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

BY EMAIL

January 12, 2021

Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4

Attention: Ms. Christine E. Long, Registrar

Dear Ms. Long:

Re: OEB Staff Interrogatories to Enbridge Gas Inc.
Enbridge Gas Inc. – Integrated Resource Planning Proposal
OEB File Number: EB-2020-0091

Pursuant to Procedural Order No. 7, please find attached the interrogatories of OEB staff to Enbridge Gas Inc. (Enbridge Gas) in the above referenced proceeding. This document has been sent to Enbridge Gas Inc. and all intervenors.

Yours truly,

Original signed by

Michael Parkes
Project Advisor, Application Policy and Conservation

cc: All parties in EB-2020-0091

Encl.

ONTARIO ENERGY BOARD

OEB Staff Interrogatories to Enbridge Gas Inc.

Enbridge Gas Inc. – Integrated Resource Planning Proposal

EB-2020-0091

January 12, 2021

NOTE ON TERMINOLOGY AND ISSUES:

OEB staff has grouped its interrogatories using the Issues List included as Schedule A of the OEB's Decision on Issues List and Procedural Order No. 2 of July 15, 2020). In cases where it may not be clear as to which Issue an interrogatory on the filed evidence should be grouped under, OEB staff has indicated the approach it has used.

In its interrogatories, OEB staff has attempted to use the terms below as defined by the OEB within its Decision on Issues List and Procedural Order No. 2:

- **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.

Issue 1: What is Integrated Resource Planning (IRP) and what should the comprehensive goals of IRP be?

IR 1-Staff-1-Enbridge

Ref: Exhibit A, Tab 13 / p. 10 of 24; Exhibit B / p. 18 of 46

Preamble:

Enbridge Gas proposes a goal of IRP in its initial application as "aimed at reviewing and implementing alternatives that reduce natural gas in-franchise peak period demand growth", and in its additional evidence as "a planning strategy underpinned by the Guiding Principles to consider facility and non-facility alternatives in tandem which address long-term system constraints/needs such that an optimized and economic solution is proposed to meet the identified constraint or need."

Questions:

a) Does Enbridge Gas's original proposal that consideration of IRPAs would be limited to facility expansion/reinforcement projects and focused on reducing natural gas in-franchise peak period demand growth still apply?

(note: OEB staff has additional questions regarding the proposed scoping to facility expansion/reinforcement projects and the focus on reducing natural gas in-franchise peak period demand growth; however, these are filed under issue 2 (integration of IRP into system planning)

Issue 2: What is the appropriate process and approach for incorporating IRP into Enbridge Gas's system planning process, including scope, timing, stakeholder consultation, approval process and evaluation?

(note: OEB staff interrogatories regarding general considerations for incorporating IRP into system planning, as well as interrogatories on scope, timing, and stakeholder consultation are included under this issue. Interrogatories regarding approval process and evaluation are included under Issues 3 and 6, respectively)

Overall approach to incorporating IRP into system planning, including demand forecasts and needs identification

IR 2-Staff-1-Enbridge
Ref: Exhibit B / pp. 12-17, 29 of 46

Preamble:

Enbridge Gas provides an Illustrative Process Plan that appears to be scoped to its infrastructure planning responsibilities. However, on p. 29, Enbridge Gas notes that it will consider long-term natural gas supply IRPAs if they meet the Gas Supply Guiding Principles as outlined in Enbridge Gas's 5 Year Gas Supply Plan.

a) Please clarify whether Enbridge Gas's IRP proposal (and Illustrative Process Plan) is intended to encompass consideration of IRPAs in the planning processes for both infrastructure needs (currently addressed largely through the Asset Management Plan) and gas supply needs (currently addressed largely through the 5 Year Gas Supply Plan), or only infrastructure needs (i.e. any consideration of natural gas supply IRPAs by Enbridge Gas would initially be done in the context of the IRPA's potential ability to meet an infrastructure need). Please provide the rationale behind Enbridge Gas's proposed approach.
b) Please describe the key linkages between the infrastructure planning process and the gas supply planning process, with an emphasis on any considerations relevant to the role of IRPAs. For example, if an IRPA was under consideration to address an infrastructure planning need, could and would Enbridge Gas take into account as part of its evaluation the impact (if any) of this IRPA on its gas supply needs and costs?

IR 2-Staff-2-Enbridge
Ref: Exhibit B / p. 12-17 of 46

Additional Public Documents: Enbridge Gas Inc. 5 Year Gas Supply Plan, May 1, 2019 (EB-2019-0137)

Preamble:

Enbridge Gas provides an illustrative process plan explaining how Enbridge Gas will incorporate IRP into its planning processes. OEB staff wish to ensure that it has an understanding of Enbridge Gas's current planning process for the "Generic Planning" stages in this process plan that are not discussed further as part of Enbridge Gas's IRP proposal, specifically demand forecasting and needs identification.

Enbridge Gas describes its long-term demand forecast and annual demand forecast, and the key factors that go into these forecasts.

Questions:

a) Do the demand forecasting practices described in Enbridge Gas's 5 Year Gas Supply Plan remain accurate descriptions of Enbridge Gas's procedures for forecasting both annual demand and design day demand for the EGD and Union rate zones, and the factors Enbridge Gas considers in these forecasts (e.g., existing firm demand, customer growth, weather, DSM impacts, system design day requirements, customer consumption patterns, economic outlooks, public policy)? If not, please describe any changes to forecasting practices Enbridge Gas has made in these areas.
b) Enbridge Gas notes (Exhibit B, p. 14) that it completes a long-term demand forecast. How long a time period does Enbridge Gas's long-term demand forecast cover and how often is it updated? How, if at all, do the factors and methodology underlying the long-term demand forecast differ from those used for the annual demand and design day demand forecasts that are described in the 5 Year Gas Supply Plan?

IR 2-Staff-3-Enbridge
Ref: Exhibit B / p. 14 of 46; Exhibit A, Tab 13, Page 11 of 24 (load forecast as a screening criterion); Exhibit A, Tab 13, Page 19 of 24 (AMI)

Additional Public Documents: Enbridge Gas Inc. 5 Year Gas Supply Plan, May 1, 2019 (EB-2019-0137); Enbridge Gas Inc. 2021-2025 Utility System Plan and Asset Management Plan (filed October 15, 2020; EB-2020-0181, Exhibit C, Tab 1, Schedule 1 (Utility System Plan), Exhibit C, Tab 2, Schedule 1 (Asset Management Plan)).

Preamble:

Enbridge Gas notes that "when Enbridge Gas determines that its current facilities cannot balance the peak demand forecast with existing system facilities that can deliver the forecasted volumes safely and reliably, a system need is identified."

Questions:

a) The demand forecasts in Enbridge Gas's 5 Year Gas Supply Plan are for the EGD, Union North West, Union North East, and Union South rate zones in their entirety. Please describe how these high-level demand forecasts in Enbridge Gas's 5 Year Gas Supply Plan are refined to produce more granular demand forecasts of smaller geographic areas to inform the "Needs Identification" phase of Enbridge Gas's IRP Process Plan. Please clarify how, if at all, the inputs from the 5-Year Gas Supply Plan are supplemented with more detailed local information (metering data, knowledge of customer numbers/energy trends, etc.).
b) Is the Asset Management Planning process that is described in Enbridge Gas's 2021-2025 Asset Management Plan the primary tool that Enbridge Gas will use for the "Needs Identification" phase of the IRP Process Plan? Please list and briefly describe any other tools or processes that play a material role in the "Needs Identification" phase.
c) Does Enbridge Gas believe that most, if not all, system needs where IRPAs could potentially be a solution would be identified and described through the Asset Management Plan? If not, please identify circumstances where a system need may not be identified and described through the Asset Management Plan
d) Enbridge Gas's 2021-2025 Asset Management Plan (section 5.1.6 for distribution system reinforcement and section 5.1.7 for transmission system reinforcement) describes how Enbridge Gas uses demand forecasts as an input to identify specific needs for system reinforcements. Does this document provide the best overview of how Enbridge Gas identifies needs for system reinforcement, and do the processes described regarding needs identification remain accurate? If not, please describe any changes or additional information regarding Enbridge Gas's process for needs identification.
e) What level of geographic specificity is Enbridge Gas's needs identification process conducted at?
f) Enbridge Gas notes that "the deployment of an AMI system…will allow for the collection of the hourly data that Enbridge Gas requires to…target IRPAs effectively". Does this refer to improving the accuracy of the needs identification phase (better data on peak demand and capabilities of existing infrastructure to meet this demand), improving the ability of Enbridge Gas to identify potential IRPAs (e.g. customer or measure-specific information on possible peak demand reductions) or both? Please describe as needed.

IR 2-Staff-4-Enbridge
Ref: Exhibit A, Tab 13 / p. 10 of 24

Preamble:

Enbridge Gas proposes a goal of IRP as "aimed at reviewing and implementing alternatives that reduce natural gas in-franchise peak period demand growth".

Questions:

a) Is "peak period demand growth" the sole driver of system needs, at least for facility expansion/reinforcement projects? Is the level of volumetric consumption ever a driver of system needs?
b) Enbridge Gas proposes that IRP should be aimed at reducing "in-franchise peak period demand growth". Is ex-franchise demand (peak period or otherwise) a contributor or driver of any system needs identified through the Needs Identification process? Please describe.
c) Is Enbridge Gas' proposal to focus on in-franchise peak period demand growth based on (1) the assumption that ex-franchise demand has minor or no impacts on system needs and infrastructure costs; (2) a perceived greater difficulty of developing IRPAs that could reduce peak period demand for ex-franchise customers, or both? Please describe.

Timing Considerations Involving IRPAs

IR 2-Staff-5-Enbridge
Ref: Exhibit C / pp. 6-7 of 26; Exhibit M2.GEC-ED, pp. 16-18 of 55

Additional Public Documents: Enbridge Gas Inc. 2021-2025 Utility System Plan and Asset Management Plan (filed October 15, 2020; EB-2020-0181, Exhibit C, Tab 1, Schedule 1 (Utility System Plan), Exhibit C, Tab 2, Schedule 1 (Asset Management Plan)).

Preamble: In its expert evidence, Energy Futures Group (EFG) states that a longer-term needs forecast (e.g. ten years) may allow for more consideration of IRPAs, and presents an example (from Green Mountain Power) of a summary of longer-term needs and planning status, that it believes could be a useful model for Ontario. Enbridge Gas states that it generally agrees with EFG that a ten-year time horizon for forecasting in-franchise system needs is appropriate to ensure adequate planning, deployment and adjustments can be undertaken, but notes that there is more uncertainty in forecasts and projection of system needs beyond the 3-5 year time period.

Questions:

a) The 2021-2025 Asset Management Plan notes (p. 20) that the scope of the Asset Management Plan had been adjusted from 10 years to five years due to the impact of COVID-19 to resourcing and potential uncertainty surrounding longer term forecasting {previous Asset Management Plans had included a forecast 10-year capital investment plan, including business cases for projects within the 10-year capital investment plan, and a brief description of projects not included in the capital investment plan where solution scopes are still under development}. Does Enbridge Gas intend to adjust the scope of the Asset Management Plan back to 10 years? Why or why not?
b) If Enbridge Gas intends to keep the scope of the Asset Management Plan at 5 years, would it still undertake longer-term demand forecasting and needs identification (e.g. on a 10-year basis), and if so, in what format?
c) Is inclusion within the Asset Management Plan the first stage at which a potential system need (and proposed "baseline" solution) would come to the attention of the OEB and other stakeholders outside of Enbridge Gas? If not, please explain.
d) Does Enbridge Gas have any views on EFG's suggestion regarding providing a public summary of longer-term needs and planning status? If Enbridge Gas supports this idea, does Enbridge Gas believe this information would be best presented as part of its Utility System Plan/Asset Management Plan, its proposed annual IRP monitoring report, or in a separate process?
e) What information does Enbridge Gas propose to provide to the OEB and stakeholders regarding the status of IRPA consideration in response to identified system needs, and when? (e.g. Enbridge Gas's determination based on its binary screening criteria as to whether any form of IRPA should be considered further; Enbridge Gas's plans/actions for further IRPA analysis for system needs that passed the initial screening, etc.)

   Does Enbridge Gas believe this information would be best presented as part of its Utility System Plan/Asset Management Plan, its proposed annual IRP monitoring report, or in a separate process?
f) Does Enbridge Gas believe that its determinations regarding system needs and the potential role of IRPAs should be subject to formal OEB review at any stage prior to Enbridge Gas's application for project-specific approval (IRP Plan/Leave to Construct)? Please explain why or why not.

Scope of Consideration of IRPAs in System Planning

(Note: OEB staff has included interrogatories as to which types of system need require any consideration of IRPAs as part of Issue 2, consistent with the grouping of issues in the Guidehouse expert report commissioned by OEB staff. This includes interrogatories

on Enbridge Gas's proposal that IRP should be limited to facility expansion/reinforcement projects, and Enbridge Gas's proposed criteria that could exclude any form of IRP consideration (safety, timing, project-specific considerations, customer-specific builds, community expansion & economic development).

In its evidence, EFG describes these proposals by Enbridge Gas as "pre-screening criteria", and addresses them as part of Issue 6 (What screening criteria and methodology should be adopted to evaluate and compare IRP Alternatives (IRPAs) with one another and with facility projects?)

IR 2-Staff-6-Enbridge
Ref: Exhibit A, Tab 13 / p. 10 of 24

Additional Public Documents: Enbridge Gas Inc. 2021-2025 Utility System Plan and Asset Management Plan (filed October 15, 2020; EB-2020-0181, Exhibit C, Tab 1, Schedule 1 (Utility System Plan), Exhibit C, Tab 2, Schedule 1 (Asset Management Plan)).

Preamble:

Enbridge Gas proposes a goal of IRP as "aimed at reviewing and implementing alternatives that reduce natural gas in-franchise peak period demand growth to defer or avoid future transmission and distribution system facility expansion/reinforcement projects". OEB staff wishes to better understand the definition of facility expansion/reinforcement projects, how this maps to Enbridge Gas's categorization of capital investments in its Utility System Plan and Asset Management Plan, and why Enbridge Gas is proposing limiting IRP to facility expansion/reinforcement projects.

Questions:

a) Please provide Enbridge Gas's definition of facility expansion/reinforcement projects.
b) Of the four investment categories outlined in Enbridge Gas's Utility System Plan ("system access", "system renewal", "system service", "general plant"), which category/categories do facility expansion/reinforcement projects fit into?
c) Is Enbridge Gas's definition of "facility expansion/reinforcement projects" in the IRP proposal intended to be identical to the "Growth" asset class in Enbridge Gas's Asset Management Plan (section 5.1), which the Asset Management Plan defines as "the addition of new customers based on new housing or business starts, customers converting to natural gas from another fuel source as well as equipment and service upgrades to accommodate existing customer load growth"? Does it include the Asset sub-class "Customer Connections" or only the

"Distribution System Reinforcement" and "Transmission System Reinforcement" categories?

d) Section 5.1 of the Asset Management Plan (p. 72) notes that "capital costs related to transmission system reinforcements are included in the expenditure summary for the Transmission Pipe and Underground Storage asset class". Please clarify which types of infrastructure projects described in the "storage and transmission operations" asset class would be considered "facility expansion/reinforcement" and therefore subject to consideration of IRPAs.
e) Please provide the rationale as to why Enbridge Gas is not proposing consideration of IRPAs for the other asset classes described in chapter 5 of Enbridge Gas's Asset Management Plan. Does Enbridge Gas believe that viable IRPAs (e.g. downsizing pipe infrastructure on replacement due to implementation of IRPAs) do not exist for any of these classes? Please describe

IR 2-Staff-7-Enbridge
Ref: Exhibit A, Tab 13 / p. 11 of 24; Exhibit B / pp. 19-20 of 46; OEB staff evidence (Guidehouse report) / pp. 29-31 of 77

Additional Public Documents: Enbridge Gas Inc. 2021-2025 Asset Management Plan (filed October 15, 2020; EB-2020-0181), Exhibit C, Tab 2, Schedule 1, Tables 6.1-3, 6.1-4, pp. 257-259); Consolidated Edison Company of New York, Inc, Proposal for use of a Framework to Pursue Non-Pipeline Alternatives to Defer or Eliminate Capital Investment in Certain Traditional Natural Gas Distribution Infrastructure / p. 5 of 33.

Preamble:

Enbridge Gas proposes criteria for a binary screening that would be used to determine which system needs would require consideration of IRPAs. Guidehouse provides a discussion of Consolidated Edison Company of New York's (Con Ed's) Non-Pipeline Alternatives Framework Proposal as to which types of projects could likely be considered for IRP solutions, which can be compared with Enbridge Gas's proposed criteria.

Questions:

a) Has Enbridge Gas reviewed Con Ed's proposed screening criteria? Does Enbridge Gas believe that there are any differences between Enbridge Gas and Con Ed's circumstances that have led to differences in proposed screening criteria? If so, please describe.
b) Enbridge Gas's original IRP proposal included a proposed screening criterion that IRPAs would only be considered in areas with a maximum annual forecasted load growth of 1.4%. Please confirm that Enbridge Gas is no longer proposing

that load growth be an element of the binary screening for the relevance of IRPAs, and if so, why Enbridge Gas has proposed removing this criterion.

c) Please provide more clarity as to Enbridge Gas's proposed exemption criterion for safety. Does Enbridge Gas intend this criterion to apply only to projects that need to be addressed immediately, or also to projects where Enbridge Gas intends to address safety/integrity issues over a longer period of time? For comparison, Con Ed proposes a similar criterion which is limited to "emergent safety risks" that must be resolved as quickly as practicable. Con Ed gives the examples of "replacement of leaking services; replacement of gas mains with active leaks; replacement of main segments due to water intrusion or contractor damage; and replacement of cast iron main due to encroachment activity."
d) Enbridge Gas proposes that projects where system needs must be met in under 3 years would be exempt from IRP consideration. Based on Enbridge Gas's historical experience and its needs identification process, how often do facility expansion/reinforcement system needs arise that would not have been identified more than 3 years in advance? Please describe.
e) Is Enbridge Gas's proposed exemption criterion for "Customer-specific builds" limited to projects that would not impose additional supply or infrastructure costs on Enbridge Gas ratepayers other than the specific customers the projects are intended to connect?
f) Is Enbridge Gas's proposed exemption criterion for "Community expansion & economic development" driven by policy and related funding limited to specific named projects that have been listed as being eligible for rate reduction (e.g. those currently listed in in O. Reg. 24/19 ("Expansion of Natural Gas Distribution Systems")? If additional funding was made available to Enbridge Gas to support community expansion projects, but was not allocated to specific projects, would Enbridge Gas propose that the community expansion projects it chose to pursue with this funding would also be exempt from IRPA consideration? Please clarify what (if any) other factors would exempt a project from IRPA consideration under this criterion.
g) Taking into account both Enbridge Gas's proposal to limit IRP to facility expansion/reinforcement projects, and the additional exemption criteria proposed by Enbridge Gas, please indicate which of the ICM-eligible projects shown in Tables 6.1-3 and 6.1-4 of Enbridge Gas's 2021-2025 Asset Management Plan (pp. 257-259) would have likely been determined to be suitable for further consideration of IRPAs, had these criteria been in place. For projects determined not to be suitable, please indicate which criterion/criteria would have disqualified them from further consideration of IRPAs.

Stakeholder Consultation

IR 2-Staff-8-Enbridge
Ref: Exhibit B / pp. 39-42 of 46

Additional Public Documents: Ontario Power Authority and Independent Electricity System Operator, Engaging Local Communities in Ontario's Electricity Planning Continuum: Enhancing Regional Electricity Planning and Siting, August 1, 2013.

Preamble:

Enbridge Gas discusses its proposed approach to stakeholder engagement in IRP.

Questions:

a) Regarding the geographically-specific stakeholder engagement in response to a specific system need (component 3), does Enbridge Gas intend for this stage to seek input from stakeholders on how best to meet the system need (e.g., presenting information and seeking feedback on multiple potential solutions under consideration by Enbridge Gas, seeking stakeholder input on additional location-specific solutions Enbridge Gas may not have considered), or only to seek input on the specific preferred IRPA that Enbridge Gas has identified? Please describe the rationale behind Enbridge Gas's preferred approach.
b) Community engagement has been an important aspect of Ontario's regional electricity planning, including the referenced report by the Ontario Power Authority and Independent Electricity System Operator on this issue. Does Enbridge Gas have any views as to the community engagement approach discussed in this report and used for regional electricity planning in Ontario, and its applicability for Enbridge Gas regarding community engagement on solutions to geographically-specific system needs?

Issue 3: What, if any, OEB approvals are required under the IRP Framework, including for IRP Plans?

IR 3-Staff-1-Enbridge

Ref: Exhibit A, Tab 13 / p. 15 of 24; Exhibit B / p. 17, 36 of 46

Preamble:

Enbridge Gas notes that "once it is determined that an IRP/IRPA is preferable to an identified facility expansion/reinforcement project, Enbridge Gas will apply to the OEB for approval to recover the costs associated with that IRPA. This may be done in a rate

application or as a separate stand-alone application." Enbridge Gas also indicates that it would seek OEB approval to adjust investments in such IRPAs as appropriate (e.g., to shift funding to an alternate IRPA or to increase/decrease/cease investment in IRPAs accordingly).

Questions:

a) Pipeline projects meeting certain criteria require a facilities approval (Leave to Construct) under section 90 of the *OEB Act*. The Leave to Construct review includes consideration of need and alternatives. Leave to Construct approval also provides some level of assurance to Enbridge Gas that it will likely be eligible to recover prudently incurred costs associated with the project.
    a. Does Enbridge Gas propose that a similar process and a new form of OEB review and project approval be established for IRP Plans, in advance of seeking approval to recover costs through rate applications?
    b. If so, does Enbridge Gas propose that this approval would be required for all IRP Plans, or only in certain circumstances?
    c. If the latter, does Enbridge Gas have any proposals regarding what criteria would be used to determine if an IRP Plan approval would be required (e.g. cost threshold)?
b) Enbridge Gas indicates that it would also seek OEB approval to adjust investments in IRPAs as appropriate. Does Enbridge Gas propose that this approval would be sought for any adjustment to an approved IRP Plan, or would certain thresholds apply (regarding changes to level of spending, changes to IRPA technology or implementation approach, etc.)? If the latter, please provide any views Enbridge Gas has as to what considerations might apply.
c) The OEB currently approves recovery of capital costs for facilities projects through rate applications, in particular, in a rebasing application or in a price cap incentive regulation application through an Incremental Capital Module to recover funding for significant capital investments for discrete projects during the period of incentive regulation between rebasing applications. Does Enbridge Gas believe that any adjustments to this approach would be needed to address rate approvals (s. 36 of the *OEB Act*) for recovery of costs for IRPAs (outside of Enbridge Gas's proposal to treat IRPA costs as capital, discussed under issue 7)? If so, please describe.

Issue 4: Will the IRP Framework necessitate consequential changes to any other OEB policies, rules, or guidelines? If so, which policies, rules, or guidelines might be affected, and how should these changes be addressed?

IR 4-Staff-1-Enbridge
Ref: Exhibit A, Tab 13 / pp. 3-4 of 24; Exhibit C / p.7 of 26

Preamble:

Enbridge Gas submits that IRP should be reviewed and treated separately from Demand-Side Management (DSM).

Enbridge Gas notes that forecasting and projecting potential system capacity needs/constraints up to ten years in advance is inherently more likely to result in less reliable results (e.g., the identification of needs/constraints and potential IRPA investments that are not absolutely necessary).

Questions:

a) Does Enbridge Gas's preference that initiatives to address infrastructure needs should be addressed through IRP (and not through Enbridge Gas's post-2020 DSM Plans) apply to both:
    a. Local/regional infrastructure needs affecting a limited geographic area/subset of Enbridge Gas customers
    b. Broad-based infrastructure needs where the need (and potential solutions) could impact a large number of Enbridge Gas customers (e.g. upgrades to the trunk routes on the transmission system)
b) If both, please provide more rationale as to why Enbridge Gas believes that broad-based infrastructure needs should not be considered in some manner (e.g. size of budget and savings targets, focus on peak demand savings vs. overall natural gas savings, program and measure mix, etc.) in informing Enbridge Gas's post-2020 DSM Plans and should instead be addressed through IRP.
c) In relation to longer-term system needs that may not materialize (and for which targeted spending on IRPAs or facility projects is not yet proposed), does Enbridge Gas believe that there is any opportunity to incorporate this planning information on system needs into its DSM plans and activities to allocate more of its DSM efforts to the areas where these longer-term needs have been identified, without negatively impacting the overall performance of its DSM efforts ("no regrets" DSM activities)?

Issue 5: What are industry best practices for IRP, and how are they applicable to the Ontario context?

(Note: where appropriate, interrogatories based on "best practices" from other jurisdictions, including New York State have been included under the specific issue they are relevant to, as opposed to this issue. Interrogatories on two "best practices" that do

not fit into other issues – the use of pilots and learnings from IRP in the electricity sector – are included here)

Pilot Projects

IR 5-Staff-1-Enbridge
Ref: Exhibit M2.GEC-ED / pp. 27-29 of 55; Exhibit C / pp. 25-26 of 26, Appendix A / pp. 1-30

Preamble:

EFG recommends that Enbridge Gas develop two IRP pilot projects, noting that most jurisdictions considering IRP have started with pilot projects.

Enbridge Gas agrees in principle with EFG's proposal. Enbridge Gas provides a case study on the results of its Ingleside pilot project.

Questions:

a) Enbridge Gas proposes that the pilot projects be selected and implemented following the development and issuance of an IRP Framework for Enbridge Gas. Does Enbridge Gas believe that all aspects of an IRP Framework need to be addressed prior to proceeding with additional pilots? If not, which elements are most important to receive OEB direction on, in Enbridge Gas's view?
b) Enbridge Gas indicates that the primary goals of the Ingleside pilot were: to test the impact of geo-targeted energy efficiency programs on peak hourly demand (including the use of metering technology for this purpose), and to explore the cost of geo-targeted DSM pilot implementation. Does Enbridge Gas have any initial views as to which types of IRPAs and which other aspects of IRP would be most important to test in future pilots?
c) From the Ingleside study results, the small size and homogenous customer mix (few commercial/industrial customers) of the Ingleside study area appeared to limit the potential effectiveness of geotargeted DSM (or other IRPAs). The case study notes that "Ingleside was selected after consideration of various factors including size and infrastructure." Does Enbridge Gas believe this study area is representative of typical areas (in terms of system needs and/or viability of potential IRPAs) where IRP Plans may be proposed in the future? Please describe why or why not.

Learnings from IRP in the Electricity Sector

IR 5-Staff-2-Enbridge
Ref: Exhibit B, Appendix A / p. 67 of 92; Exhibit C / pp. 7-8 of 26

Additional Public Documents: Planning Process Working Group Report to the Board, The Process for Regional Infrastructure Planning in Ontario, May 17, 2013; Independent Electricity System Operator, Regional Planning Process Review Straw Man Design, February 28, 2020

Preamble:

ICF's report for Enbridge Gas discusses electricity system planning in Ontario, including the regional planning process and the consideration of non-wires solutions.

Enbridge Gas notes that there are some instances where electric Non-Wires Alternative ("NWA") insights apply to natural gas IRP, but that there are also key differences between electric and natural gas infrastructure planning.

The public documents listed provide more information on Ontario's experience considering non-wires alternatives in electricity system planning. The OEB-endorsed Process for Regional Infrastructure Planning in Ontario (2013) details the planning process for addressing regional infrastructure needs, including needs screening, and how non-wires alternatives should be considered as potential solutions, and has informed regional planning since that time. The regional planning process is currently under review. The IESO's Regional Planning Process Review Straw Man Design report summarizes many of the learnings of how this process has worked in practice to date, and recommendations for improving the regional planning process, including discussion of addressing barriers to non-wires alternatives.

Questions:

a) Has Enbridge Gas considered Ontario's specific experience with non-wires alternatives in the regional planning process, including the documents mentioned above, in developing its IRP proposal?
b) If so, does Enbridge Gas have any observations or lessons learned from Ontario's experience with non-wires alternatives (e.g. practices that should or should not be transferred to IRP planning for Enbridge Gas)?

Issue 6: What screening criteria and methodology should be adopted to evaluate and compare IRP Alternatives (IRPAs) with one another and with facility projects?

(Note: Interrogatories as to what types of activities/projects (IRPAs) are eligible to be included within an IRP Plan are included in this issue)

What activities/projects (IRPAs) are eligible to be included within an IRP Plan?

IR 6-Staff-1-Enbridge
Ref: Exhibit B / pp. 21-30 of 46

Preamble:

Enbridge Gas describes a range of potential IRPA technologies.

Questions:

a) Does Enbridge Gas have a view as to which of the described technologies appear most promising in the Ontario context in terms of deferring or avoiding Enbridge Gas infrastructure, considering cost-effectiveness, reliability, demand reduction potential, etc.?
b) In addition to their ability to reduce infrastructure costs (primarily by reducing peak demand), these technologies differ in the additional costs and benefits they would provide to customers and society (e.g. impact on customer commodity costs and carbon charges, etc.) Would Enbridge Gas's opinion as to which technologies would be most promising for IRP in Ontario change if the OEB determines that IRP cost-effectiveness should be assessed primarily from the viewpoint of customers or society, instead of from the utility perspective (e.g. using a Total Resource Cost+ test or Societal Cost Test)?

IR 6-Staff-2-Enbridge
Ref: Exhibit B / pp. 25-27 of 46; OEB staff evidence (Guidehouse report) / p. 14 of 77

Additional Public Documents: Consolidated Edison Company of New York, Gas Demand Response Report on Pilot Performance – 2018/19, July 1, 2019, p. 5

Preamble:

Enbridge Gas notes that Contract Rate customers can contract for both a firm service level and an interruptible service level and that "it is unlikely that significant new DR {demand response} solutions exist for Contract Rate customers in Ontario". Within the General Service class, Enbridge Gas indicates that larger commercial and industrial customers may have additional factors that can mitigate their achievable demand reduction.

Questions:

a) Does Enbridge Gas consider all three of the following solutions to be within the scope of potential IRPAs?:
    a. Encouraging customers to convert some or all of their load from firm to interruptible service, e.g. through better promotion of interruptible rates;
    b. Utilizing demand response programs (of some nature) for customers on firm rates;

   c. Rate design for firm and interruptible customers to disincent consumption at times of peak system demand.

b) Does Enbridge Gas's conclusion that "it is unlikely that significant new DR solutions exist for Contract Rate customers in Ontario" apply to all of the above categories of solutions? Please describe.
c) Con Ed's Gas DR pilot includes a stream ("Performance-Based Gas DR Pilot") targeted primarily at commercial and institutional gas customers and multi-family buildings with centralized gas heating systems, on firm rates. Does Enbridge Gas believe that a DR program of this nature is unlikely to be a viable solution in Ontario? Please describe.

IR 6-Staff-3-Enbridge
Ref: Exhibit B / pp. 29 of 46; OEB staff evidence (Guidehouse report) / p. 14 of 77

Additional Public Documents: New York Joint LDCs, Modernized Gas Planning Process: Standards for Reliance on Peaking Services and Moratorium Management, July 17, 2020.

Preamble:

Enbridge Gas notes that it will consider long-term natural gas supply IRPAs, but that commercial alternatives such as peaking supply, delivered supply, exchanges and third-party assignments are not considered appropriate to meet long-term gas supply requirements.

Questions:

a) Please provide more detail as to why Enbridge Gas does not consider commercial alternatives such as peaking supply, delivered supply, exchanges and third-party assignments as appropriate to meet long-term gas supply requirements. OEB staff notes that commercial alternatives such as delivered services play a large role in gas system planning in New York State, and that work is ongoing through the Modernized Gas Planning Process proceeding to assess and compare the reliability risks of these services with other resource options.
b) Does Enbridge Gas also believe that these types of solutions have no role in addressing distribution or transmission system infrastructure needs? Please describe.

IR 6-Staff-4-Enbridge
Ref: Exhibit A, Tab 13 / p. 12 of 24; Exhibit B / p. 23 of 46

Preamble:

Enbridge Gas indicates that it is seeking confirmation that non-gas alternatives can be included in the range of possible and available IRPAs. Enbridge Gas notes that, if authorized by the OEB, it could offer non-gas alternatives such as electric heat pumps, but would need to include these assets in rate base.

Questions:

a) Please clarify why any electric IRPA would require Enbridge Gas ownership and ratebasing of assets. Would this apply even if the goal of the IRPA was to reduce infrastructure needs for customers other than those directly using the heat pumps (or other electric technologies)?
b) Is Enbridge Gas requesting an OEB determination as to whether non-gas alternatives such as electric heat pumps would be eligible to include in rate base at this time, in advance of a specific electric IRPA being brought forward for consideration? Does Enbridge Gas believe that this determination is necessary for it to give consideration to electric IRPAs at the planning stage?
c) Are there any technologies other than electric heat pumps for which similar considerations apply?

IR 6-Staff-5-Enbridge
Ref: OEB staff evidence (Guidehouse report) / p. 40 of 77

Preamble:

Guidehouse describes the components of Con Ed's Smart Solutions Program in New York State, which include a market solicitation for non-pipeline solutions.

Questions:

a) Con Ed's Smart Solutions Program includes a market solicitation for non-pipeline solutions, to seek demand-side reduction and alternative non-pipeline supply-side solutions from market participants. Does Enbridge Gas see any value in a similar market-based call for solutions in Ontario? Why or why not?

Screening criteria and methodology to evaluate and compare IRP Alternatives (IRPAs) with one another and with facility projects

IR 6-Staff-6-Enbridge
Ref: Exhibit A / pp. 12-14 of 24; Exhibit B / pp. 15-16 of 46

Preamble:

Enbridge Gas discusses a two-stage process for evaluating IRPAs in both Exhibit A and Exhibit B, however, there are some differences between these descriptions.

Questions:

a) Please confirm whether the two-stage process for evaluating IRPAs described in Exhibit B is a complete description of Enbridge Gas's current proposal on this topic, and replaces the description of this two-stage process in Exhibit A. In particular, does the first stage of Enbridge Gas's proposed evaluation of IRPAs include any form of economic analysis (as indicated in Exhibit A) or does it only assess whether a particular IRPA has the technical potential to meet the system need, taking reliability into account (as indicated in Exhibit B)?

IR 6-Staff-7-Enbridge
Ref: Exhibit B / p.31 of 46; Exhibit C / pp. 8-13 of 46

Additional Public Documents: Consolidated Edison Company of New York, Inc, Gas Benefit-Cost Analysis Handbook (filed as part of Con Ed's NPA Framework Proposal filing), September 14, 2020, p. 9

Preamble:

Enbridge Gas discusses the economic evaluation that should be used to compare IRPAs and facility projects, and proposes that the OEB establish a staged economic evaluation standard for IRPAs through this proceeding that ultimately resembles a modified version of the OEB's E.B.O. 134 guidelines or a Discounted Cash Flow + (DCF+) test. Enbridge Gas compares its proposed approach to Consolidated Edison's Benefit-Cost Analysis Handbook used for its analysis of non-pipes alternatives in New York State.

Questions:

a) Enbridge Gas proposes that "the economic feasibility for IRPAs will be assessed using a Discounted Cash Flow ("DCF") methodology consistent with principles underpinning the Board's E.B.O. 134 and E.B.O. 188." These methodologies were originally developed to assess potential expansions of the natural gas distribution and transmission system. If the OEB determines that IRP should be considered for other categories of infrastructure projects, does Enbridge Gas believe that this methodology remains appropriate to assessing and comparing the economic feasibility of IRPAs and facility projects, and if so, would any key modifications be required?

b) Enbridge Gas proposes that the OEB develop a staged economic evaluation, noting the three potential stages of cost-benefit analysis in the E.B.O. 134 process (economic, customer, and societal).
   a. Can Enbridge Gas provide a table identifying which categories of costs and benefits it would propose to include in the different stages of its proposed cost-benefit evaluation, similar in nature to Table 3-1 (p. 9) in Con Edison's Gas-Benefit Cost Analysis Handbook? In particular, please clarify how impacts on commodity costs paid by Enbridge Gas customers would be treated.

Table 3-1: Summary of Cost-Effectiveness Tests by Benefit and Cost

Benefit/Cost	SCT	UCT	RIM
Benefits			
Avoided Peaking Services	✓	✓	✓
Avoided Pipeline & Storage Costs	✓	✓	✓
Avoided Commodity Costs	✓	✓	✓
Avoided On-System Capacity Infrastructure	✓	✓	✓
Avoided O&M	✓	✓	✓
Reliability/Resiliency	✓	✓	✓
Avoided CO2 Emissions	✓		
Other Avoided Emissions	✓		
Non-Energy Benefits*	✓	✓	✓
Other External Benefits	✓		
Costs			
Program Administration Costs	✓	✓	✓
Incremental On-System Investments	✓	✓	✓
Lost Utility Revenue			✓
Shareholder Incentives			✓
Incremental Participant Costs	✓		
Alt. Fuel Costs	✓	✓	✓
Alt. Fuel CO_2 Emissions	✓		
Alt. Fuel Other Emissions	✓		
Net Non-Energy Costs*	✓	✓	✓
Other External Costs	✓		

*It is necessary to identify which cost-effectiveness test should include the benefit or cost in the Net Non-Energy Benefit or Net Non-Energy Cost as it may apply to the SCT, UCT, and/or RIM.

   b. Is Enbridge Gas proposing that all three stages of the cost-benefit analysis would always be conducted?
   c. Does Enbridge Gas have a position as to how the results of the different tests would be used together, and which test, if any, would be given primacy in determining the preferred project?

IR 6-Staff-8-Enbridge

Ref: Exhibit B / p.30-31 of 46; OEB staff evidence (Guidehouse report), p. 42-44 of 77

Preamble:

Enbridge Gas notes that in addition to cost, reliability, safety and sustainability and "broadly protecting the interests of customers" would be relevant factors in evaluating and comparing IRPAs and facility projects.

Guidehouse describes the criteria used by National Grid in New York State to compare IRPAs and facility projects.

Questions:

a) Does Enbridge Gas have any specific considerations in mind in the phrase "broadly protecting the interests of customers" that the OEB and Enbridge Gas should consider when assessing whether to proceed with investment in an IRPA? If so, please describe.
b) In addition to cost, comparative factors used by National Grid are safety, reliability, environment, and community. These factors appear similar to those proposed by Enbridge Gas, with the exception of "community". Would Enbridge Gas consider the preference or views of impacted communities (including information obtained from stakeholder consultation) to be a relevant factor in comparing IRPAs and facility projects, and determining the preferred solution? If so, please describe how this factor would be taken into account in the evaluation and comparison of alternatives.

Issue 7: What is the appropriate approach to the recovery of the costs resulting from an approved IRP Plan and the costs for additional investments to support IRP?

IR 7-Staff-1-Enbridge

Ref: Exhibit B / pp. 32-34

Preamble: Enbridge Gas proposes that the costs associated with an IRPA be included in its revenue requirement, and capitalized to rate base.

Questions:

a) Does Enbridge Gas propose that IRP planning costs incurred prior to OEB approval of an IRP Plan would also be eligible for capitalization to rate base?
b) If so, would this treatment apply only to project-specific costs for the specific IRPA(s) approved in an IRP Plan?

c) Is Enbridge Gas proposing that IRP Plan costs would be eligible for cost recovery once the IRP Plan was "in-service", similar to the treatment for facility projects? Please describe any special considerations that might apply regarding the determination of an "in-service" date for IRPAs.
d) Does Enbridge Gas have any views as to how cost recovery for general investments to better enable Enbridge Gas to consider and implement IRP across its system (e.g. piloting of different IRPA technologies, improvements to system planning procedures, investments in AMI) should be treated?
e) Does Enbridge Gas have any views as to whether IRP raises any issues regarding the allocation of IRP costs to rate classes that need to be identified and addressed on a general basis within the IRP Framework?

IR 7-Staff-2-Enbridge

Ref: Exhibit B / pp. 32-34; OEB staff evidence (Guidehouse report) / pp. 45-48 of 77

Preamble: Guidehouse discusses Enbridge Gas's cost recovery proposal and the treatment of cost recovery for IRPAs in New York State.

Questions:

a) Does Enbridge Gas have any views as to whether a single amortization period for all investments in IRP (Con Ed in New York State proposes a single 20-year period for all IRP investments, as noted in the Guidehouse report) or a unique amortization period based on project-specific considerations is preferable?
b) Guidehouse notes that "Enbridge Gas does propose that O&M costs for IRPAs be capitalized, which is a notable difference in the capitalization approach between O&M costs for IRPAs and facility projects. Enbridge Gas indicates that the overall intention of its IRPA treatment is to incentivize IRPAs and facility projects equally, but the cost treatment between the two will vary slightly." Does Enbridge Gas agree with Guidehouse's statement that the cost treatment between IRPAs and facility projects would differ slightly if Enbridge Gas's proposal were to be adopted, and if so, would changes to the capitalization approach for facility projects (e.g. how ongoing O&M costs are treated) be needed to achieve the objective of like treatment of facility projects and IRPAs?

Issue 8: Who should bear the risk of an IRP Plan that does not accomplish its planned expectations and should there be consequences for not achieving planned expectations?

IR 8-Staff-1-Enbridge

Ref: Exhibit B / p. 37 of 46; OEB staff evidence (Guidehouse report) / pp. 50-51 of 77

Preamble: Enbridge Gas proposes that ratepayers, not Enbridge Gas, bear the costs associated with the success or failure of IRPAs, and states that such treatment of risk is consistent with investments in facility expansion/reinforcement projects.

Questions:

a) OEB staff notes that, even for projects given LTC approval, the OEB can review the reasonableness of final project costs. Is Enbridge Gas proposing that the OEB would have a similar role in reviewing the final project costs for IRP Plans? If so, are there any specific considerations which Enbridge Gas believes should guide the OEB's review of final project costs for approved IRP Plans that would differ from that for traditional infrastructure projects?
b) Are there any other risks that Enbridge Gas is proposing to assume in its proposed investments in IRPAs, in return for its request for a rate of return that includes a risk premium?

Issue 9: What incentives are appropriate to ensure effective IRP outcomes?

IR 9-Staff-1-Enbridge

Ref: Exhibit B / pp. 33-34 of 46; OEB staff evidence (Guidehouse report) / pp. 50-51 of 77

Additional Public Documents: Ontario Energy Board, 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), January 15, 2010, section 3.2.4; Consolidated Edison Company of New York, Inc, Proposal for use of a Framework to Pursue Non-Pipeline Alternatives to Defer or Eliminate Capital Investment in Certain Traditional Natural Gas Distribution Infrastructure / pp. 26-31 of 33.

Preamble: Enbridge Gas notes that the simplest and most effective means of creating a level playing field between IRPAs and facility infrastructure is by ensuring that Enbridge Gas is equally incented between the two types of investments (by earning an equal return on investment). Enbridge Gas suggests that the OEB could potentially consider an additional incentive above the regulated rate of return if it wished to prioritize IRPAs, but that the topic of incentives might be appropriately examined in a separate study.

Guidehouse discusses the incentive proposal included as part of Con Ed's Non-Pipeline Alternatives framework filing. The Con Ed proposal itself provides additional detail on this proposed incentive mechanism.

Questions:

a) Enbridge Gas notes that ensuring it is equally incented between IRPAs and facility infrastructure would create a level playing field between these two types of investments (i.e. specific IRPA performance incentives may not be necessary). Does Enbridge Gas believe that this position might change if other elements of Enbridge Gas's IRP proposal (risk, approval mechanism, etc.) are modified by the OEB – i.e. would incentives then be necessary to overcome perceived risks associated with spending on IRPAs?
b) Enbridge Gas notes that a performance incentive for IRPAs could potentially be based on the net benefits achieved (in comparison with a facility project), which is the form of incentive proposed by Con Ed. Has Enbridge Gas considered a different form of performance incentive that could provide a (potentially higher) project-specific rate of return to address the perceived higher risk associated with IRPAs, as described in section 3.2.4 of the referenced OEB report, and if so, does it have any views on this type of incentive?
c) Con Ed's incentive proposal includes both a performance incentive (based on net project benefits relative to a traditional infrastructure solution) and a bi-directional cost-containment incentive, that could reward (or penalize) Con Ed for reducing (or increasing) the cost of the non-pipeline alternative during the implementation phase. Does Enbridge Gas believe that a cost-containment incentive could have value in the context of an Ontario IRP Framework, and if so, does Enbridge Gas believe that this type of incentive (as well as performance incentives) could also be examined in a separate study, outside of the initial review of Enbridge's IRP proposal?
d) Does Enbridge Gas believe that the IRP Framework should include any form of penalty if the OEB determines (e.g. in a decision on a Leave to Construct application) that Enbridge Gas failed to give adequate consideration to IRPAs and that Enbridge Gas's actions have had cost consequences for its customers? Why or why not?

Issue 10: What is the appropriate approach for monitoring and reporting on the progress of IRP Plans, including consideration of metrics and a scorecard?

IR 10-Staff-1-Enbridge

Ref: Exhibit B / p. 37-38 of 46

Additional Public Documents: Consolidated Edison Company of New York, Inc, Proposal for use of a Framework to Pursue Non-Pipeline Alternatives to Defer or Eliminate Capital Investment in Certain Traditional Natural Gas Distribution Infrastructure / pp. 29-31 of 33.

Preamble: Enbridge Gas proposes filing an annual report of the effectiveness of IRPAs in meeting system needs. Enbridge Gas notes that monitoring and reporting could include consideration of metrics.

Questions:

a) Would Enbridge Gas's proposed annual IRP report also include progress updates on elements of IRP that are not tied to specific approved IRP Plans (e.g. updates on incorporating IRP into asset management planning, updates on planning status of potential IRPAs to meet system needs not yet in an IRP Plan, developments on IRP pilot projects, etc.)?
b) OEB staff notes that Con Ed's Non-Pipeline Alternatives Framework Proposal (pp. 29-31) discusses making use of updated reliability assessments to inform whether spending on previously approved non-pipeline alternatives may need to be increased or decreased. Within its proposed annual IRP report, in cases where IRP Plans to address specific system needs have been approved, would Enbridge Gas support providing updated information on the status of these system needs (e.g. current data on system peak demand, updated demand forecast for the affected area), for the purpose of assessing whether the system need remains and ongoing spending on IRPAs needs to be increased or decreased? Why or why not?
c) What, if any, outcomes or metrics does Enbridge Gas believe should be used to measure the progress of its IRP Plans? Is there any relationship between these outcomes and the approach to incentives, cost recovery, and risk that Enbridge Gas has proposed? Please describe.