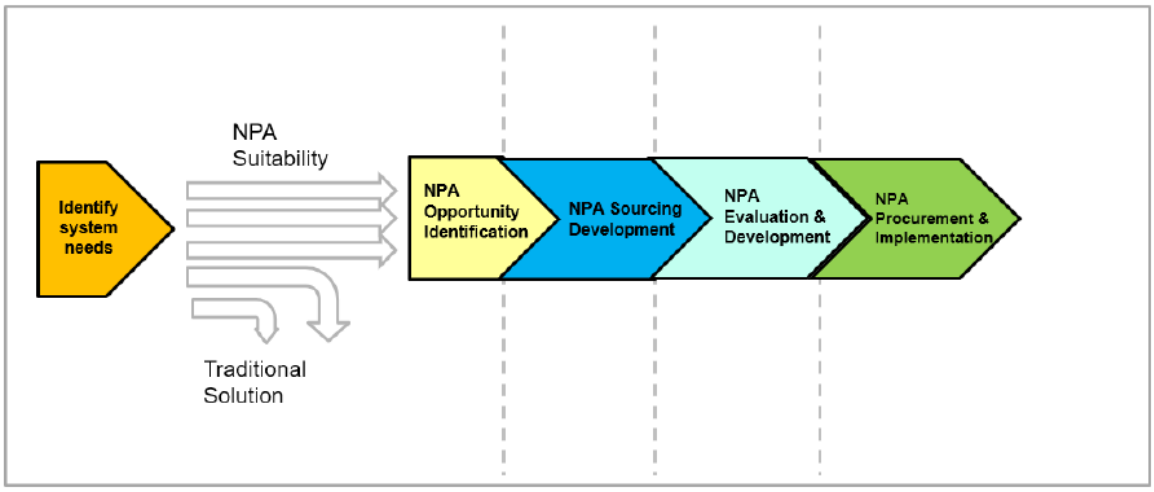


The phases of demand forecasting and identification of system needs precede any specific analysis of the potential role of IRP.

OEB Staff Submissions:

OEB staff generally supports Enbridge Gas's proposed IRP Assessment Process. OEB staff notes that Consolidated Edison in New York State has proposed a very similar process for consideration of non-pipes alternatives/IRPAs in system planning.[36]

Figure 2. NPA Consideration Process from Con Edison NPA Framework



OEB staff provides more detailed comments below on each of the four steps in the proposed IRP Assessment Process.

[36] Guidehouse report, p.30

8.1. IRP Assessment Process Step 1: Identification of Constraints

Enbridge Gas Proposal

Enbridge Gas proposes that its asset management process would identify potential system needs/constraints up to ten years in the future, and describe these in annual updates to the Asset Management Plan (AMP). The AMP is currently filed each year as part of Enbridge Gas's rate adjustment proceedings.

Enbridge Gas indicates that this ten-year horizon would permit time to consider whether IRPAs could meet the identified needs and, if so, to develop and evaluate and implement an IRP Plan in time to determine whether it is likely to meet the need or constraint.

Enbridge Gas indicates that the consideration of the potential role of IRP for meeting each system need identified during this step, and the current status of IRPA consideration, would be documented in Enbridge Gas's Asset Management Plan. A conceptual example of how that information could be presented is shown in the figure below. [37]

Table 1

	IRP Binary Screening Completed? *(Yes, No)*	**IRP Stage 1 – IRPA Assessment Completed?** *(Yes, No, n/a)*	**IRP Stage 2 - Economic Analysis Completed? Results?** *(Yes, No, n/a)*	**Contains IRPA(s)?** *(Yes, No, Description of IRPA(s))*
Project 1				
Project 2				
…				
Project n				

An updated version of this information would be provided each year in Enbridge Gas's Asset Management Plan.[38]

The AMP process addresses all utility assets within Enbridge Gas's regulated operations.[39] Under Enbridge Gas's proposal, IRP (and the consideration of IRPAs) would not be triggered by gas supply planning needs. [40]

[37] Exhibit JT 1.11
[38] Enbridge Gas's 2021-2025 Asset Management Plan covered a five-year period, but Enbridge Gas has indicated that it will increase the scope of future AMPs back to 10 years, in support of longer-term planning initiatives such as IRP. Exhibit I.Staff.6a
[39] AMP 2021-2025, section 1.1
[40] Exhibit I. Staff.2

The identification of system needs that triggers a requirement for investments in facilities or IRPAs is based on Enbridge Gas's demand forecast. Enbridge Gas did not propose any changes to its demand forecasting methodology in this proceeding.[41]

While not explicitly addressed in Enbridge Gas's Argument-in-Chief, the role of Enbridge Gas's DSM Plan in meeting system needs, and the relationship between the DSM Plan and the IRP Framework, is relevant to this first step in the IRP Assessment Process. In its initial IRP proposal, Enbridge Gas submitted that IRP should be reviewed and treated separately from its DSM plan.[42] Enbridge Gas noted that the goals of IRP (avoiding or deferring infrastructure projects through peak demand reduction) are different from the goals of DSM (reducing overall natural gas consumption and promoting energy efficiency). Enbridge Gas noted that while DSM programs can impact infrastructure requirements, the linkages are passive rather than active. The impact of Enbridge Gas's DSM activity (both actual and forecast) is incorporated into Enbridge Gas's demand forecasts, which then informs identification of system needs.[43]

In a letter (December 1, 2020) inviting Enbridge Gas to file a new multi-year DSM plan for the post-2021 period, the OEB indicated that the primary objective of ratepayer-funded natural gas DSM for the post-2021 DSM plan is assisting customers in making their homes and businesses more efficient in order to help better manage their energy bills. The OEB letter also listed "creating opportunities to defer and/or avoid future natural gas infrastructure projects" as a secondary objective of the DSM plan, and noted that this could include passive or active infrastructure deferral and that, within the IRP proceeding, the OEB would decide on the relationship between the IRP framework and utility DSM plans.[44]

As part of the IRP hearing, Enbridge Gas indicated that it is considering some potential modifications to its post-2021 DSM plan (which is required to be filed with the OEB in May 2021), in order to contribute to the secondary objective of infrastructure deferral.[45] These would be intended as "no-regrets activities" that would not compromise on the performance of the plan in meeting the primary DSM objective, and could include adding a monitoring metric as to how effective DSM measures were in reducing peak demand, or adjusting the marketing of DSM programs (which would remain available

[41] See Enbridge Gas's 5 Year Gas Supply Plan and Exhibit I.4.Staff(a) for more details on Enbridge Gas's demand forecasting methodology.
[42] Exhibit A, pp. 3-4
[43] Filing Requirements for Natural Gas Rate Applications, section 2.3.1. 5 Year Gas Supply Plan, sections 4.1, 4.2. The volumetric savings from DSM are incorporated into Enbridge Gas's annual demand forecast. Peak demand savings from DSM are not estimated directly. A daily demand profile is produced by Enbridge Gas based on design criteria and forecast annual demand.
[44] OEB Letter, Re: Post-2020 Natural Gas Demand Side Management Framework, December 1, 2020
[45] Technical Conference Day 2 Transcript, pp. 192-197

franchise-wide) to focus more on certain programs or on certain areas.

However, Enbridge Gas also sees a potential role for the same or similar types of efficiency measures that are offered in DSM programs within the IRP Framework, as an IRPA (enhanced targeted energy efficiency) to meet a specific system need.[46] Modifications for IRP purposes could include focusing on efficiency measures with the highest impacts on hourly peak demand, and "incentive stacking" – providing an additional incentive to customers within a targeted area on top of an existing incentive that is offered franchise-wide for the measure through the DSM Plan to drive higher levels of participation within the geographic area with the system need.

OEB Staff Submissions:

OEB Staff supports Enbridge Gas's proposal to provide comprehensive information on identified system needs for a ten-year planning horizon, within each annual update to the Asset Management Plan. The IRP Framework should clarify that the filing of an updated AMP will be required on an annual basis within rate adjustment proceedings, regardless of whether Enbridge Gas requests ICM treatment of any projects in the given year.

OEB staff submits that the IRP Framework should include not only a requirement for Enbridge Gas to list identified system needs within each AMP, but also to provide the status of IRP consideration in regards to meeting these system needs, including the result of the initial binary screening, and details as to whether and why IRPAs had been screened out at subsequent steps, with supporting rationale. While AMPs are not approved by the OEB per se, inclusion of this level of detail will provide the planning support for subsequent IRP Plans or LTC applications that will require OEB approval, including cost consequences.

OEB staff submits that no explicit OEB review or approval of Enbridge Gas's determinations regarding the role of IRPAs in meeting system needs should be required prior to project-specific applications. This is discussed further in section 11, "Future IRP Plan Applications".

OEB staff provides additional comments on the proposed scoping of IRP, Enbridge Gas's demand forecast, and the relationship between IRP and DSM.

Infrastructure Planning vs. Gas Supply Planning: OEB staff supports the scoping of IRP to address infrastructure needs, not gas supply planning needs. IRP was originally raised by the OEB in the context of considering alternatives to infrastructure, not gas supply planning. However, as noted, the types of IRPAs can include supply-side

[46] Exhibit B, pp. 27-29

alternatives. In addition, OEB staff submit that, when IRPAs are being considered to meet an identified infrastructure need, any incremental impact on gas supply costs (e.g. the need to hold additional pipeline capacity or peaking services upstream of Enbridge Gas's system) should be taken into account in the comparison of IRPAs and facility alternatives, as discussed in section 8.3, "IRP Assessment Process Step 3: Two-Stage Evaluation Process".

Demand Forecasting

Parties raised concerns with Enbridge Gas's demand forecasting methodology and assumptions, in particular, whether the assumptions in Enbridge Gas's forecast regarding future natural gas demand were consistent with public policy objectives and actions to transition to a lower-carbon future. The EFG report also suggested that Enbridge Gas's forecast and design day demand inputs may be overly conservative.[47] This could potentially lead to overinvestment in infrastructure that would not end up being used.

OEB staff submits that the details of the demand forecast methodology do not need to be addressed in the OEB's decision on Enbridge Gas's IRP proposal. However, the IRP Framework should require that, as part of its annual AMP updates filed in rates proceedings, Enbridge Gas also files its supporting ten-year demand forecast that underpins its identification of system constraints. If, based on the evidence in this proceeding, the OEB determines that a more comprehensive review of Enbridge Gas's demand forecasting methodology is warranted, OEB staff submits that this could be considered in the context of Enbridge Gas's next rebasing application.

Several aspects of the OEB's Filing Requirements for Natural Gas Rate Applications (which will inform Enbridge Gas's next rebasing application) are relevant to this issue.[48] Sections 2.3.1 and 2.3.2 include requirements for the information and methodology that must be presented in demand forecasts. In addition, section 2.2.6 of the Filing Requirements indicates that the Utility System Plan should include "longer term economic and planning assumptions" and "a description of how the needs of customers and overall system planning policy objectives are being reflected, including obligations stemming from Ontario Government policy."

The degree to which Enbridge Gas's demand forecast is compatible with the guidance in the Filing Requirements can then be considered at Enbridge Gas's next rebasing application.

[47] EFG Report (Exhibit M2.GEC-ED), pp.35-36
[48] Filing Requirements for Natural Gas Rate Applications

Relationship between IRP Framework and DSM Plan

OEB staff submits that the approach proposed by Enbridge Gas regarding the relationship between the IRP Framework and the pending post-2021 DSM Plan is appropriate for the near term, and that active deferral or avoidance of specific infrastructure system needs is appropriate to address within the IRP Framework, not the post-2021 DSM Plan. For IRPAs based on the same or similar types of efficiency measures offered in DSM programs, OEB staff submits that any IRP Plan application should clearly delineate how the proposed activity is incremental to the DSM Plan, and describe how this will be assessed in terms of tracking results and costs.

It may still be appropriate for the OEB's review of the post-2021 DSM plan to assess what importance, if any, should be placed on peak demand reductions (e.g. through measure selection and targets) vs. energy savings. Information from Enbridge Gas's Asset Management Plan regarding whether there are projected longer-term system needs that would affect a large proportion of Enbridge Gas customers (e.g. the trunk routes on Enbridge Gas's transmission system) may be helpful in that regard.[49] If such needs do exist, a greater focus on peak demand reduction in Enbridge Gas's post-2021 DSM plan may be warranted, as peak demand reductions achieved through the franchise-wide programs in the post-2021 DSM plan may avoid the need for a specific IRPA/facility project at a later date.

To use ratepayer funding most efficiently and to contribute towards achievement of the government's greenhouse gas reduction goals, it may not be appropriate for Enbridge Gas's DSM Plans and IRPAs to be kept separate in perpetuity. OEB staff suggests that the relationship between the two frameworks should be reviewed following the term of the pending post-2021 DSM plan, taking account of learnings from both frameworks.

8.2. IRP Assessment Process Step 2: Binary Screening Criteria

Enbridge Gas Proposal:

Enbridge Gas indicates that, after excluding system needs in the AMP that do not pertain to gas-carrying assets (buildings, fleet, IT, etc.), it will apply five binary screening criteria to identified system needs/constraints to determine whether further IRP evaluation is appropriate.

These criteria were modified by Enbridge Gas throughout the hearing. The final proposed binary criteria (which would exclude system needs from further IRP consideration) are described below.[50]

[49] Exhibit I. Staff.11
[50] Exhibit J1.4

- **Emergent safety issues:** System needs that must be addressed to ensure safe and reliable service or meet an applicable law (e.g. a pipeline that sustained unanticipated damage and needed to be replaced as quickly as possible);
- **Timing**: System needs that must be addressed within 3 years would generally not be considered for further IRP analysis, with limited exceptions.
    - Enbridge Gas has indicated that it expects most system needs to be identified more than 3 years in advance through its long-range planning process.[51]
- **Customer-specific builds:** Projects underpinned by a specific customer's (or group of customers') clear determination for a facility option and either the choice to pay a Contribution in Aid of Construction ("CIAC"), or to contract for long-term firm services delivered by such facilities (including new subdivision or small main extensions).
- **Community expansion:** Facility projects driven by policy and related funding to explicitly deliver natural gas into communities to help bring heating costs down.
    - Enbridge Gas clarified that this was limited to specific projects named in O. Reg. 24/19 (Expansion of Natural Gas Distribution Systems). [52] O. Reg. 24/19 lists specific projects as being eligible for a maximum amount of rate reduction, which is collected from all gas customers.
- **Smaller pipeline replacement and relocation projects:** Facility projects being advanced for replacement or relocation of a pipeline with a cost of less than $10 million. The $10 million threshold proposed by Enbridge Gas aligns with the proposed change to O. Reg. 328/03 under the *Ontario Energy Board Act, 1998*, that, if implemented, would raise the cost threshold for projects requiring LTC approval from $2 million to $10 million.[53]

The system needs where IRP had not been screened out through this binary screening would next move to the two-stage IRP evaluation process, described in section 8.3, "IRP Assessment Process Step 3: Two-Stage Evaluation Process".

These system needs where IRP has not been screened out would essentially be facility expansion/reinforcement projects and larger pipeline replacement and relocation projects.

Enbridge Gas indicates that facility expansion/reinforcement projects, where growth is the main driver, will be the area where IRP will be most effectively applied. Enbridge Gas defines facility expansion/reinforcement projects as projects designed to meet system needs arising from the addition of new customers to the system or from the increasing load/demands of existing customers, and are projects that support the transmission and distribution of natural gas at the system level as opposed to projects that are required to connect a specific customer.[54] However, Enbridge Gas indicates

[51] Exhibit I.Staff.8d
[52] Exhibit I.Staff.8f
[53] Environmental Registry proposal 019-0341. This proposal is open for comment until April 29, 2021.
[54] Exhibit I.Staff.7

that IRP should also be considered for larger pipeline replacement and relocation projects, as there may be opportunities to reduce the size of the replacement.[55]

OEB Staff Submissions:

OEB staff supports Enbridge Gas's binary screening criteria. OEB staff believes that Enbridge's binary screening criteria for IRP analysis are reasonable, and should encompass most infrastructure spending where IRPAs are potentially viable alternatives. The binary screening criteria should not prevent Enbridge Gas from considering IRPAs for other projects (e.g., pipeline replacement projects falling below the proposed cost threshold, customer-specific builds) if Enbridge Gas believes this is appropriate.

OEB staff notes that Enbridge Gas's proposed screening criteria have evolved over the course of the hearing, such that more system needs are likely to advance to the next step of IRP assessment. In particular, Enbridge Gas's final criteria now limit the safety exclusion to system needs that need to be addressed urgently, and now permit larger pipeline replacement and relocation projects to be considered for further IRP assessment. The final list of criteria are now very similar to those proposed by Consolidated Edison in New York State.[56]

Enbridge Gas estimates that roughly 37% of its gas system-related capital spending in its most recent 5-year Asset Management Plan, including about 189 discrete projects (164 system reinforcement/expansion, 25 pipeline replacement and relocation) would be classified as eligible for IRP analysis using these criteria.[57]

OEB staff offers additional comments below regarding the customer-specific builds exemption criterion and the community expansion exemption criterion.

- **Customer-specific builds exemption:** This criterion is for customer-specific builds where customers or groups of customers have expressed a clear preference for a facility option and either the choice to pay a CIAC, or to contract for long-term firm services delivered by such facilities.
    - In such cases, there could still be IRPAs (which the customer(s) may have been unaware of) that would benefit these customers and lower their CIAC costs (e.g. reducing the size of their gas connection through partial fuel switching, in areas with system constraints). Where appropriate, Enbridge Gas can consider IRPAs and discuss with these customers. The

[55] Exhibit JT 2.11
[56] Guidehouse report, p. 29
[57] Exhibit J1.1. Enbridge Gas's analysis includes the exemptions for emergent safety issues, customer-specific builds, and small pipeline replacement and relocation projects, but not the exemptions for Community Expansion projects (which are not in the 2021-2025 Asset Management Plan) or the 3-year timing criterion, as Enbridge Gas indicates that it is not reasonably possible to retroactively establish when each of the reinforcements, relocations, and replacements in the 2021-2025 AMP were initially identified.

degree to which an IRPA can be pursued will depend on customer preference.
    - The CIAC, if any, that will be required (for a facility project or an IRPA) is based on Enbridge Gas's economic feasibility policies to comply with E.B.O. 188. As discussed in section 8.3, "IRP Assessment Process Step 3: Two-Stage Evaluation Process", OEB staff recommends that Enbridge Gas update its economic feasibility policies at rebasing, such that the CIAC calculations are based on an accurate forward-looking estimate of the normalized system reinforcement costs imposed by connecting these customers, taking into account any system needs/constraints identified in Enbridge Gas's Asset Management Plan.
- **Community expansion exemption:** As discussed in section 7, "Types of Available IRPAs", OEB staff has submitted that, in general, the IRP framework should not extend to developing (and funding through rates) IRPAs that do not involve connecting to Enbridge Gas's natural gas network. The natural gas expansion projects covered by this exemption are specific projects supported by government policy and named in O. Reg. 24/19 (Expansion of Natural Gas Distribution Systems). Therefore, OEB staff submits that Enbridge Gas could seek approval for community expansion projects named in O. Reg. 24/19 without the need to consider IRPAs. Such projects would still be subject to the requirements of E.B.O. 188.

  OEB staff notes that Enbridge Gas should also be encouraged to pursue DSM efforts (funded through its DSM plan) for new customers connected through community expansion projects; acquisition costs of DSM may be lower than usual as Enbridge Gas will already be making contact with each of these customers for the service connection.

8.3. IRP Assessment Process Step 3: Two-Stage Evaluation Process

Enbridge Gas Proposal:

For system needs progressing past the initial IRP binary screening, Enbridge Gas proposes determining whether to proceed with an IRP Plan through two stages.[58] First, Enbridge Gas would determine whether potential IRPAs could meet the identified constraint/need. If yes, then Enbridge Gas would develop one or more IRP Plans and compare those to the baseline facility alternative, using a DCF+ test, to determine the optimum alternative.

Enbridge Gas indicates that the two-stage evaluation process would commence sufficiently far in advance of the date that the constraint/need must be met in order to allow for time for an IRP Plan to be developed, approved, implemented and monitored

[58] Argument-in-Chief, pp. 27-31

for effectiveness in advance of the date when a facilities solution would be required.

Stage 1: Technical Evaluation:

The first stage would look at the technical viability of potential IRPAs to reduce peak demand to the degree required, using best available information.

Stage 2: Economic Evaluation:

Enbridge Gas proposes that the economic evaluation would consist of a three-part[59] Discounted Cash Flow (DCF) evaluation to compare the IRP Plan(s) to the baseline facility alternative, basing this test on the three-part approach used for transmission system expansions under the parameters established by E.B.O. 134:[60] Enbridge Gas calls this a DCF+ test (the plus indicates the extension of this test to assess IRPAs as well as facility projects).

- Part 1 assesses the economic benefits and costs from the utility perspective, and indicates whether the project is likely to result in future increases to utility rates;
- Part 2 assesses the incremental economic benefits and costs incurred by customers from the IRPA or facilities solution;
- Part 3 assesses the incremental societal benefits and costs.

The categories of benefits and costs that Enbridge Gas proposes to include in each part are shown below.[61]

[59] The term "part" is used instead of "stage" in the Staff submission for the components of the DCF+ test to avoid confusion with the two "stages" of the evaluation of IRPAs, which are themselves jointly considered the third of four "steps" in the IRP Assessment Process.
[60] A recent example of how this three-part test (including the concept of summing the results of the three parts) has been used for transmission system expansions can be seen for the proposed Dawn-Parkway expansion project (EB-2019-0159): Application and Evidence, Exhibit A, Tab 8. Enbridge Gas has also provided a hypothetical example of how this test could work in comparing facility projects and IRPAs in Exhibit JT 2.15.
[61] Exhibit JT 2.2

	Benefit/Cost	Stage 1	Stage 2	Stage 3
	Benefits			
	Incremental Revenues	x		
2	Avoided Utility Infrastructure Costs	x		
3	Avoided Customer Infrastructure Costs		x	
4	Avoided Utility Commodity/Fuel Costs	x		
5	Avoided Customer Commodity/Fuel Costs		x	
	Avoided O&M	x		
	Avoided GHG Emissions		x	
	Other External Non-Energy Benefits			x
	Costs			
1	Incremental Capital Expenditure	x		
1	Incremental O&M	x		
	Incremental Taxes	x		
4	Incremental Utility Commodity/Fuel Costs	x		
5	Incremental Customer Commodity/Fuel Costs		x	
	Incremental GHG Emissions		x	
	Incremental Customer Costs		x	
	Other External Non-Energy Costs			x

Notes:
(1) Capital & O&M is inclusive of program administrative costs.
(2) Avoided or reduced infrastructure capital costs of the Utility (e.g. use of smaller diameter pipe).
(3) Avoided or reduced infrastructure capital costs of the customer (e.g. reduced Contribution in Aid of Construction).
(4) Avoided or incremental fuel costs of the Utility (e.g. compressor fuel and unaccounted for gas).
(5) Avoided or incremental fuel costs of the customer (e.g. lower/higher natural gas use, lower/higher electricity use).

A Net Present Value (NPV) would be calculated for each part. Results from each part would be presented separately for transparency, but would also be summed together.

The DCF+ results for the IRP Plan and facilities alternative would be compared to one another, to determine which alternative is optimal.

Enbridge Gas expresses a preference for this three-part test, as opposed to an "all-in-one" test such as the TRC+ test (used in Ontario for assessing the cost-effectiveness of DSM measures), because the TRC+ test on its own does not provide any indication of the rate impact or potential for cross-subsidization of the IRP and facilities options considered (information that is provided in part 1 of the proposed DCF+ test). Enbridge Gas also notes that there is little or no experience using a TRC+ test to evaluate facility projects.

While economics would be a factor in the final decision, Enbridge Gas indicates that other considerations (safety, public policy, reliability) that are potentially difficult to quantify would also play a role in the final decision as to which IRPA or facility project is selected.

OEB Staff Submissions:

Two-Stage Evaluation Process

OEB staff submits that the two-stage process proposed by Enbridge Gas, whereby the technical ability of IRPAs to meet system need is first assessed (at least at a high level)

prior to detailed economic analysis, is reasonable, although this process may not be as linear as Enbridge Gas describes (e.g. if an IRPA is found to be economically preferred, it may require a more in-depth analysis as to its technical feasibility than the original high-level analysis provided).

Learnings from pilot projects and the assumptions regarding different IRPAs (which OEB staff has recommended be documented in the annual IRP report) will be important in both the technical and economic stages of the evaluation.

Primary Cost-Effectiveness Test

OEB staff agrees with Enbridge Gas that the three perspectives considered in the DCF+ test (utility/ratepayer, customer, and societal) are valuable. However, a determination needs to be made as to which of the three perspectives, if any, should be given primacy.

OEB staff submits that the **primary** cost-effectiveness test in the IRP Framework should take a perspective similar to the TRC+ test used in the DSM Framework. In the context of IRP, the TRC+ test should measure and compare the costs and benefits of IRPAs and facility alternatives as experienced by Enbridge Gas and its customers, including all energy-related benefits and costs (including commodity energy costs and carbon costs), and also including some consideration of broader societal costs and benefits.[62]

The categories of costs and benefits included in this test would be similar to those included in the first two parts (combined) of Enbridge Gas's proposed DCF+ test, likely with some additional costs/benefits from the third part as well.[63] However, the net present value of multiple parts would not be added together as Enbridge Gas has proposed, and thus could yield a different result. OEB staff agrees with EFG that there are methodological concerns associated with the approach of adding the NPV of multiple parts of the DCF+ test together, and that adding together the costs and benefits of the first two parts will not accurately determine the cost-effectiveness from a customer perspective, nor will adding together the costs and benefits of all three parts accurately determine the cost-effectiveness from a societal perspective.[64]

OEB staff believe that using a TRC+ test of this nature as the primary test is most closely aligned with the definition and guiding principles that OEB staff has proposed for

[62] In the DSM Framework, this is accomplished by a 15% adder to account for non-energy benefits associated with DSM, such as environmental, economic and social benefits. Within the IRP Framework, the approach to non-energy and societal costs and benefits could differ.
[63] OEB staff notes that, because Enbridge Gas customers pay the Federal Carbon Charge, there is less difference between the customer perspective and the societal perspective than there would be in other jurisdictions without carbon pricing, such as New York State.
[64] EFG Presentation, Presentation Day, February 19, 2021, slides 14-15

the IRP Framework, in which IRP "identifies and implements the solution that is in the best interest of Enbridge Gas and its customers, taking into account reliability and safety, cost-effectiveness, risk, regulatory efficiency, stakeholder views, and alignment with public policy objectives."

A key feature of the TRC+ test is that it includes the benefits to customers from avoided commodity energy costs from demand-side options. OEB staff notes that the original impetus for IRP from the OEB's perspective was to draw on Enbridge Gas's expertise with demand-side management solutions for the purpose of infrastructure avoidance/deferral, and submits that the TRC+ test is best aligned with this goal.

OEB staff submits that Enbridge Gas should follow the additional guidance regarding cost-effectiveness testing:

- Impacts on Enbridge's gas supply costs associated with the consideration of IRPAs and facility alternatives, if material, should be included in the cost-benefit analysis.[65]
- To the degree possible, the reliability and economic risks associated with IRPAs and facility alternatives should be quantified within these tests.
- Avoided carbon costs should be monetized at the relevant rate of the Federal Carbon Charge in law.
    - A sensitivity analysis should also be conducted if there are changes that are likely to come to pass. Specifically, Enbridge Gas should conduct a sensitivity analysis using the assumption that the Government of Canada will implement the carbon pricing approach described in its current climate plan, whereby the carbon price would continue to increase by $15 per year, starting in 2023, rising to $170 per tonne of carbon dioxide in 2030.[66]
- In cases where a project might include new customer connections, the TRC+ test in the IRP Framework should also encompass the benefits and costs of different options to these potential new customers.

[65] Enbridge Gas confirmed that it does not consider these impacts in its current application of the E.B.O. 134 test and E.B.O. 188 tests, in part because it believes these impacts are minimal, due to Enbridge Gas's large storage capacity at Dawn (in other words, impacts on Enbridge Gas's transmission & distribution network due to system peak demand may not lead to corresponding impacts upstream of Enbridge Gas's system) (Technical Conference day 2 transcript, pp. 198-199). However, costs of this nature are specifically included in Consolidated Edison's BCA Handbook for non-pipeline alternatives (section 4.2), as "Off-System Benefits".

[66] *A Healthy Environment and a Healthy Economy*, Environment and Climate Change Canada, p.26.

Implementation Approach

All three parties filing evidence in this proceeding indicated that more work is likely needed regarding cost-effectiveness treatment of IRPAs.[67]

As part of its initial pilot proposal, Enbridge Gas should document its approach and assumptions to cost-effectiveness analysis of IRPAs and facility alternatives, based on the guidance in the IRP Framework. This should also include Enbridge Gas's perspective as to which societal costs and benefits it believes are appropriate to consider within this test, and how these would interact or substitute for the 15% "non-energy benefits" adder that is currently used in the DSM Framework.

Enbridge Gas should draw on best practices in this area, including the methodology used for the TRC+ test in the DSM Framework,[68] and Consolidated Edison's Gas Benefit-Cost Analysis Handbook.

Enbridge Gas should discuss its proposed approach with the Implementation Advisory Committee.

OEB staff submits that this approach will be helpful in identifying any methodological concerns that need to be addressed. At that time, the OEB should determine whether a formal IRP Cost-Benefit Handbook needs to be developed.

Enbridge Gas should also begin using a cost-effectiveness approach based on the principles in the IRP Framework as soon as possible to evaluate and compare options (IRPAs and facility projects) for meeting system needs at both the transmission and distribution level, without waiting for any additional determination by the OEB regarding this methodology. Implementing this approach immediately would help address a concern raised by OEB staff in the recent London Lines Replacement Project proceeding (EB-2020-0192), that, if not considering avoided commodity energy costs, it is unlikely that an alternative including DSM would be selected as a preferred alternative to an infrastructure project.[69]

Secondary Tests and Cross-Subsidization Concerns

OEB staff believes that while the proposed TRC+ test should be given primacy in the IRP Framework, it should not be absolute. The IRP Framework should provide some discretion to Enbridge Gas to bring forward IRP Plans/LTC applications for projects that do not have the highest TRC+ value, requiring Enbridge Gas to provide supporting rationale for its preference. OEB staff submits that a DCF+ Part 1 test and a qualitative

[67] Argument-in-Chief, p. 29
[68] Filing Guidelines to the 2015-2020 DSM Framework, sections 9 and 10.
[69] OEB Staff submission, EB-2020-0192, pp. 12-13

comparison of options should be conducted as part of the comparison of alternatives.

OEB staff agrees with Enbridge Gas that there are potential rate impacts and cross-subsidization issues that are relevant to the comparison between IRPAs and facility alternatives, and that these are not identified in the TRC+ test.

The TRC+ test may identify an IRPA as the preferred alternative, but there could be a very unequal distribution of costs and benefits if many of the benefits accrue only to IRPA program participants.

For this reason, OEB staff submits that a DCF+ Part 1 test is an appropriate tool to assess rate impacts and cross-subsidization concerns, and should be included in the IRP Framework as part of the comparison of alternatives as a secondary test.

Beyond the use of the DCF+ Part 1 test, OEB staff does not believe specific provisions need to be put in place in the IRP Framework to address cross-subsidization concerns at this time. OEB staff expects that the overall rate impact of IRP Plans will be small at first. As specific IRP Plans come forward, the OEB will gain experience with the project costs of IRP Plans, their rate impacts, and any cross-subsidization issues, and can revisit this issue as appropriate, either within the context of the Framework, or in specific IRPA applications (see section 11, “Future IRP Plan Applications”. The DSM Framework has addressed a similar issue for DSM programs through several mechanisms, including a total budget cap on DSM, and increasing participation by ensuring DSM programs are available to different rate classes and funded by those rate classes.

OEB staff agrees with Enbridge Gas that there may be other considerations relevant to the comparison between IRPAs and facility alternatives that are potentially difficult to quantify in the TRC+ test and the DCF+ Part 1 test. Enbridge Gas notes safety, public policy, and reliability. Other factors in this category could include perspectives of stakeholders impacted by the project, and (non-carbon-related) environmental impacts. OEB staff submits that the IRP Framework should require a qualitative comparison of such factors. The Guidehouse report provides an example of how National Grid has done such a qualitative comparison of facility and non-facility alternatives in the context of IRP.[70]

Relationship to E.B.O. 134/188

Enbridge Gas’s proposed cost-effectiveness test is based on the E.B.O. 134 test used for transmission system expansion projects.[71]

[70] Guidehouse report, pp. 42-44
[71] Filing Guidelines on the Economic Tests for Transmission Pipeline Applications (EB-2012-0092)

OEB staff submits that the existing Filing Guidelines on the Economic Tests for Transmission Pipeline Applications (E.B.O. 134) and Guidelines for Assessing and Reporting on Natural Gas System Expansion in Ontario (E.B.O. 188) should continue to apply, in addition to the new cost-effectiveness test that would be required in the IRP Framework to compare facility projects with IRPAs.

The E.B.O. 134 and 188 tests assess whether a natural gas distribution or transmission expansion project is compatible with the OEB's objective to facilitate rational expansion of transmission and distribution systems. A key feature of these tests is that they can indicate when the preferred approach is for Enbridge Gas to take no action, in cases where a potential project has an NPV of less than zero.

The E.B.O. 188 guidelines also addresses cross-subsidization concerns between new and existing customers to determine whether a customer contribution would be required for a distribution system expansion project that connects new customers, Enbridge Gas's supporting economic feasibility policies provide more details regarding whether a customer contribution would be required, and if so, how it would be calculated.[72] OEB staff submits that Enbridge Gas's economic feasibility policies for E.B.O. 188 could also be used to determine whether a customer contribution, in the form of a Contribution-in-Aid-of-Construction, System Expansion Surcharge, or Temporary Connection Surcharge, would be required for an IRPA. This would help address cross-subsidization concerns in the case where an IRPA was being proposed for the benefit of new customers.

OEB staff believes that aligning the assumptions regarding the infrastructure costs associated with new customer connections in the IRP Framework, and in Enbridge Gas's economic feasibility policies, respectively, is important. This is discussed later in this section.

OEB staff acknowledges that there will be a large degree of overlap between the cost-effectiveness test in the IRP Framework and the E.B.O. 134/188 economic tests. At some point, it may be feasible to combine these into a single process. Such a change would also need to account for the fact that the E.B.O. 134/188 guidelines apply to all natural gas utilities regulated by the OEB.

Addressing System Reinforcement Costs of New Customer Connections in Context of IRP

An important aspect of cost-benefit analysis in the context of IRP is the economic analysis (and supporting assumptions regarding infrastructure impacts) used by

[72] The most recent version of these policies can be found in EB-2020-0094, Exhibit C, Tab 2, Schedules 1 and 2 for the EGD and Union rate zones

Enbridge Gas to assess projects to connect any new customers. Under the E.B.O. 188 guidelines,[73] the portfolio of projects associated with connecting new distribution system customers is required to achieve a profitability index ("PI") greater than 1.0 (equivalent to an NPV of 0, using the DCF part 1 test discussed above). Enbridge Gas's supporting economic feasibility policies to address these guidelines go farther, requiring all individual projects to achieve a PI of 1.0, absent exceptional circumstances.[74]

If a project does not achieve a PI of 1.0, additional contributions from customers can be required to bring a project PI up to 1.0. These contributions can include a customized CIAC payment for larger customers, a System Expansion Surcharge (for expansion projects that would provide first-time natural gas access to a minimum of 50 potential customers) or a Temporary Connection Surcharge (for small main extension or customer attachment projects for less than 50 potential customers). The OEB recently approved uniform rates for the System Expansion Surcharge and Temporary Connection Surcharge for general service customers across Enbridge Gas's service territory.[75]

The E.B.O. 188 guidelines require that the costs associated with a project include "an estimate of the normalized system reinforcement costs."[76] Enbridge Gas indicated that its current practice is generally that reinforcement costs are "attached to the growth project that necessitates or triggers it."[77]

In areas of the natural gas network with system needs/constraints (identified in the AMP), new customer connections will contribute to the need for future system reinforcement.

The OEB has recently directed Enbridge Gas to submit revised economic feasibility policies as part of its rebasing application.[78] OEB staff submits that the IRP Framework should direct that Enbridge Gas incorporate the following change into the revised economic feasibility policies it will submit at rebasing:

- Indicate that project PIs are to be calculated including an estimate of the normalized system reinforcement costs, *taking a forward-looking approach that accounts for system needs/constraints identified in Enbridge Gas's Asset Management Plan*.

[73] Section 1.1 of the Guidelines
[74] EB-2020-0094, Application and Evidence, Exhibit C, Tab 2, Schedule 1, page 2; Tab 2, Schedule 2, pp. 4-5
[75] EB-2020-0094, Decision and Order, November 5, 2020
[76] E.B.O. 188 Guidelines, section 2(c)
[77] Oral Hearing Transcript Day 3, March 3, 2021, p.103; See also discussion in Oral Hearing Transcript Day 1, March 1, 2021, pp. 159-166
[78] EB-2020-0094, Decision and Order, November 5, 2020, p.23

A potential outcome of this change would be that, in areas with system constraints and high system reinforcement costs, projects would be less likely to pass the PI test (or would require higher customer surcharges), indicating that these potential customers may be better served by a different energy supply technology, instead of connecting to Enbridge Gas's natural gas distribution network.

This change would align Enbridge Gas's efforts to use IRP to address system constraints with its system expansion policies to connect new customers. It makes no sense to connect new customers without accurately considering the system impacts of new customer connections, but then subsequently need to implement IRPAs (paid for by all Enbridge Gas ratepayers) to address those impacts.

8.4. IRP Assessment Process Step 4: Periodic Review

Enbridge Gas Proposal

Enbridge Gas indicates that where circumstances change (for example, the nature or timing of an identified need/constraint alters materially, or significant policy changes are announced by government or the OEB), then Enbridge Gas will review its IRP determinations and report on the outcome of its re-evaluation within the AMP and/or annual reporting.

OEB Staff Submissions:

OEB staff agrees that the IRP Framework should recognize that Enbridge Gas may need to review its IRP determinations if circumstances change, and report on the outcomes of any such review.

9. Stakeholder Outreach and Engagement Process

Enbridge Gas Approval Requested

Enbridge Gas requests "approval of the proposed three-component stakeholdering process, including a purpose-specific stakeholder technical working group to support IRPA development and to identify and discuss new IRP solutions and IRP avoided costs and benefits."[79]

Enbridge Gas's proposed three-component process includes:

1. Gathering of Stakeholder Engagement Data and Insight: Seeking insights from stakeholders and various market participants by working within existing stakeholder engagement channels, on an ongoing basis.
2. Stakeholder Days: Annual regional stakeholder events, focusing on system needs/constraints identified in the AMP for the region, and the potential role of

[79] Argument-in-Chief, p. 14

IRP. These would be held on an annual basis shortly after Enbridge Gas files its AMP update within Phase 2 of the annual rates proceeding.

3. Targeted Engagement: Project-specific consultation dealing with specific IRPAs or IRP Plans (identified for a specific need in a specific geographic region), with stakeholders from the specific geographic area relevant to the IRPA. Enbridge Gas notes that it intends to consult with any potentially impacted Indigenous group in relation to proposed IRP Plans, IRPAs and LTC applications. Project-specific consultation would be done in advance of seeking project approval from the OEB.

Enbridge Gas's stakeholdering proposal includes a commitment to record comments from stakeholders and Indigenous groups participating in components 2 and 3 and the responses from Enbridge Gas to these comments, which would form part of the record for any subsequent IRP Plan/LTC application.

In addition, Enbridge Gas supports the creation of a "purpose-specific technical working group" comprised of interested parties (including OEB staff and Indigenous representation, as appropriate) to have discussions regarding IRP issues of more general impact. Enbridge Gas proposes that it would lead this technical working group and that topics to be addressed could include, among others, input on the consideration and implementation of IRP Pilot Projects, and the best approach to consider avoided costs and benefits for IRPAs and facility alternatives.

Enbridge Gas indicated that it does not support any approach to stakeholdering that would give stakeholders a "vote" in system planning decisions.

OEB Staff Submissions:

OEB staff agrees that final determinations as to which projects to bring forward for OEB approval to meet identified system needs are the responsibility of Enbridge Gas, and that any stakeholdering model in the IRP Framework should not alter this.

OEB staff supports the proposed three-component process and Enbridge Gas's proposal to keep a written record of consultation to inform future project-specific decisions.

OEB staff notes that Enbridge Gas's proposed stakeholdering approach is framed around system needs and how to best meet them. For efficiency, Enbridge Gas should use the information gathered through this stakeholdering process to support any subsequent applications for either IRP Plans or LTC projects. OEB staff also notes that the OEB's Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario include additional consultation provisions, largely focused on route and site selection, for certain hydrocarbon pipelines

and facilities. These would continue to apply where Enbridge Gas has determined that a hydrocarbon pipeline or facility covered by these Guidelines is the preferred solution to meeting a system need.

Enbridge Gas has also stated that it will follow the process for Indigenous consultation set out in the Guidelines for both facilities and non-facilities alternatives.[80] It is not clear to OEB staff that all of the provisions of the Guidelines are a good fit for non-facilities alternatives. For example, the Indigenous consultation section of the Guidelines includes a significant role for the Ministry of Energy, Northern Development and Mines. It should not be assumed the Ministry will be willing to play this role with respect to non-facilities projects (to which the Guidelines on their face do not apply). OEB staff invites Enbridge Gas to further clarify which elements of the Guidelines it proposes to follow in its reply argument.

OEB staff agrees with Enbridge Gas that a technical working group focused on broader topics associated with implementation of the IRP Framework is desirable, but proposes it be led by OEB staff to ensure objectivity and impartiality.

OEB staff submits that, as part of the implementation of the IRP Framework, the OEB should establish an IRP Implementation Advisory Committee, the purpose which would be to support the implementation of the IRP Framework. In developing this new committee, the OEB can take into account process learnings from the experience of the existing Demand-Side Management Evaluation Advisory Committee, which provides input into the development of technical evaluation reports to support DSM proceedings. OEB staff should work collaboratively with Enbridge Gas and other committee members to establish a terms of reference and identify priorities. This should help avoid unnecessary duplication of effort. Membership should also include independent experts, non-utility stakeholders, and possibly the Independent Electricity System Operator (IESO) as well as other observers as appropriate.

OEB staff submits that the specific tasks of this group would not necessarily need to be identified within the IRP Framework itself. However, some of the topics this group could potentially provide input to the OEB and Enbridge Gas on could include:

- Consideration and implementation of IRP pilot projects;
- Cost-benefit considerations regarding IRPAs;
- Learnings on specific types of IRPAs, and IRP implementation in other jurisdictions;
- Accounting treatment of IRPA costs.

[80] Argument in chief, para. 112.

10. IRPA Cost Recovery and Accounting Treatment Fundamentals

Enbridge Gas Approval Requested:

Regulatory treatment of project costs, including capitalization

Enbridge Gas requests "approval of like-for-like treatment of IRPA investments, such that longer term investments in IRPA Plans will be capitalized as rate base, with cost recovery similar to the facilities investments that they are replacing at the time of in-service (with IRPA costs amortized over their useful lives)." [81]

Enbridge Gas proposes that core costs of IRPAs would typically be capitalized to rate base (with the depreciation period determined on a project-specific basis, and aligned with the length of time over which the underlying IRPA is expected to provide peak load reduction).

Enbridge Gas defines three categories of costs associated with IRP implementation and its proposed cost treatment:[82]

- Incremental IRP administrative costs required to meet the increased workload related to IRP. Enbridge Gas proposes incremental IRP administrative costs be included in the Operating, Maintenance, and Administrative (OM&A) costs of its revenue requirement. While Enbridge Gas indicates that it is difficult to say with certainty what additional resources will be required at this time to support IRP, Enbridge Gas estimates that it will need roughly 12 to 15 additional full-time equivalents to integrate IRP into its planning processes, complete the incremental stakeholdering, assess identified system constraints for IRPA(s), and complete necessary IRP Monitoring and Reporting.[83]
- IRPA Project costs including the planning, implementing, administering, measuring and verifying the effectiveness of specific investments in IRPAs. Enbridge Gas proposes that the IRPA project-related costs be capitalized to rate base, and eligible for cost recovery once a project is in-service.
- Ongoing operational and maintenance costs including the regular costs incurred to operate and maintain a specific IRPA investment after the project is in-service. Enbridge Gas proposes that the costs related to the ongoing operating maintenance of an IRPA be included in Enbridge Gas's OM&A costs of its revenue requirement.

Enbridge Gas indicates that it believes existing accounting guidance is generally clear regarding the distinction of these cost categories, but that additional clarity could be

[81] Argument-in-Chief, p.14
[82] Exhibit I.Staff.22
[83] Exhibit I.GEC.6

sought if needed in the context of a specific IRP Plan application.[84] Enbridge Gas suggests that specific details regarding cost treatment are better addressed within IRP Plan applications. Enbridge Gas has indicated that if capitalization might not be a workable approach for specific IRPAs, it would bring forward an alternative accounting treatment within the context of an IRP Plan application.[85]

Enbridge Gas proposes that capitalization of costs could occur in cases where Enbridge Gas may not own or operate a tangible asset (e.g., enabling payments to service providers). Enbridge Gas has indicated that it follows U.S. Generally Accepted Accounting Principles (GAAP), which allows regulated entities to capitalize costs that would otherwise be expensed, if Enbridge Gas can demonstrate that the costs are probable of being recovered through future revenues derived from rates approved by the OEB (e.g. through a rate order). In this case, Enbridge Gas believes that regulatory rate base and audited financial statements would be aligned.[86]

Enbridge Gas indicates that it believes the cost recovery aspect of its IRP proposal could proceed independently of the ongoing OEB policy consultations on Utility Remuneration and Responding to Distributed Energy Resources.[87] On March 23, 2021, the OEB combined these consultations under the new title Framework for Energy Innovation (FEI): Distributed Resources and Utility Incentives (EB-2021-0118).[88]

Additional/Alternative Incentive Mechanisms

Enbridge Gas's IRP proposal does not propose specific incentives for IRP, and indicates that the simplest way to create a level playing field between IRPAs and facility investment projects is to ensure that Enbridge Gas is equally incented between the two types of investments. Enbridge indicates that it is open to considering additional incentives. Should the OEB wish to prioritize investments in IRPAs, it could consider adding an incentive above rate of return (e.g. based on the net benefits achieved). However, this topic of incentives could be studied at a future date.[89]

Enbridge Gas's position on incentives is tied to its proposal that it be eligible for recovery of all prudently incurred costs associated with IRPAs, and that ratepayers bear the performance risk associated with IRPAs. Enbridge Gas notes that, if the IRP Framework requires Enbridge Gas to bear additional risk associated with IRPAs, then Enbridge Gas would expect that commensurate adjustment to its allowed return on

[84] Technical Conference Transcript, Day 2, p.205.
[85] Transcript from day 3 of oral hearing, pp. 104-108
[86] Exhibit J 3.7; Transcript from day 3 of oral hearing, pp. 145-147
[87] Technical Conference Transcript, Day 2, p.206.
[88] Letter Re: Framework for Energy Innovation: Distributed Resources and Utility Incentives (EB-2021-0118), March 23, 2021
[89] Exhibit B, pp 33-34, Exhibit I.Staff.25

equity and/or incentives for such investments would be necessary to account for the heightened risk profile taken on by Enbridge Gas.[90]

OEB Staff Submissions:

Regulatory treatment of project costs, including capitalization

OEB staff agrees that incremental, non-project-specific IRP administrative costs may be included in the OM&A costs of Enbridge Gas's revenue requirement.

OEB staff agrees with Enbridge Gas that the IRP Framework should aim to address the issue of imbalanced financial incentives for utilities to pursue IRPAs and create a more level playing field with facility projects.

In comparison to traditional facility projects, many potential IRPAs have a higher share of costs that would not be capitalized under existing practices, which may give Enbridge Gas an inherent preference for facility projects, due to the financial benefits it will realize from earning a rate of return on the capitalized costs. Enbridge Gas's proposal therefore addresses a financial disincentive to pursue IRPAs.

The concept of removing financial disincentives to IRPA investment is supported in both the Guidehouse and EFG reports. EFG discusses several approaches, and suggests that capitalization of IRPA project costs earning a rate of return may be the best approach, due to its simplicity and similarity with traditional infrastructure solutions.[91] Guidehouse notes that Consolidated Edison in New York State is proposing a similar approach to capitalizing its future investments in IRPAs.[92]

OEB staff notes there are other approaches to removing financial disincentives to non-traditional solutions that are used in the electricity sector. These approaches are either in addition to capitalization, or as an alternative. A shared savings mechanism is one example which allows the utility to receive a portion of the benefits that arise from implementing a lower-cost IRPA instead of a facility project. This approach is used by Consolidated Edison in New York State for its electric operations (non-wires alternatives) and is being proposed for natural gas as well.[93]

OEB staff submits that rather than applying a pre-determined approach for the project costs associated with each IRP Plan in advance, the IRP Framework should state that each IRP Plan application should propose a cost recovery methodology for project costs, along with accounting treatment, and supporting rationale. OEB staff does not

[90] Exhibit I.EP.6
[91] EFG Report (Exhibit M2.GEC-ED), pp.44-47
[92] Guidehouse report, pp. 47-48
[93] Guidehouse report, pp. 50-51

support an approach that provides blanket approval of capitalization of all IRP Plan project costs. Rather, capitalization project costs should be considered on a case-by-case basis. OEB staff accepts that capitalization in the near term may be preferred given its relative simplicity, and in recognition of the timing of this application relative to other items ongoing at the OEB. Overall, however, OEB staff is of the view that a case-by-case approach will enable Enbridge Gas's portfolio of IRP Plans to be developed over time, while leaving options open for alternative approaches in future.

In OEB staff's view, a useful guideline for assessing the need for and merits of alternative approaches to cost recovery, including capitalization, is the "requisite relationship test" set out in the OEB's Report of the Board: Regulatory Treatment of Infrastructure Investment in Connection with the Rate-Regulated Activities of Distributors and Transmitters in Ontario (EB-2009-0152). In that report, the OEB indicated that applicants seeking OEB approval of an alternative cost recovery mechanism, such as a project-specific return on equity and project-specific capital structure, are required to demonstrate that a requisite relationship exists between the alternative mechanisms requested and the demonstrable risks and challenges faced by the applicant in relation to the investment being made[94]. While this policy was originally developed in respect of traditional infrastructure investments to accommodate renewable generation and smart grid development, the OEB noted that innovative approaches to cost recovery would be "potentially also applicable in relation to other types of projects in appropriate circumstances". The current circumstance -- consideration of non-traditional alternatives -- is entirely appropriate, in OEB staff's view.

OEB Staff submits that, over time, consideration of alternative cost recovery treatments for Enbridge Gas's IRP Plans could extend beyond capitalization. OEB staff notes the OEB's FEI policy consultation will consider developing appropriate incentives for utilities to adopt and deploy non-traditional solutions. Incentives other than capitalization may prove more effective at balancing risks and reward, strengthen incentives for performance and delivery of outcomes, or yield other benefits. Accordingly, OEB staff's views on Enbridge Gas's approach to capitalizing IRP Plan project costs may evolve based on developments within and outcomes arising from the FEI consultation.

Solution in Best Interest of Customers

OEB staff notes that the proposed approach to cost recovery and accounting treatment will not always ensure that utility and customer interests are in complete alignment (e.g., Enbridge Gas may earn a rate of return on a smaller amount of capital on an IRP Plan

[94] Report of the Board: The Regulatory Treatment of Infrastructure Investment in connection with the Rate-regulated Activities of Distributors and Transmitters in Ontario. EB-2009-0152, p iii.

than it would have for a traditional facility project). Regardless of the accounting treatment and cost recovery approach, the OEB should expect Enbridge Gas to propose the solution to a system need that is in the best interest of its customers.

11. Future IRP Plan Applications

Enbridge Gas Approval Requested: Enbridge Gas requests "approval of a LTC-like process to review and approve a proposed IRP Plan designed to meet an identified need/constraint, with Enbridge Gas being given flexibility to adjust the IRP Plan without further OEB review except where the costs being adjusted are 25% or greater of the total approved cost."[95]

Enbridge Gas has proposed to make IRP Plan applications to the OEB in the future in all instances where the total cost of IRP Plans exceeds the LTC materiality threshold (currently $2 million, proposed to increase to $10 million).[96] IRP Plan applications below this threshold would be at Enbridge Gas's discretion.

Enbridge Gas indicates that it expects that its IRP Plan application would include information similar to what is found in a facilities LTC application, including "purpose, need and timing type evidence (such as the forecast need/constraint being addressed, description of the IRPAs, forecast impacts from the IRPAs, costs of the IRPAs, and implementation timing), discussion of alternatives (why the IRP Plan was selected), land and environmental issues (where relevant), Indigenous consultation (as appropriate) and conditions of approval."[97]

Enbridge Gas indicates that it is "seeking to establish similar assurances for investments in natural gas IRPA(s) as the OEB Act (under sections 90 and 91) affords natural gas utilities through LTC applications for facilities, assuming associated costs of investment in IRPA(s) have been incurred prudently".[98]

Enbridge Gas submits that it should not bear the risk that an approved IRP Plan may not succeed in creating the forecast peak demand reduction, as IRP is a new activity, and it is being pursued for the benefit of Enbridge Gas's ratepayers.[99]

Enbridge Gas indicates that, while the IRP Plan approval would not itself be the mechanism for cost recovery, it might be appropriate for the OEB to invite submissions on Enbridge Gas's proposed cost allocation treatment (Enbridge Gas proposes that this would generally be the same cost allocation approach as would have been used for the

[95] Argument-in-Chief, p. 14
[96] Environmental Registry Proposal 019-3041: Proposed Revision to Ontario Energy Board (OEB) Leave to Construct Cost Threshold for Hydrocarbon Pipelines
[97] Argument-in-Chief, pp. 40-41
[98] Argument-in-Chief, p.41
[99] Argument-in-Chief, p. 18

facility project that would otherwise have been needed) within the IRP Plan approval process, because that could influence the positions of parties.

Prior approvals on IRP planning decisions

Enbridge Gas specifically notes that it is not seeking approvals in relation to OEB review process(es) of the steps and decisions leading up to its request for approval of either an IRP Plan or a LTC application.[100] Enbridge Gas indicates that it believes its stakeholdering process will provide parties with meaningful opportunity to provide input with sufficient time for Enbridge Gas's consideration, prior to Enbridge Gas bringing forward a project-specific application.

OEB Staff Submissions:

Form of approval

OEB staff supports the concept of developing a new "IRP Plan approval" that may bear some resemblance to the LTC approval process, and the proposed materiality threshold. As IRP Plans will be a new approach to meeting system needs for Enbridge Gas, OEB staff believes an explicit review and approval of IRP Plans is in the best interests of Enbridge Gas and its customers. Given the limited experience with IRPAs, an OEB approval (and the implications for recovery of prudently incurred costs for approved projects) makes it more likely that Enbridge Gas will consider IRPAs.

As Enbridge Gas gains more experience with IRPAs, it may be the case that an explicit IRP Plan approval would no longer be required, and Enbridge Gas's proposed spending on IRPAs could be reviewed solely within the context of Enbridge Gas's rates applications. The need for continued use of an IRP Plan approval can be considered during a future review of the IRP Framework.

OEB staff agrees that the information to be filed in support of an IRP Plan application should include the matters proposed by Enbridge Gas. In addition to the items listed above by Enbridge Gas, OEB staff submits that this information should also include a record of relevant feedback from stakeholder and Indigenous groups at previous steps of IRP assessment,[101] and a proposed approach to project cost recovery, cost allocation, and evaluation and monitoring.

Although the OEB's review of IRP Plans could bear some similarity to a LTC application, it is important to note there is no provision in the OEB Act comparable to section 90 that would apply to most IRPAs (the exception being IRPAs that include a

[100] Argument-in-Chief, p. 15
[101] Argument-in-Chief, pp. 34-35.

facilities build that requires LTC approval).

While the IRP Plan approval would not directly lead to a rate order, it would have ratemaking consequences regarding likelihood of recovery of costs subsequently incurred, and rate allocation might be discussed. As Enbridge Gas notes, any OEB approval of an IRP Plan would therefore be pursuant to its rate making power under section 36.

As a rates proceeding, presumably the OEB would be approving the costs of the IRP Plan for recovery through rates (though under Enbridge Gas's proposal, these costs would first go into a deferral account for later disposition through rates, and an immediate amendment to the base rate order would not be required). Unlike a section 90 approval, however, it would not be a "leave" to build something (and indeed for non-pipeline IRP Plans no leave to construct would be required.)

OEB staff submits that the order for an IRP Plan approval would likely include approval of a budget and cost recovery approach. OEB staff invites Enbridge Gas to provide further detail on its proposal in reply argument, in particular related to exactly what decision or order the OEB would issue in an IRP Plan proceeding (including how that decision or order could fall under section 36).

OEB staff generally supports Enbridge Gas's proposal that the default approach to rate class allocation for an IRP Plan should be the same as would have been used for the facility project that would otherwise have been needed. Enbridge Gas's IRP Plan application should indicate if it proposes to deviate from this approach. The OEB would retain the discretion to impose a different allocation depending on the circumstances.

Enbridge Gas may also seek approval for a joint facility/IRPA solution that triggers the s.90 Leave to Construct approval requirement. In such cases, Enbridge Gas should bring forward both elements of the solution to the OEB for approval as a combined application.

Adjustment to Approved IRP Plans and Risk Allocation

OEB staff agree that Enbridge Gas should have flexibility in adjusting its investments in approved IRPAs, which is consistent with a recommendation in the Guidehouse report.[102]

However, OEB staff do not support Enbridge Gas's proposal that the IRP Framework include a specific requirement for Enbridge Gas to return to the OEB when the costs being adjusted are 25% or greater of the original cost (with the implicit assumption that cost increases that are less than 25% of the originally indicated cost are likely to be

[102] Guidehouse report, p.5

approved when Enbridge Gas seeks cost recovery).

OEB staff submits that the IRP Framework could include the following considerations related to IRP Plans and risk allocation:

- Prudently incurred costs associated with an approved IRP Plan would be eligible for cost recovery (through the IRP Costs Deferral Account, at least until rebasing – see section 13, "IRP Costs Deferral Account"). The OEB acknowledges that there may be a greater degree of performance and cost risk associated with IRP as a new activity, in comparison with facility projects, and will take this consideration into account in its prudence review.
- Based on its implementation, evaluation and monitoring of "in-flight" IRP Plans {see section 12, "Monitoring and Reporting"), Enbridge Gas should take appropriate action to adjust its investments in approved IRP Plans as needed.
- Enbridge Gas should have the option of applying to the OEB for amendment of an approved IRP Plan, if in its view, circumstances warrant this action.

OEB Approvals Prior to Project-Specific Approval

The issue of whether any formal OEB review or approval of Enbridge Gas's planning determinations regarding the role of IRPAs should be required, in advance of an IRP Plan/LTC application, was discussed extensively throughout this proceeding. The primary concern raised with Enbridge's proposal was that by the time Enbridge Gas brings forward a project application, the OEB will have a limited scope of action if it believes that Enbridge Gas has not chosen the best option, but alternative options can no longer be implemented without compromising reliability. Enbridge Gas indicated that it believes this risk to be low, if Enbridge Gas follows the planning approach in its IRP proposal, including annual status updates to its Asset Management Plan, and consideration of stakeholder feedback.[103]

OEB staff submit that the IRP Framework should adopt Enbridge Gas's proposal that no explicit OEB approval of IRP-related decisions would be required until Enbridge Gas requested a specific project approval (IRP Plan/LTC). Enbridge Gas has acknowledged that it bears the risk that the OEB might not approve an as-filed LTC application in the circumstance where it is determined that an IRP Plan would have been a better approach.[104] If the OEB believes that this is an important principle to emphasize, it could be noted explicitly in the IRP Framework. Depending on the circumstances, if the OEB determines (in its review of a project-specific application) that Enbridge Gas failed to follow the guidance in the IRP Framework and this results in cost consequences for its

[103] Argument-in-Chief, pp.15-16
[104] Argument-in-Chief, p. 16. While not noted by Enbridge Gas, the same risk could also apply to an IRP Plan application.

customers, the OEB's determination in a project-specific application could potentially include disallowing recovery of some project costs (if the OEB determines that a project that would otherwise not be in the best interest of its customers must go ahead to avoid reliability concerns).

12. Monitoring and Reporting

Enbridge Gas Approval Requested

Enbridge Gas requests "approval of the proposed annual IRP reporting from Enbridge Gas that will address IRP integration into existing planning processes, IRPA effectiveness, IRP pilot projects planned or underway, IRP stakeholdering and IRPA implementation".[105]

The annual IRP report would include including a summary of IRP stakeholdering, updates on IRP pilot projects, updates on incorporating IRP into AMP, status updates on potential and approved IRP plans, and summaries of in-flight IRPAs, including expenditures and actual peak demand/energy savings compared to forecast.

Enbridge Gas indicates that the annual IRP report could be filed with the OEB as part of either its annual Rates application or Non-Commodity Deferral Account Clearance and Earnings Sharing Mechanism application.

OEB Staff Submissions:

OEB staff submits that the list of items Enbridge Gas proposes to include in its annual IRP report is appropriate. As discussed in section 7, "Types of Available IRPAs", OEB staff also submits that Enbridge Gas should include a chapter on best available information on IRPAs as part of its annual IRP report.

OEB staff submits that the annual IRP report should be filed as part of the proceeding in which Enbridge Gas seeks to clear the balance in its proposed IRP Costs Deferral account (section 13, "IRP Costs Deferral Account"), which Enbridge Gas proposes will be its Non-Commodity Deferral Account Clearance and Earnings Sharing Mechanism application.

As discussed in section 11, "Future IRP Plan Applications", the IRP Framework should indicate that Enbridge Gas is expected to take appropriate action regarding in-flight IRPAs based on its implementation, evaluation, and monitoring.

As indicated in section 10, "IRPA Cost Recovery and Accounting Treatment Fundamentals", the FEI consultation aims to develop appropriate incentives for utilities to adopt and deploy non-traditional solutions, which may contemplate recovery of

[105] Argument-in-Chief, p. 15

certain revenues in accordance on the basis of performance against agreed-upon metrics. Accordingly, the type and extent of performance related information that Enbridge Gas may be required to file with the OEB may evolve depending on the outcome of the FEI policy consultation.

13. IRP Costs Deferral Account

Enbridge Gas Approval Requested

Enbridge Gas requests "approval of an IRP Costs Deferral Account which will track all incremental IRP-related costs not included in base rates (capital, operating and administrative costs) during the current deferred rebasing term".[106] Enbridge Gas submits that the costs of IRPAs and IRP Pilot Projects are incremental costs not included in Enbridge Gas's base rates during the current deferred rebasing term.[107]

Enbridge Gas would seek clearance of the IRP Costs Deferral Account on an annual basis as part of its Non-Commodity Deferral Account Clearance and Earnings Sharing Mechanism application.

Enbridge Gas indicates that this deferral account may still be needed beyond 2023 to track IRP program costs not included in base rates in 2024 and through the next deferred rebasing term.

OEB Staff Submissions:

OEB staff supports Enbridge Gas's proposal to establish an IRP Costs Deferral Account, to be cleared on an annual basis. OEB staff notes several caveats regarding the treatment of costs.

Enbridge Gas has always had a responsibility to identify the best option to meet system needs. It should not be assumed as a starting point that any assessment of alternatives in system planning represents incremental administration costs; however, OEB staff agrees that there will be incremental administration costs under the IRP Framework. The prudency of incurred administration costs related to IRP, and the degree to which they are incremental, can be reviewed during the application to clear the IRP Costs Deferral Account.

OEB staff also notes that if IRP Plans are being developed as alternatives to facility projects that would have been implemented during the current deferred rebasing term, project costs associated with IRP Plans would not be incremental and should not be eligible for cost recovery through this deferral account. The degree to which this

[106] Argument-in-Chief, p.15
[107] Argument-in-Chief, p.44

consideration would apply would need to be addressed on a case-by-case basis for specific IRP Plans.

OEB staff recommends that, as part of its Decision and Order in this proceeding, the OEB direct Enbridge Gas to submit the necessary Draft Accounting Order for the IRP Costs Deferral Account, based on any guidance provided in the Decision in this proceeding on the nature of this account.

The approach to cost recovery for IRP may change at rebasing. The expected costs associated with all aspects of IRP (administration costs and project costs for system needs that would be addressed during the rebasing term) should be incorporated into Enbridge Gas's rebasing application to the degree possible. The need for continued use of the IRP Costs Deferral Account as a cost recovery mechanism can be reviewed in the rebasing application. At that time, the OEB may be in a position to opine on any changes to the cost recovery methodology for future IRPAs, including whether Enbridge Gas should remain whole for the revenue requirement impact of all project-specific IRPA costs during the next IRM term.

14. IRP Pilot Project Proposal

Enbridge Gas Approval Requested

Enbridge Gas requests "approval for Enbridge Gas to develop two pilot projects to be developed and initiated by the end of 2022 – one of which will apply the new IRP Framework through development and implementation of an IRP Plan to meet an identified need/constraint {with an IRPA or combination of IRPAs to be determined} and the other of which will test a promising IRPA such as Demand Response (DR), along with Automated Metering Infrastructure (AMI), if possible."[108]

Enbridge Gas plans to engage with stakeholders and Indigenous groups before making a determination about what IRP Pilot Projects to pursue and also expects that the proposed technical working group would provide input.

Enbridge Gas believes that a reasonable timeline to identify, design, and deploy the IRP Pilot Projects will see initial steps beginning within three months of the issuance of the OEB's IRP Framework, with deployment by the end of 2022.

Enbridge Gas indicates that it would likely seek approval from the OEB for its proposed IRP Pilot Projects through IRP Plan applications.[109]

Enbridge Gas submits that it may be appropriate to wait until information is gained

[108] Argument-in-Chief, p.15
[109] Argument-in-Chief, p.40

through these Pilot Projects before proceeding to implement further IRP Plans.

OEB Staff Submissions:

OEB staff supports IRP Pilot Projects and believes this may be the most important element of the IRP Framework, at least initially. The Guidehouse report noted that initial non-pipes solutions in New York State were largely treated and funded as pilots (e.g. Consolidated Edison's Gas Demand Response pilots),[110] while the EFG report noted that most jurisdictions seriously considering gas and electric IRPAs have started with pilot projects to field-test and gain experience with planning processes.[111] Pilots will allow Enbridge Gas to gain experience with the mechanics of the IRP Framework, including integrating IRP into system planning to address specific system needs, and to assess the viability of specific IRPAs for Enbridge Gas's system.

OEB staff supports the general intent of Enbridge Gas's proposed pilots (meeting an identified need/constraint, and testing a promising IRPA) but does not suggest that specifics of the IRP Pilot Projects need to be established within the IRP Framework. OEB staff supports Enbridge Gas's perspective that any future IRP Pilot Project should be sited in an area that includes a broader diversity of customer types and complexities so as to better test deployment.[112] OEB staff also found EFG's suggestions about trying to learn as much as possible from pilots by potentially pursuing a range of technologies and/or resource acquisition approaches helpful, and encourages Enbridge Gas to consider these suggestions.[113]

Enbridge Gas should initiate its detailed consideration of IRP Pilot Projects shortly after the issuance of the IRP Framework Input from the proposed IRP Implementation Advisory Committee should be sought and considered by Enbridge Gas as it develops IRP Pilot Projects.

Enbridge Gas has proposed deploying IRP Pilot projects by the end of 2022. Given that the OEB will need to approve Enbridge Gas's pilot proposal, Enbridge Gas should be required to bring forward its pilot proposal for OEB approval within twelve months of the establishment of an IRP Framework. As Enbridge Gas is proposing that at least one of the two pilots would be used to meet an identified system need, OEB staff submits that OEB approval of both pilots could be requested jointly under the proposed new IRP Plan Approval (section 11, "Future IRP Plan Applications").

Subject to an IRP Plan Approval and prudency review of actual costs, OEB staff supports full cost recovery of Enbridge Gas's annual revenue requirement associated

[110] Guidehouse report, p. 19
[111] EFG report, pp. 27-28
[112] Exhibit I. Staff.12.
[113] EFG Presentation, Presentation Day, February 19, 2021, slides 30-31

with these pilots for any in service period leading up to the next rebasing year.

OEB staff does not agree that Enbridge Gas needs to wait for results from Pilot Projects before developing other IRP Plans, if Enbridge Gas determines that an IRP Plan is the best approach to meeting a system need with technologies and/or resources it is already familiar with, such as demand-side management. However, OEB staff agrees that Enbridge Gas will be able to refine its approach as it gains experience from IRP Pilot Projects.

15. AMI Acknowledgment

Enbridge Gas Approval Requested

Enbridge Gas requests that the OEB Framework include "an indication of the OEB's support for the role of AMI as an important enabler of successful IRP and IRPAs."[114]

Enbridge Gas indicates that AMI will allow for the collection of the hourly data that Enbridge Gas requires to not only target IRPAs effectively but also to monitor and verify their effectiveness to ensure that the IRPAs are performing as expected and to ensure peak period demand reductions are materializing. Without AMI, Enbridge Gas indicates that it will need to rely on system modelling to assess IRPAs, which will drive the need to overbuild the IRPA, as well as robust additional EM&V work, both of which drive up costs for IRPA(s).[115]

Enbridge Gas does not request approval for AMI funding within this proceeding, but indicates that it is considering requesting broad deployment of AMI in the future in a separate proceeding, likely its 2024 rebasing application.[116] Enbridge Gas also indicates that it may request approval to target key geographic areas for AMI deployment where future constraints are identified and where AMI might be useful in evaluating IRPAs' effectiveness.

OEB Staff Submissions:

OEB staff submits that the IRP Framework should indicate that monitoring and metering technologies, including advanced metering infrastructure, can enable more effective consideration, implementation, and evaluation of IRPAs in meeting system needs, and that the expected benefits of these enabling technologies should be considered along with their costs.

OEB staff agrees that, all else being equal, IRP can be done more effectively if AMI is in place. However, the value AMI adds will depend on the specifics of an IRP plan and the

[114] Argument-in-Chief, p. 15.
[115] Exhibit B, pages 35-36. See also Exhibit I.Staff.4(f)
[116] Argument-in-Chief, pp. 47-49.

granularity of data required. Other, less expensive, monitoring solutions (at a level of specificity less granular than the individual customer, e.g. gate stations) may be sufficient, depending on the circumstances.

The OEB should make it clear in its Decision that any reference to AMI in the IRP Framework should not be interpreted as specific support for funding to deploy AMI, within specific areas or on a franchise-wide basis.

16. Next Steps

Enbridge Gas Proposal

Enbridge Gas does not make a specific approval request on this topic, but does outline its proposed next steps following the issuance of an IRP Framework:

- Begin integrating IRP into the Company's existing asset planning process;
- Develop, consult on, and design IRP Pilot Projects and bring them forward to the OEB for approval through an IRP Plan application;
- File its first AMP including initial IRP analysis in Q4 2022, to support both its 2023 Rate Case and 2024 Rebasing evidence

Enbridge Gas indicates its preference is to complete the IRP Pilot Projects before implementing further IRP Plans. Enbridge Gas proposes that any review of the IRP Framework not take place until at least five years have passed.

OEB Staff Submissions:

As noted earlier, OEB staff does not believe that IRP Plans necessarily need to wait until IRP Pilot Projects are completed before any further integration of IRP in system planning.

OEB staff submits that implementation items for Enbridge Gas in the IRP Framework should include:

- Filing a Draft Accounting Order for the IRP Costs Deferral Account to track incremental IRP-related costs not included in base rates;
- Filing an annual IRP report as part of the initial clearance of this deferral account, including a chapter on best available information on IRPAs;
- Filing an application with the OEB requesting approval of IRP Pilot Projects within twelve months of the establishment of an IRP Framework;
    - This should include documenting Enbridge Gas's approach and assumptions to cost-effectiveness analysis of IRPAs and facility alternatives, based on the guidance in the IRP Framework.
- Evaluating and comparing IRPAs with facility projects as appropriate in Leave to

Construct/IRP Plan applications, based on best available information, including a cost-effectiveness approach based on the principles in the IRP Framework;

- Filing an AMP that includes initial IRP analysis based on the IRP Assessment Process described in the IRP Framework in Q4 2022, to support both its 2023 Rate Case and 2024 Rebasing evidence;
- Reviewing Enbridge Gas's economic feasibility policies associated with system expansions, to ensure that system reinforcement costs are based on a forward-looking approach that accounts for system needs/constraints identified in Enbridge's Asset Management Plan, and submitting revised policies at rebasing.

In this submission, OEB staff have also recommended that, under the IRP Framework, the OEB establish an IRP Implementation Advisory Committee.

OEB staff has submitted that the IRP Framework for Enbridge Gas should be high-level in nature, to recognize that the details of Enbridge Gas's approach to IRP will evolve based on the learnings in the initial years of the Framework. Changes to the Framework may still be necessary during this period should circumstances warrant.

OEB staff submits that the timing for a more comprehensive review of the IRP Framework, if needed, could potentially be aligned with the end date of Enbridge Gas's pending post-2021 DSM Plan, which is expected to cover three to six years, including 2022.

All of which is respectfully submitted.