EB-2020-0091

Ontario Energy Board

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sch. B, as amended;

AND IN THE MATTER OF an Application by Enbridge Gas Inc. related to a proposed framework for Gas Integrated Resource Planning.

Submissions on behalf of

Energy Probe Research Foundation

March 31, 2021

Framework for Gas Integrated Resource Planning
Enbridge Gas Inc
Energy Probe Research Foundation Argument

For ease of reference Energy Probe Research Foundation (Energy Probe) has organized its Argument submission similar to the organization of the Argument in Chief of Enbridge Gas Inc.(EGI, Enbridge, Enbridge Gas).

Table of Contents

Summary of Energy Probe Argument 3

A. Overview 10

B. Procedural Steps 12

C. Purpose of Enbridge Gas' IRP Framework Proposal 12

D. Lessons Learned from Other Jurisdictions 16

E EGI IRP Framework and Guiding Principles 17

E-1 Approvals Requested and Guiding Principles 17

E-2 EGI IRP Proposal Elements 18

E-3 Scope of Enbridge Gas IRPAs 19

F. Alternatives Proposed by Parties and their Experts 20

F-1 Board Staff Experts Guidehouse-The IRP experience in New York 20

F-2 ED/GEC Expert Energy Futures Group (EFG) 21

G. Details of Enbridge IRP Proposal 22

G-1 Economic Evaluation of Facility and IRPAs 23

G-2 Stakeholder Outreach and Engagement Process 26

G-3. IRPA Cost Recovery and Accounting Treatment Fundamentals 27

H. Future IRP Plan Applications 27

H-1 Monitoring and Reporting 28

H-2 IRP Costs Deferral Account 29

H-3 IRP Pilot Project Proposal 29

H-4 Advanced Metering Infrastructure (AMI) Acknowledgement 29

I. Next Steps After Issuance of IRP Framework 30

J. Approvals Sought by EGI 30

Appendix: Energy Probe Position on Issues 34

Summary of Energy Probe Argument

Scope of Hearing

Several parties have interpreted the Objective of this Hearing in the broadest possible way, including matters that are outside of the Board's jurisdiction and the mandate of EGI as a gas utility under the Provisions of the Act and Regulations. At a high level, the Framework for IRP should be consistent with the Objectives for Gas in the OEB Act.

Consideration of other matters, such as broad energy planning and multi-fuel planning are Policy Issues for the Government and the Ministry of Energy, Northern Development and Mines to consider and provide appropriate policy direction to the Board and Enbridge Gas.

Hence, Energy Probe requests that the Board to render its Decision within the boundaries of the Act and focussed on the Issues List and on a Regulatory Framework that will facilitate Enbridge doing what it does best - meeting the Board's Objectives for Gas and provision of gas service effectively in its Ontario franchise areas. This requires the Board to resist broadening the scope to inter-energy planning solutions and resisting any potential for Enbridge Gas Inc. to reinvent itself and transition into a non-gas energy utility.

Enbridge Gas' IRP Framework Proposal

Energy Probe is supportive in principle of Enbridge's proposed IRP approach. However, the scope of IRPAs should be those that Enbridge "controls" so it can meet its customers' needs as required by the Act and Regulations. Enbridge should not consider third party solutions, unless these are guaranteed 100% by Enbridge without **risk** to their gas customers.

The issue of risk is an area where Energy Probe fundamentally disagrees with Enbridge. An IRPA is a Gas System Solution that should not transfer the utility requirement to serve ratepayers.

First the utility has the requirement to serve its customers. How it does so is for it to determine. Second, IRPAs may include system solutions, which EGI controls directly, for example Renewable Natural Gas and Hydrogen. Third, if it is allowed to Rate Base IRPAs as EGI proposes, then it will earn its return on the Rate Base. Last, customers already take the risk from Demand Side Management. If Geo-targeted DSM is accepted as an IRPA this will continue.

Enbridge has not made a case for compensation or incentives due to increased risk. If it believes that retaining the Risk for both infrastructure and IRPA projects is not appropriate, it can request such consideration from the Board, **but should do so now before the IRP Framework is in place.**

Learnings from Other Jurisdictions

The first "lesson learned", is that no jurisdiction has economic feasibility "tests" for pipe infrastructure solutions similar to the Ontario Energy Board Guidelines.

The second is that in New York State, "tests" for economic feasibility are not the same as the Total Resource Cost (TRC) and TRC Plus tests approved by the OEB to evaluate Demand Side Management (DSM) Measures.

The Board should be cautious about directing Enbridge to abandon its pipeline economic feasibility tests as some "experts" (without any experience of these) propose to move to a TRC Plus test or similar. The primary reason for retaining the Board's Guidelines is that the majority of IRP solutions will be pipeline infrastructure, The minority will be, or include IRPAs.

Enbridge has proposed a "Discounted Cash Flow (DCF) plus test". Energy Probe supports this approach, in principle, as a starting point, subject to certain specific caveats about the "test" that will be discussed later in the section on Economic Feasibility Tests.

EGI IRP Framework and Guiding Principles

Energy Probe supports in principle the OEB approving the Framework and Guiding Principles proposed by EGI. However, there is a lack of sufficient supporting information and the "devil is in the details".

EGI should produce a **Draft IRP Manual** that shows how the components of the IRP Plan process fit together. The IRP Manual should be subject to Stakeholder Review before being approved as an OEB IRP Guideline. The analogy is the various DSM Plans and Guidelines that have been generated, stakeholdered and approved by the Board.

EGI IRP Proposal Elements

EGI's proposed AMP Binary Screening process is based on both the Binary Screen and Timing.

It is unclear if this is appropriate, or whether initially, different project thresholds should be used to avoided "missed opportunities", including supply side solutions such as the current Parkway Delivery Option (PDO).

It is also unclear whether there is an appropriate balance between Stakeholder Consultation and process efficiency.

Scope of Enbridge Gas IRPAs

Energy Probe disagrees with Enbridge that the Scope of IRPAs should be broadened to include a wide range of potential IRPAs. As noted earlier, the utility role/scope should be **facilitating IRPAs** and ensuring that the System Peak is met for all firm customers by either demand-side or supply side solutions.

Energy Probe submits that EGI should be required to propose a list of IRPAs that it considers to be relevant to its IRP planning in the initial period of the IRP Framework.

Alternatives Proposed by Parties and their Experts

Based on the exchanges in the Hearing it is likely that ED/GEC, Pollution Probe and some other Parties, will mount a strong critique of EGIs IRP proposal. It is expected they will seek a framework that removes the mandate and responsibility for Gas IRP from EGI into some type of "collective approach". Demand Side Management (DSM) evolved in a similar manner partly because of the need to verify DSM results to validate the savings and the utility shareholder incentive.

Energy Probe is opposed to a collective approach. EGI should be given a clear mandate and responsibility for Gas IRP in its franchise areas. If IRP is successful in EGI's service areas then other utilities can implement IRP particularly in un-serviced areas. A collective approach would weaken the responsibility of EGI and increase risk to ratepayers. Moreover, a collective approach has the potential to be dominated by activists and promoters of various technologies at the expense of existing and prospective gas customers.

Energy Probe considers EGI's proposals ***as a First Generation Gas IRP Framework***.

However, there are several key matters still to be sorted out.

- How the Screening and Inclusion of IRPAs in the Asset Management Plan (AMP) will work and can EGI provide timely and transparent screening of these?
- How the Tests for Economic analysis will be finalized for comparing pipe and non-pipe IRPAs?
- How will Stakeholders, particularly ratepayers, interface with EGIs IRP Processes?

Details of Enbridge IRP Proposal

EGI's proposed AMP Binary Screening process is based on both the Binary Screen and Timing.

It is unclear if this is appropriate, or whether initially, different project thresholds should be used to avoid "missed opportunities", including supply side solutions such as the current Parkway Delivery Option (PDO). It is also unclear whether there is an appropriate balance between Stakeholder Consultation and process efficiency.

Based on the evidence provided in the Hearing, it is clear that the internal infrastructure planning process at Enbridge Gas is complex and involves many departments. Adding in the requirement for an IRP and evaluation of IRPAs will increase the complexity.
EGI should respond in Reply whether a reorganization of its Internal Planning process is needed to facilitate IRP and if so, what should this look like.

Energy Probe disagrees with EGI that the Scope of IRPAs should be broadened to include a wide range of potential IRPAs. As noted earlier, the utility role/scope should be **facilitating IRPAs**

and ensuring that the System Peak is met for all firm customers by either demand-side or supply side solutions.

Some parties have suggested EGI prepare a list of potential IRPAs to be considered but EGI rejects this. Energy Probe submits that EGI should be required to propose a list of IRPAs that it considers to be relevant to its IRP planning in the initial period of the IRP Framework.

Economic Evaluation of Facility and IRPAs

The division regarding economic evaluation ”tests” will continue into the argument phase and unfortunately will land on the Board’s lap.

Energy Probe submits that there is no basis to replace the E.B.O. 134 and E.B.O. 188 Guidelines for the facilities (pipe) base option. However, whether repurposing the E.B.O. 134 three stage test to compare IRPAs has not been addressed properly by either EGI or other Parties.

Guidehouse provides the most appropriate comments on this, but stops short of offering a solution. Energy Probe believes the perspective for comparing facilities and IRPA should be from ratepayer perspective, unlike DSM which is a benefit indirectly to ratepayers that do not participate in the programs.

Energy Probe submits the focus of IRP should be on system solutions that meet a constraint and that benefit ratepayers paying postage stamp transmission and distribution rates. The TRC plus used for DSM does not provide this perspective, nor do the other possible DSM tests such as Utility Cost Test and the Ratepayer Impact Measure.

The TRC Plus example that ED/GEC consultant Mr. Neme of Energy Futures Group Provided, and the discussion about this indicates that it is flawed by omitting the key inputs for the infrastructure option and for the IRPA, including collateral benefits in the IRPA, and using a discount rate of 4% similar to a DSM TRC Test. The discussion in the hearing with Energy Probe’s consultant leaves these issues unanswered.

Energy Probe notes the comparison that Guidehouse provided of the Current E.B.O. 134 DCF test to the ConEd BCA Handbook. This shows a Single Stage/Step Cost benefit analysis using the Utility Costs of Capital as the discount rate.

Based on the evidence, Energy Probe supports repurposing the E.B.O. 134 Facilities DCF plus, as the appropriate direction to proceed.

As discussed earlier, a Technical Working Group would provide the Board with appropriate recommendations and the models to perform the infrastructure and IRPA analyses.
There will be many questions to be addressed by the Working Group including:

- What are the inputs to an IRPA DCF plus - Capital and operating costs?
- What should the timeframe be?
- What should be the Discount rate -Utility Cost of Capital?

- Should the revenues and costs be included as for facilities?
- Should only a Stage 1 DCF be used or should a Stage 2 and 3 be considered if so what are the parameters for each?

Stakeholder Outreach and Engagement Process

Given the divisive issues around cost-benefit analysis, a Technical Working Group supported by consultants, should be established immediately after the Board's IRP Decision to develop the appropriate cost-benefit analysis.

EGI proposes that the review of the Asset Management Plan will be part of the annual rates case. Therefore, the normal regulatory process of filing evidence, interrogatories technical conference will occur but will be expanded by the inclusion of proposed IRPAs with the infrastructure projects.

Energy Probe is concerned that there is a missing Component in the Stakeholder Engagement. The annual Stakeholder Days are to provide broad participation while the review of the AMP will be a typical regulatory proceeding.

Energy Probe suggests that EGI consider forming an IRP Advisory Group lead by a Consultant to sort out the inevitable teething problems with implementing the OEB IRP Framework. The Model for this (although the Terms of Reference would differ) is the IESO Advisory Group. Members would include Board Staff, ratepayer representatives and first nations representatives.

IRPA Cost Recovery and Accounting Treatment Fundamentals

EGI is requesting like-for-like treatment of IRPA and infrastructure investments. Accordingly, the treatment of risk should be on the same basis as infrastructure projects. This means the risk is borne by EGI and is subject to the usual prudence considerations.

Energy Probe is not supportive of incentives above allowing the regulatory return on IRPA assets.

Future IRP Plan Applications

There is a lack of clarity regarding what will be presented in the AMP vs an LTC Application. Energy Probe understands that the AMP will identify system constraints or growth and potential facilities and IRPA Projects to address these. These will go into the forward years' list potential facilities and IRPA projects.

An LTC Application brings forward the proposed facilities and IRPA projects for approval, including complete details on why the IRP Plan was selected), land and environmental issues (where relevant), indigenous consultation (as appropriate) and conditions of approval.

Energy Probe requests EGI in its reply to clarify how the AMP and the LTC projects interface.

Energy Probe disagrees with EGIs proposal to be provided 25% leeway on costs of the IRP plan. This may be an appropriate level of definition for the AMP, but not in the resulting list of LTC projects. The individual projects should have the same cost flexibility range as current facilities projects.

Monitoring and Reporting

Energy Probe believes more clarity needs to be provided regarding the proposed Annual IRP Report. Currently EGI proposes to file prospectively:

- Long Range Gas Supply plan (information only),
- The Asset Management Plan (for review in Rates Case).

Energy Probe submits that to add value/information the Annual IRP Report should bridge the gap between the AMP and facilities and IRPA project Applications. It should therefore be stakeholder reviewed. The key decision is whether it should be for information only, like the Gas Supply Plan or approved by the Board. EGI needs to clarify this in its Reply Argument.

IRP Costs Deferral Account

Energy Probe accepts that implementing IRP will result in incremental costs not contemplated in EGIs deferred rebasing period. In principle EGI should be allowed to recover legitimate costs related to the IRP framework. Energy Probe has two concerns. First given EGIs current complex planning process there will be duplication and inefficiencies among departments and that reorganization is probably required. Second as an adjunct, there is no clear centre of focus for IRP. **EGI should address these concerns in its Reply Argument.**

Pilot Projects

Energy Probe Supports properly designed Pilot Projects to determine if there is customer support for IRPAs, such as Demand Response (DR).

Advanced Metering Infrastructure (AMI) Acknowledgement

EGI has not justified its AMI proposal. System expansion will in large part, occur in existing areas with gas infrastructure. Data from existing gate stations can provide significant information on future demand for the general service market. The models that provide forecast average demand are predictive to around 1%. Accordingly, there is no obvious need for AMI from a demand forecast perspective.

If specific demand profiles related to IRPAs (for example Demand Reduction IRPAs or fuel switching) then in the ramp up to the IRPA projects, special meters to collect data may be appropriate. This is the issue to be addressed, not widespread application of meters such as was

done in the electricity distribution sector. If there are other issues such as meter reading and billing accuracy EGI should specify these.

Energy Probe submits the Board should deny EGIs request and direct EGI to make case-specific AMI proposals as part of future IRPA projects.

Next Steps After Issuance of IRP Framework

Implementing IRP in conjunction with the EGI Rebasing Case is too late and given the massive amount of evidence in that case a preliminary detailed proposal should be produced for the first stakeholder Day in Early 2022. This would be a more realistic timetable and EGI should provide a "straw man" proposal in Reply Argument.

Approvals Sought by EGI

Despite a massive amount of evidence Interrogatories and Undertakings there remains a lack of clarity related to Items 2 and 3,

2. the EGI IRPA Binary screening criteria and assessment processes and the IRPA evaluation and
3. assessment processes (first and second stages),

and how these will fit into the Company's Gas Supply, Asset Management Plans, System Planning and Leave to Construct applications.

Unfortunately, there remains sufficient missing details to provide the requested approvals. This relates to the fact that the Company is still developing its IRP processes and this work has been interrupted by the Hearing.

Energy Probe submits that the Board should provide EGI approval of the Guiding Principles and its preliminary views/direction on a Gas IRP Framework, then direct EGI to prepare a Draft IRP Manual for review by the Board and Stakeholders. This should be provided by the end of 2021 for prospective approval in Q1 2022.

At this time, the other approvals sought by EGI can wait, except that the IRP Deferral Account should be approved to allow EGI to record IRP development costs

A. Overview

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). As part of that Application, Enbridge Gas requested that the OEB determine that its IRP Proposal is reasonable and appropriate, both in relation to the Dawn-Parkway System Expansion Project, and for application to future Enbridge Gas projects.

On April 28, 2020, the OEB issued a Notice of Hearing, that initiated a review of Enbridge Gas' IRP Proposal as a separate proceeding which is this proceeding.

On July 15, 2020, the OEB issued a Decision on Issues List and Procedural Order No. 2 that, among other things, scheduled procedural steps for this case. These steps included an August 5, 2020 deadline for parties planning to file evidence to file a letter describing the nature of the proposed evidence, and a September 10, 2020 deadline for Enbridge Gas to file additional evidence.

On July 29, 2020, OEB staff and Enbridge Gas filed descriptions of their proposed evidence. In its letter, Enbridge Gas requested an extension to file its additional evidence, from September 10, 2020 to October 15, 2020. In addition, Enbridge Gas requested that it be afforded the opportunity to file responding evidence to the evidence filed by OEB staff and intervenors.

On July 31, 2020, the OEB issued Procedural Order No. 3 that extended the deadline for Enbridge Gas to file its additional evidence to October 15, 2020.

Descriptions of Proposed Evidence:

Enbridge Gas:
Enbridge Gas indicated that it would file additional evidence that builds upon its original IRP Proposal and the IRP study conducted on its behalf by ICF Canada (ICF) (both of which are already part of the evidence for this proceeding). Enbridge Gas indicated that its additional evidence would consist of:

- a chronology of OEB directives, findings and recommendations regarding IRP;
- a jurisdictional review of IRP advances since the ICF study;and
- an illustrative IRP Process Plan that would include a proposal for incorporating IRP into Enbridge Gas' system planning processes.

OEB Staff:
OEB staff retained Guidehouse Canada Ltd. (Guidehouse) to prepare an IRP Research Report with the aim of generating expert analysis of natural gas IRP in New York State and assessing its relevance to natural gas IRP in Ontario. OEB staff stated that the IRP Research Report will provide a jurisdictional and expert analysis of natural gas IRP in New York State, in comparison

with each of the IRP issues in the issues list for the EB-2020-0091 proceeding and Enbridge Gas' IRP proposal, and recommendations for natural gas IRP in Ontario.
Enbridge Gas' reply letter of August 12, 2020 stated that Enbridge Gas expects it will need to file responding evidence to OEB staff's evidence.

Green Energy Coalition (GEC) & Environmental Defence (ED):
GEC filed a letter on behalf of itself and ED stating that they proposed to jointly commission to retain Chris Neme of the Energy Futures Group, and advised that their evidence will complement OEB staff's evidence by: focusing on key IRP framework issues in the Ontario context; drawing from IRP lessons learned in the electricity sector and assessing their applicability to the gas sector in Ontario; drawing from IRP lessons learned in the gas sector in jurisdictions other than New York; and drawing from Mr. Neme's experience in natural gas demand-side management in Ontario and across North America.

Federation of Rental-housing Providers of Ontario (FRPO):
On August 5, 2020, FRPO filed a letter indicating that it would present a process and approach for incorporating supply-side "contracted deliveries" as one of the resources to be considered by Enbridge Gas when conducting its IRP system planning. FRPO noted that its evidence would provide the OEB with information and data on the gas market and pipeline flow dynamics in Ontario and the opportunity for Enbridge Gas to make use of supply-side resources as part of its integrated plan, and would also address real or perceived barriers to implementation.

The request of FRPO to file evidence was denied by the OEB, the OEB indicated (in Procedural Order No. 5 of September 15, 2020) that the concerns of FRPO could be addressed by putting to Enbridge Gas proposals for evaluation criteria for supply-side alternatives, and suggestions for the timing to assess these alternatives, through the interrogatory process.

The OEB noted that Enbridge Gas' description of additional evidence indicates that this will include an IRP Process Plan that details how IRP would be integrated into its system planning activities going forward. Enbridge Gas also stated that historically supply-side alternatives, including "contracted deliveries", are considered as a component of evidence supporting an application for Leave to Construct. The OEB would like to explore the appropriate timing and approach to considering these supply-side alternatives as part of the IRP framework.
For these reasons, the OEB requires Enbridge Gas to provide details on the extent to which its additional evidence will address the approach to supply-side alternatives, including "contracted deliveries", as part of IRP. The OEB also requests that OEB staff indicate the degree to which supply-side alternatives will be considered in its evidence regarding IRP in New York State.

B. Procedural Steps

The Board established the following Procedural steps and Dates

Written Interrogatories:	January 12, 2021.
Responses to Interrogatories:	February 2, 2021
Transcribed Technical Conference:	February 10-12 2021,
Presentation Day:	February 19, 2021
Oral Hearing:	March 1-5 2021
Argument-in-Chief:	March 17, 2021
Argument by Parties:	March 31, 2021
Reply Argument by EGI	April 17, 2021

C. Purpose of Enbridge Gas' IRP Framework Proposal

The OEB determined that this proceeding will include *broad consideration of the definition and goals of IRP, and the process and approach for incorporating IRP into Enbridge Gas' system planning process, including consideration of alternatives to Enbridge Gas' IRP Proposal.*[1]

Issues List[2]

Enbridge Gas - Integrated Resource Planning Proposal

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

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

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

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?*

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

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

[1] Procedural Order #2 and Decision on Issues List July, 15 2020
[2] *Ibid 1*

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?*

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?*

9. *What incentives are appropriate to ensure effective IRP outcomes?*

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

Scope of Hearing

Energy Probe Submission

Several parties have interpreted the Objective of this Hearing in the broadest possible way, including matters that are outside of the Board's jurisdiction and the mandate of EGI as a gas utility under the Provisions of the Act and Regulations.

At a high level, the Framework for IRP should be consistent with the Objectives for Gas in the OEB Act:

Board Objectives, Gas

2 *The Board, in carrying out its responsibilities under this or any other Act in relation to gas, shall be guided by the following objectives:*

1. *To facilitate competition in the sale of gas to users.*

2. *To inform consumers and protect their interests with respect to prices and the reliability and quality of gas service.*

3. *To facilitate rational expansion of transmission and distribution systems.*

4. *To facilitate rational development and safe operation of gas storage.*

5. *To promote energy conservation and energy efficiency in accordance with the policies of the Government of Ontario, including having regard to the consumer's economic circumstances.*

5.1 To facilitate the maintenance of a financially viable gas industry for the transmission, distribution and storage of gas.

6. To promote communication within the gas industry.

A framework for Gas Integrated Resource Planning should be consistent with these Objectives.

Energy Probe Submission

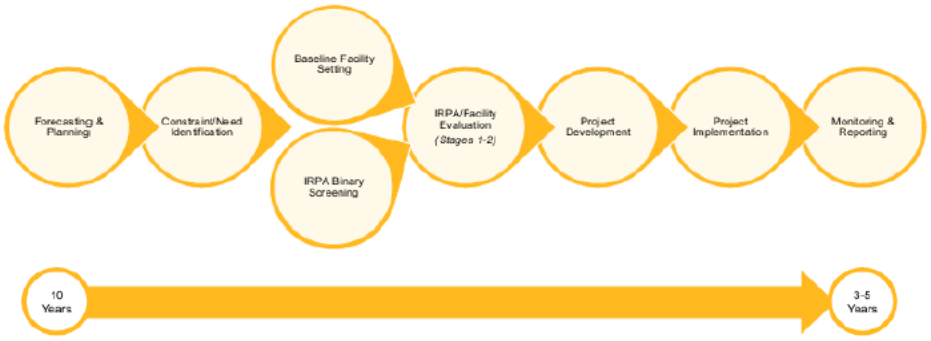
Consideration of other matters, such as broad energy planning and multi-fuel planning are Policy Issues for the Government and the Ministry of Energy, Northern Development and Mines to consider and provide appropriate policy direction to the Board and Enbridge Gas.

Hence, Energy Probe requests that the Board to render its Decision within the boundaries of the Act and focussed on the Issues List and on a Regulatory Framework that will facilitate Enbridge doing what it does best - meeting the Board's Objectives for Gas and provision of gas service effectively in its Ontario franchise areas.
This requires the Board to resist broadening the scope to inter-energy planning solutions and resisting any potential for Enbridge Gas Inc to reinvent itself and transition into non-gas energy utility.

Enbridge Gas' IRP Framework Proposal

The Enbridge Gas' IRP has evolved over the course of the proceeding, due to its own consideration of the Framework and resulting from input from other parties in the proceeding.[3]

Figure 1 – Enbridge Gas proposed IRP process



The general Flow Chart is a useful starting point. However, the current proposal has evolved into greater detail.

[3] EGI IRP Presentation on Presentation Day Slide 4

In its long range System Planning, Enbridge first identifies one or more "constraints" to meeting future peak customer gas demand at various points in its gas transmission and distribution system, that require screening and evaluation (magnitude, timing etc.). Under today's planning process one or more "baseline" facility options are identified, these options then proceed into the more detailed evaluation and end up in the Asset Management Plan (5 year horizon).

In the proposed IRP framework, Enbridge proposes to introduce a Screening Step that considers non-facility (non-pipe) options, or combinations of facilities and alternatives (IRPAs) such as demand response (DR) or Geo-targeted Demand Side Management (GDSM), and potentially energy and/or fuel-switching, such as air or ground source heat pumps. If the latter are to be considered, as some Parties propose, this adds a large and complex additional dimension to the Framework for Gas IRP.

Energy Probe Submission

Energy Probe is supportive in principle of Enbridge's proposed IRP approach. However, the scope of IRPAs should be those that Enbridge "controls" so it can meet its customers' needs as required by the Act and Regulations. Enbridge should not consider third party solutions, unless these are guaranteed 100% by Enbridge without **risk** to their gas customers.

The Issue of Risk is an area where Energy Probe fundamentally disagrees with Enbridge. An IRPA is a Gas System Solution that should not transfer the utility requirement of service to ratepayers.

In its Argument in Chief (AIC) EGI states:

> 49. Enbridge Gas' view is that the Company should not bear the risk that an approved IRP Plan may not succeed in creating the forecast peak demand reduction.[68] IRP is a new activity, and it is being pursued for the benefit of the Company's ratepayers. Enbridge Gas' position is that where an IRP Plan does not meet expectations, and therefore it needs to be expanded, or where facilities need to be built notwithstanding the IRP Plan, then the costs of the additional activities should be paid by ratepayers. [69 Footnote Exhibit I.EP.6 and Exhibit I.EP.14]

There are several reasons why transfer of risk from IRPAs to customers is not appropriate.

First as noted above, the utility has the requirement to serve its customers. How it does so is for it to determine. Second IRPAs may include system solutions, which EGI controls directly, for example Renewable Natural Gas and hydrogen. Third, if it is allowed to Rate Base IRPAs as EGI proposes, then it will earn its return on the Rate Base. Last, customers already take the risk from Demand Side Management. If Geo-targeted DSM is accepted as an IRPA this will continue.

Enbridge has not made a case for compensation or incentives due to increased risk. If it believes that retaining the Risk for both infrastructure and IRPA projects is not appropriate it can request such consideration from the Board, **but should do so now before the IRP Framework is in place.**

D. Lessons Learned from Other Jurisdictions

The studies filed by Enbridge, Board Staff and Environmental Defence/Green Energy Coalition consultants provide a limited amount of experiential information.

The consultants noted precedents are for electricity transmission and distribution (Vermont) or include utilities that provide both electricity and gas, pursuing fuel switching solutions (New York State)

A primary core issue is how pipe and non-pipe IRPAs may be evaluated from an economic cost/benefit perspective. There has been considerable effort into addressing this issue. At this point in time t***he reviewed jurisdictions do not have a single approach that examines the costs and benefits from a utility, customer and societal perspectives.*** Rather, they use different "tests" to inform the utility, regulator, and other stakeholders. This is not surprising, since the "tests" for pipe infrastructure solutions also differ in the reviewed jurisdictions.

There is no reviewed jurisdiction that uses a methodology similar to the OEB Guidelines – E.B.O. 134 DCF (Discounted Cash Flow) Profitability Index or E.B.O.188 Profitability Index.

The E.B.O.134 Report is clear that "Any project brought before the Board for approval should be supported by all data used by the Applicant in reaching its conclusion that the project is viable. The utilities and other interested parties may use alternative analyses, but these and the results must be presented at the relevant hearing. The Board will continue to weigh the various benefits against the various disadvantages as it always has in reaching its decision in the public interest".

<u>Energy Probe Submission</u>

The first "lesson learned" , is that no jurisdiction has economic feasibility "tests" for pipe infrastructure solutions similar to the Ontario Energy Board Guidelines[4].

The second is that in New York State, "tests" for economic feasibility are not the same as the Total Resource Cost (TRC) and TRC Plus tests approved by the OEB to evaluate Demand Side Management (DSM) Measures.

The Board should be cautious about directing Enbridge to abandon its pipeline economic feasibility tests as some "experts" (without any experience of these) propose to move to a TRC

[4] E.B.O 134 and E.B.O.188 Guidelines for System Expansion

Plus test or similar[5]. The primary reason for retaining the Boards Guidelines is that the majority of IRP solutions will be pipeline infrastructure, while the minority will be or include IRPAs

Enbridge has proposed a "DCF plus test". Energy Probe supports this approach, in principle, as a starting point, subject to certain specific caveats about the "test" that will be discussed later in Section on Economic Feasibility Tests.

E EGI IRP Framework and Guiding Principles

E-1 Approvals Requested and Guiding Principles

Review of the approvals sought by Enbridge Gas for the IRP Framework and Guiding Principles are an appropriate first Step.

> Enbridge Gas requests that the OEB determine that the framework direction set out within this IRP Proposal is reasonable and appropriate. Approval of the IRP Proposal will enable Enbridge Gas to create actionable IRP plans to support deferment, avoidance or reduction of future infrastructure requirements and to gain important implementation experience. When a need is identified in the planning process, it will be assessed to determine the appropriateness of developing IRPAs to address it. This approach will ensure that Enbridge Gas has adequate lead time to fully assess, put forward to the OEB and verify the effectiveness of IRPAs to address peak period demands, deferring or reducing the need to construct facility alternatives. Where approvals are required in relation to IRPA(s)-specific spending, cost recovery, ownership or other items, Enbridge Gas will seek separate approval from the OEB, as appropriate.[6]

Enbridge Gas' IRP Proposal and illustrative process plan are underpinned by the following Guiding Principles:

> i. Reliability and Safety - In considering IRPAs as part of system planning processes, Enbridge Gas' system design principles cannot be compromised, and the reliable and safe delivery of firm contracted peak period natural gas volumes to Enbridge Gas' customers must remain of paramount importance.
>
> ii. Cost Effectiveness – IRPAs must be cost-effective (competitive) compared to other facility and non-facility alternatives.
>
> iii. Public Policy – IRP will be considered in a manner to ensure that it is supportive of and aligned with public policy, where appropriate.

[5] ED/GEC/Energy Futures Report Page 8 and Page 32
[6] EGI Additional EvidenceIRP Proposal Exhibit B Para 3

iv. 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. Screening criteria are suggested later in this evidence.[7]

Energy Probe Submission

Energy Probe supports in principle the OEB approving the Framework and Guiding Principles proposed by EGI. However there is a lack of sufficient supporting information and the "devil is in the details".

EGI should produce a Draft IRP Manual that shows how the components of the IRP Plan and process fit together. The IRP Manual should be subject to Stakeholder Review before being approved as an OEB IRP Guideline. The analogy is the various DSM Plans and Guidelines that have been generated, stakeholdered and approved by the Board.

E-2 EGI IRP Proposal Elements

The current key components of EGI's proposed IRP are:

- Long Range Gas Supply Plan (20 years for General Market and 10 years for Contract Market) - identifies demand growth and system constraints (as well as sources of supply),
- Asset Management Plan (AMP) - identifies Potential Mix of Assets to meet future System Needs,
- Proposed Binary Screening System - considers potential IRPAs and adds these into the AMP as potential projects[8],
- 2-Stage Evaluation Process - DCF Plus evaluation of Pipe and IRPAs,
- Leave to Construct Applications - For Approval of pipe and/or IRPAs,
- Stakeholder Outreach and Engagement Processes in order to identify, record and address any stakeholder concerns early in the IRP assessment process,
- Monitoring and Reporting

The 2021-2025 AMP contains 2,114 potential projects with a Capital Spend of $6.3 billion[9]. The Binary Screening provides 548 projects with a potential capital spend of $2.38 Billion. However

[7] *Ibid* 6 Para 22
[8] Exhibit J1.1 Figure 1 and Figure 2
[9] Undertaking J1.1, Table 1

EGI proposes to screen out all Replacement & Relocation projects less than $10 million due to timing considerations.

Energy Probe Submission

EGI's proposed AMP Binary Screening process is based on both the Binary Screen and Timing.

It is unclear if this is appropriate, or whether initially, different project thresholds should be used to avoid "missed opportunities", including supply side solutions, such as the current Parkway Delivery Option (PDO).

It is also unclear whether there is an appropriate balance between Stakeholder Consultation and process efficiency.

EGI recognizes this:

> If the Board were to ultimately determine that some form of adjudicative process was appropriate to establish as part of an IRP Framework, then the Company believes that, because its annual updates to the Asset Management Plan are proposed to be filed as part of its annual rates setting proceedings, it would be most appropriate for the Board to expand the scope of those to include a third phase (Phase 3) dedicated specifically to IRP-related adjudication. The Board should limit the expanded scope of Phase 3 to those IRP decisions not to pursue investment in IRPA(s) raised by intervenors that cannot be resolved through the Company's proposed stakeholder engagement process (Component 2).[10]

Based on the evidence provided in the Hearing, it is also clear that the internal infrastructure planning process at Enbridge Gas is complex and involves many departments[11]. Adding in the requirement for an IRP and evaluation of IRPAs will increase the complexity.
EGI should respond in Reply whether a reorganization of its Internal Planning process is needed to facilitate IRP and if so, what should this look like.

E-3 Scope of Enbridge Gas IRPAs

As noted in its AIC[12],

> 55. Enbridge Gas is permitted to undertake a broad range of activities within the utility corporation, where such activities are related to energy conservation, promotion of cleaner energy sources[13] and ground source heat pumps. While such activities may heretofore not have been considered as a distribution activity, Enbridge Gas submits that

[10] J1.3
[11] J1.8 Attachment 2
[12] AIC Paragraph 55
[13] Order in Council No. 1537/2006 and Order in Council No. 1540/2009, RNG Enabling Program

> this should not be the conclusion in the context of IRP. To the contrary, activities conducted within an IRP Plan are directed at providing an alternative to distribution (or transmission or storage) facilities, and should be treated in the same manner as the infrastructure being delayed or avoided.

Energy Probe Submission

Energy Probe disagrees with Enbridge that the Scope of IRPAs should be broadened to include a wide range of potential IRPAs. As noted earlier, the utility role/scope should be **facilitating IRPAs** and ensuring that the System Peak is met for all firm customers by either demand-side or supply side solutions.

Some parties have suggested EGI prepare a list of potential IRPAs to be considered but EGI rejects this[14]

> 61.Instead, what Enbridge Gas is seeking in the OEB's IRP Framework is an indication of what types of IRPAs are (or are not) appropriate for the Company to consider within an IRP Plan. Enbridge Gas can then apply that guidance as it considers whether and how an identified need/constraint can be met through an IRP Plan. As stated by Mr. Stiers in testimony, "… to sum it up, one of the priorities is that we ask that the framework not overly restrict consideration of IRPAs, or their ownership, their operation, or their procurement at this early stage.[15]"

Energy Probe Submission

Energy Probe submits that EGI should be required to propose a list of IRPAs that it considers to be relevant to its IRP planning in the initial period of the IRP Framework.

F. Alternatives Proposed by Parties and their Experts

F-1 Board Staff Experts Guidehouse-The IRP experience in New York.

The key findings of Guidehouse include:

- Development of a Benefit Cost Assessment (BCA) Manual by Con-Edison
- Comparison of "Tests" used in NY BCA with the OEB Economic Feasibility Guidelines
- Pilot Programs to reduce peak demand for gas using Air-Source Heat Pumps.

Guidehouse Recommendations include (paraphrasing):

[14] AIC Paragraph 61
[15] 3Tr.97

- The OEB should encourage the development of a comprehensive Benefit Cost Analysis (BCA) Handbook for Gas IRP, or supplemental guide to the approach outlined in E.B.O. 134.
- The OEB should work to more closely align and sequence the planning activities for gas supply, demand, infrastructure, energy efficiency (EE)/demand-side management(DSM), IRP, Utility System Plans (USPs) and other relevant matters, wherever possible.
- **The OEB should develop the gas IRP framework to be consistent with the regulatory framework for natural gas infrastructure approvals**.
- The OEB considers provincial policy in its decision-making and is guided by statutory objectives (including a statutory objectives related to natural gas the OEB should clearly define the underlying assumptions regarding applicable provincial policy goals.
- The OEB should work to establish a common understanding amongst stakeholders for the gas IRP process and how benefits, costs, risks, and other parameters will be shared by shareholders, ratepayers, and other parties.
- The OEB should develop the gas IRP framework to provide utilities with sufficient flexibility to quickly adjust program designs, budgets, implementation plans, and other processes to adapt the IRP programs to each situation. Furthermore, incentives such as Earnings Adjustment Mechanisms (EAMs) should be considered to incentivize innovative approaches.
- Should the OEB and the IESO consider developing a specific electric Non-Wires Alternative (NWA) framework in the future, the OEB should consider aligning Gas IRP and Electricity IRP frameworks to share the cost and resource investments to develop operational processes, program design, benefit-cost analyses, and other aspects of either IRP proceeding.

F-2 ED/GEC Expert Energy Futures Group (EFG)

EFG reviewed the experience with Electric IRP in Vermont and the Stakeholder Process in that State. The National Standard Practice Manual (NSPM) for Distributed Energy Resources was also reviewed[16]

The key findings included:

- The NSPM provide guidance on the type of framework that is appropriate.
- The TRC plus Test is more appropriate than the EGI DCF plus for several reasons cited in the evidence.
- A Stakeholder IRP Planning Committee should be established in Ontario.

Recommendations (Paraphrasing)

The goals of a Gas IRP framework for Ontario should be:

1. Reliability:

[16] The *National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources* (NSPM for DERs)

2. Cost minimization
3. Risk minimization:
4. Alignment with other governmental policy objectives
5. Equitable consideration of all viable resource options.
6. Alignment of utility interests with IRP goals.

EFG makes Multiple Conclusions about the following:

- Process to Incorporate IRP into Enbridge's System Planning Processes
- Industry Best Practices
- Screening Criteria & Methodology for Comparing IRPAs and Facility Projects
- Benefit-Cost Analysis
- Cost Recovery and Financial Incentives.

Energy Probe Submission

Based on the exchanges in the Hearing it is likely that ED/GEC, Pollution Probe and some other Parties, will mount a strong critique of EGIs IRP proposal. It is expected they will seek a framework that removes the mandate and responsibility for Gas IRP from EGI into some type of "collective approach". DSM evolved in a similar manner partly because of the need to verify DSM results to validate the savings and the utility shareholder incentive.

Energy Probe is opposed to a collective approach. EGI should be given a clear mandate and responsibility for Gas IRP in its franchise areas. If IRP is successful in EGI's service areas then other utilities can implement IRP particularly in un-serviced areas. A collective approach would weaken the responsibility of EGI and increase risk to ratepayers. Moreover, a collective approach has the potential to be dominated by activists and promoters of various technologies at the expense of existing and prospective gas customers.

Energy Probe considers EGI's proposals ***as a First Generation Gas IRP Framework***.

However, there are several key matters still to be sorted out.

- How the Screening and Inclusion of IRPAs in the AMP will work and can EGI provide timely and transparent screening of these.
- How the Tests for Economic analysis will be finalized for comparing pipe and non-pipe IRPAs.
- How will Stakeholders, particularly ratepayers, interface with EGI's IRP Processes.

G. Details of Enbridge IRP Proposal

Once the IRP Framework is issued, EGI should then move to implement this.

However, there are several matters to address -assuming they are not part of the Board's Decision and require more development. These may include:

- Technical Working Group to review the DCF Plus test and if the Board wishes, the TRC Plus Test,
- A Stakeholder Group to review the EGI draft IRP Manual, and
- An Application to review the 2021-2025 AMP and IRPAs.

Energy Probe Submission

EGI's proposed AMP Binary Screening process is based on both the Binary Screen and Timing.

It is unclear if this is appropriate, or whether initially, different project thresholds should be used to avoid "missed opportunities", including supply side solutions such as the current Parkway Delivery Option (PDO). It is also unclear whether there is an appropriate balance between Stakeholder Consultation and process efficiency.

Based on the evidence provided in the Hearing, it is clear that the internal infrastructure planning process at Enbridge Gas is complex and involves many departments. Adding in the requirement for an IRP and evaluation of IRPAs will increase the complexity.
EGI should respond in Reply whether a reorganization of its Internal Planning process is needed to facilitate IRP and if so, what should this look like.

Energy Probe disagrees with EGI that the Scope of IRPAs should be broadened to include a wide range of potential IRPAs. As noted earlier, the utility role/scope should be **facilitating IRPAs** and ensuring that the System Peak is met for all firm customers by either demand-side or supply side solutions.

Some parties have suggested EGI prepare a list of potential IRPAs to be considered but EGI rejects this. Energy Probe submits that EGI should be required to propose a list of IRPAs that it considers to be relevant to its IRP planning in the initial period of the IRP Framework.

G-1 Economic Evaluation of Facility and IRPAs

A central and divisive issue in the IRP Framework is the Economic Evaluation for infrastructure and IRPAs.

Enbridge describes its proposal for a DCF Plus calculation that provides a Net Present Value comparison in its evidence and reiterates this in its AIC[17].

> DR. HIGGIN: Right. In electricity the term used is coincident peak demand. Now, are you taking into account that aspect here; that is, coincidence?
> MS. VAN DER PAELT: No, Dr. Higgin, I don't think this is about coincidence. This is reflecting -- so stage 2 is reflecting the customers' costs, so dependent -- on demand response, we obviously have not run a demand response program yet, but our understanding or my understanding is that sometimes there is what they call a snap-back.

[17] AIC paragraphs 87-91

So the customer reduces their o0thermostat, does not use the commodity from the peak period, so let's say from 5:00 'til 8:00, but then when that peak period is passed they actually increase their temperature to get their facility or their home up to a desired comfort level, and the savings have been shifted or the consumption has been shifted but hasn't actually reduced.
So we don't have the -- we've just seen that through articles that have been written about demand response, so that would be, well, called third-party research. We have no direct evidence at this point**,** but that's my understanding on demand response programs at the residential level.
DR. HIGGIN: Thank you for your response.

It is clear that more work needs to be done[18]:

> "91.Enbridge Gas acknowledges that there is more work to do in order to determine all the appropriate inputs into a DCF+ evaluation. As Guidehouse indicated in testimony, "our finding is that the existing tests leave a lot of gaps and uncertainties about how they would be applied to IRP"[19]. On this point, Enbridge Gas accepts the Guidehouse recommendation that parties should work to complete a Benefit Cost Analysis (BCA) Handbook that would be used as a key input for economic evaluations.109 However, Enbridge Gas also notes and highlights Guidehouse's comments that the EBO 134 approach could be repurposed to compare NPV between IRP and facilities options, and that a BCA Handbook for gas IRP in Ontario could be used as an input into the Company's proposed EBO 134/DCF+ evaluation approach."

EGI notes that.

> "92 EFG does not support Enbridge Gas' proposed DCF+ approach. Among other things, EFG argues that this approach is not used for evaluation of IRP alternatives in other jurisdictions, and that in any event it is not the proper test to use to evaluate cost-effectiveness. Instead, EFG argues for the use of a Total Resource Cost (TRC+) type evaluation, similar to what is used for evaluating DSM programs.[20]"

<u>Energy Probe Submission</u>

The division regarding economic evaluation "tests" will continue into the argument phase and unfortunately will land on the Board's lap.

Energy Probe submits that there is no basis to replace the E.B.O. 134 and E.B.O. 188 Guidelines for the Facilities (pipe) Base Option. However, repurposing the E.B.O. 134 three stage test to compare IRPAs has not been addressed properly by either EGI or other Parties

[18] AIC Paragraphs 91 and 92
[19] 4Tr.17-18
[20] EFG Report, pages 33-34

Guidehouse provides the most appropriate comments on this, but stops short of offering a solution[21]. Energy Probe believes the perspective for comparing facilities and IRPA should be from ratepayer perspective unlike DSM which is a benefit indirectly to ratepayers that do not participate in the programs.

Energy Probe submits the focus of IRP should be on system solutions that meet a constraint and that benefit ratepayers paying postage stamp transmission and distribution rates. The TRC plus used for DSM does not provide this perspective, nor do the other possible DSM tests such as Utility Cost Test and the Ratepayer Impact Measure.

The TRC Plus example that ED/GEC Consultant with Mr. Neme of Energy Futures Group provided[22] and the discussion about this indicates it is flawed by omitting the key inputs for the infrastructure option and for the IRPA, including collateral benefits in the IRPA, and using a Discount rate of 4% similar to a DSM TRC Test. The discussion in the Hearing with Energy Probe's consultant leaves these issues unanswered[23].

In its AIC EGI states:

> "Enbridge Gas believes that its proposed DCF+ evaluation approach will provide more useful information to parties and the Board about the impacts on ratepayers. That is consistent with the OEB's statutory objective to protect consumers with respect to prices and to promote energy efficiency in accordance with the policies of the Government of Ontario, including having regard to the consumer's economic circumstances[24]."

Energy Probe notes the comparison that Guidehouse provided of the current E.B.O. 134 DCF test to the ConEd BCA Handbook[25] This shows a Single Stage/Step Cost benefit analysis using the Utility Costs of Capital as the discount rate.

Based on the evidence, Energy Probe believes that repurposing the E.B.O. 134 Facilities DCF plus, as the appropriate direction to proceed. As discussed earlier, a Technical Working Group would provide the Board with appropriate recommendations and the Models to perform the infrastructure and IRPA analyses. There will be many questions to be addressed by the Working Group including:

- What are the inputs to an IRPA DCF plus - Capital and operating costs?
- What should the timeframe be?
- What should be the Discount rate -Utility Cost of Capital?
- Should the revenues and costs be included as for facilities?
- Should only a Stage 1 DCF be used or should a Stage 2 and 3 be considered if so what are the parameters for each?

[21] 4 Tr 59-61
[22] Exhibit JT3.10
[23] 4 Tr 111-112 and 4Tr 116-117
[24] AIC Paragraph 96
[25] TC Undertaking JT 3.10(b)

G-2 Stakeholder Outreach and Engagement Process

Enbridge has proposed a three component Stakeholder Engagement process, including Indigenous stakeholders:

> Component 1: Gathering of Stakeholder Engagement Data and Insight (Ongoing)
>
> Component 2: Stakeholder Days (Annual Review)
>
> Component 3: Targeted Engagement (Geo-Targeted)

In its AIC EGI indicates[26]:

> "108. In addition to the three Components described above, Enbridge Gas also 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 and interest. Topics that might be addressed include potential IRPAs, determination of the best approach to consider avoided costs and benefits for IRPAs and facility alternatives, and the relevant development of natural gas IRP in other jurisdictions."

Energy Probe Submissions

Enbridge may have "put the cart before the horse". Given the divisive issues around Cost-Benefit Analysis, the Technical Working Group supported by consultants, should be established immediately after the Board's IRP Decision.

Enbridge proposes that the review of the Asset Management Plan will be part of the annual rates case. Therefore the normal regulatory process of filing evidence, interrogatories technical conference will occur, but will be expanded by the inclusion of proposed IRPAs with the infrastructure projects.

Energy Probe is concerned that there is a missing component in the Stakeholder Engagement. The annual Stakeholder Days are to provide broad participation and the review of the AMP will be a typical regulatory proceeding.

Energy Probe suggests that EGI consider forming an IRP Advisory Group lead by a Consultant to sort out the inevitable teething problems with implementing the OEB IRP Framework. The Model for this (although the Terms of Reference would differ) is the IESO Advisory Group. Members would include Board Staff, ratepayer representatives and first nations representatives.

[26] AIC Paragraph 108

G-3. IRPA Cost Recovery and Accounting Treatment Fundamentals

Enbridge Gas submits that treating the costs (either or both capital and O&M) associated with planning, implementing, administering, measuring and verifying the effectiveness of its investments in IRPAs in the same manner as the costs for facility expansion/reinforcement projects (capitalized to rate base) that IRP will defer, avoid or reduce, is reasonable and appropriate.[27]

EGI appropriately distinguishes DSM from IRP and IRPAs: DSM is aimed broadly at reducing overall annual demand, in part to reduce overall infrastructure requirements and to reduce customers' annual energy costs. In contrast, IRP is aimed at reducing peak demand in specific areas with identified constraints, in order to reduce or avoid specific infrastructure requirements. Not surprisingly EGI "is open to considering additional incentives" based on net benefits achieved as in some other jurisdictions[28].

Energy Probe Submission

EGI is requesting like-for-like treatment of IRPA and infrastructure investments. Accordingly, the treatment of risk should be on the same basis as infrastructure projects. This means the risk is borne by EGI and is subject to the usual prudence considerations.

Energy Probe is not supportive of greater incentives above allowing the regulatory return on IRPA assets.

H. Future IRP Plan Applications

Enbridge Gas is seeking OEB approval of a Leave to Construct (LTC)-like process to review and approve a proposed IRP Plan designed to meet an identified need/constraint148, with Enbridge Gas being given flexibility to adjust the IRP Plan without further OEB review as long as any costs being added are less than 25% of the total approved cost.

In the near term, while IRP is a nascent activity, Enbridge Gas expects that it would likely seek OEB approval for any IRP Plan (including Pilot Projects) regardless of whether the forecast cost exceeds the LTC threshold. This will allow the Company to gain comfort that its IRP proposals are consistent with the OEB's expectations and will provide clarity regarding appropriate accounting treatment and eligibility of IRPAs.

Enbridge Gas expects that its IRP Plan approval application will include information similar to what is found in a facilities LTC application.152 Examples include purpose, need and timing type evidence

[27] Exhibit B para. 74.
[28] AIC paragraph 126

(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.

Energy Probe Submission

There is a lack of clarity regarding what will be presented in the AMP vs an LTC Application. Energy Probe understands that the AMP will identify system constraints or growth and potential facilities and IRPA Projects to address these. These will go into the forward years' list potential facilities and IRPA projects.

An LTC Application brings forward the proposed facilities and IRPA projects for approval, including complete details on why the IRP Plan was selected), land and environmental issues (where relevant), Indigenous consultation (as appropriate) and conditions of approval.

Energy Probe requests that EGI in its reply clarify how the AMP and the LTC projects interface.

Energy Probe disagrees with EGIs proposal to be provided 25% leeway on costs of the IRP plan. This may be an appropriate level of definition for the AMP, but not in the resulting list of LTC projects. The individual projects should have the same cost flexibility range as current facilities projects.

H-1 Monitoring and Reporting

Enbridge Gas proposes to file an annual IRP Report with the OEB, as part of either its annual Rates application or Non-Commodity Deferral Account Clearance and Earnings Sharing Mechanism application, or as otherwise directed by the Board.

Energy Probe Submission

Energy Probe believes more clarity needs to be provided regarding the proposed Annual IRP Report. Currently EGI proposes to file prospectively

- Long Range Gas Supply plan (information only)
- The Asset Management Plan (for review in Rates Case)

Energy Probe submits that to add value/information the Annual IRP Report should bridge the gap between the AMP and facilities and IRPA project Applications. It should therefore be stakeholder reviewed. The key decision is whether it should be for information only, like the Gas Supply Plan or approved by the Board. **EGI needs to clarify this in its Reply Argument**.

H-2 IRP Costs Deferral Account

Enbridge Gas is seeking OEB 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) for future recovery during the current deferred rebasing term.

Energy Probe Submission

Energy Probe accepts that implementing IRP will result in incremental costs not contemplated in EGIs deferred rebasing period. In principle EGI should be allowed to recover legitimate costs related to the IRP framework. Energy Probe has two concerns

First given EGIs current complex planning process there will be duplication and inefficiencies among departments and that reorganization is probably required.

Second as an adjunct, there is no clear centre of focus for IRP.

EGI should address these concerns in its Reply Argument.

H-3 IRP Pilot Project Proposal

Enbridge Gas believes that a reasonable timeline to identify, design, and deploy two 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. Particularly in relation to the comprehensive IRP Pilot Project, there will be considerable work to be done, so even that timeline may be challenging to meet.

Energy Probe Submission

Energy Probe Supports properly designed Pilot Projects to determine if there is customer support for IRPAs, such as Demand Response (DR).

H-4 Advanced Metering Infrastructure (AMI) Acknowledgement

Enbridge Gas is seeking an indication of the OEB's support for the role of AMI as an important enabler of successful IRP and IRPAs. Alternately, or additionally, the Company is asking for acknowledgement from the OEB that without AMI – which is not being requested at this time - the Company will need to rely on system modelling around less certain or less well tested solutions to meet demand versus actuals.

In this proceeding, Enbridge Gas is seeking OEB acknowledgement that AMI is an enabler of IRP and IRPAs such as Demand Reduction (DR). This indication of support will give Enbridge Gas confidence to consider and potentially request approval for targeting key geographic areas

for AMI deployment where future constraints are identified and where AMI might be useful in evaluating IRPAs' effectiveness.

Energy Probe Submission

EGI has not justified its AMI proposal.

System expansion will in large part, occur in existing areas with gas infrastructure. Data from existing gate stations can provide significant information on future demand for the general service market. The models that provide forecast average demand are predictive to around 1%. Accordingly, there is no obvious need for AMI from a demand forecast perspective.

If specific demand profiles related to IRPAs (for example Demand Reduction IRPAs or fuel switching) then in the ramp up to the IRPA projects, special meters to collect data may be appropriate. This is the issue to be addressed, not widespread application of meters such as was done in the electricity distribution sector.

If there are other issues such as meter reading and billing accuracy EGI should specify these.

Energy Probe submits the Board should deny EGIs request and direct EGI to make **case-specific AMI proposals** as part of future IRPA projects

I. Next Steps After Issuance of IRP Framework

Depending upon the ultimate timing of issuance of an IRP Framework, Enbridge Gas expects to prepare and file its first AMP including initial IRP analysis as part of its 2024 Rebasing evidence to be filed in Q4 2022. The same AMP would also be filed as part of the Company's Phase 2 evidence for the 2023 Rate Case[29].

Energy Probe Submission

Implementing IRP in conjunction with the EGI Rebasing Case is too late and given the massive amount of evidence in that case a preliminary detailed proposal should be produced for the first stakeholder Day in Early 2022. This would be a more realistic timetable and EGI should provide a "straw man" proposal in Reply Argument.

J. Approvals Sought by EGI

[29] Enbridge Gas Presentation Day , slide 7 and PD Tr.23-24

EGI witnesses referred Commissioner Frank to 4 exhibits that address the approvals EGI is seeking.

> MS. FRANK: Is it something that's already in evidence at the presentation day or elsewhere?
> MR. STIERS: It absolutely is and I'll give you some references, if that's helpful.
> MS. FRANK: That would be better, that would be preferred.
> MR. STIERS: Slide 6 of our presentation day should be the approvals sly.(SIC) Aside from that, we do have a summary of the approvals that are being sought at Exhibit I CCC 3.
> We also speak to the acknowledgment we're seeking related to AMI at Exhibit I, Energy Probe 1 and --
> MS. FRANK: But you're not actually -- other than in the -- it's something that's an essential aspect of a step in the process, but you're not looking for approval of the AMI?
> MR. STIERS: Correct.
> MR. STIERS: I think what we're looking for is an acknowledgment of the benefits that AMI would afford IRP. I don't think the framework -- I hadn't contemplated that the framework would get into the details of when exactly that approval should or shouldn't come, but I'll leave that to the Board to decide as well.
> The final point I would make is the response at Exhibit I-Staff-17. We discuss non-gas solutions and we've asked for confirmation that non-gas solutions -- and we give examples like electric air-source heat pumps, geothermal and district energy are appropriate to be considered in the range of possible and cost effective IRPAs, and I think that's a fair summary from my perspective.
> MS. FRANK: That's a good start and, Mr. Stevens, as we go through this if there are other items that occur that you want to add to the list that aren't in one of these, that is helpful.

In Argument-In-Chief- EGI Sets out its request[30]:

> 39.As part of the IRP Framework that will be issued by the OEB, Enbridge Gas is requesting that the Board consider and approve each of the elements or items listed below. Details for each are found on the following pages.
>
> i. 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.*
>
> ii. 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 need/constraint (including allowing for consideration of a variety of ownership, operation and/or procurement scenarios for each).*

[30] AIC Paragraph 39

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.* 1. Identification of Constraints: *The Company'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).*

2. 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.*

3. 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 steps. First, the Company will determine whether potential IRPAs could meet the identified*
constraint need. If yes, then the Company will develop one or more IRP Plans and compare those to the baseline facility alternative, using a DCF+ test, to determine the optimum alternative.

4. 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 Board), then the Company 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 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 treatment56 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.57*

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.*

iii. 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.58*

iv. 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), if possible.*

v. AMI Acknowledgement: *An indication of the OEB's support for the role of AMI as an important enabler of successful IRP and IRPAs.*

Energy Probe Submission

Despite a massive amount of evidence, interrogatories and undertakings, there remains a lack of clarity related to Items 2 and 3

2 the EGI IRPA Binary screening criteria and assessment processes and the IRPA evaluation, and

3 assessment processes (first and second stages),

and how these will fit into the Company's Gas Supply, Asset Management Plans, System Planning and Leave to Construct Applications.

Unfortunately, there remains sufficient missing details to provide the requested approvals. This relates to the fact that the Company is still developing its IRP processes and this work has been interrupted by the Hearing.

Energy Probe submits that the Board should provide EGI an approval of the Guiding Principles and its preliminary views/direction on a Gas IRP Framework, then direct EGI to prepare a Draft IRP Manual for review by the Board and Stakeholders. This should be provided by the end of 2021 for prospective approval in Q1 2022. At this time, the other approvals sought by EGI can wait, except that the IRP Deferral account should be approved to allow EGI to record IRP development costs.

Respectfully Submitted on Behalf of Energy Probe Research Foundation

Roger M.R. Higgin PhD, MBA, P.Eng.. SPA Inc. Consultants to Energy Probe

Appendix: Energy Probe Position on Issues

Issues List	Energy Probe Position
1. What is Integrated Resource Planning (IRP) and what should the comprehensive goals of IRP be?	IRP is a multi-faceted planning process, that includes the identification, evaluation and implementation of realistic natural gas supply-side and demand-side options to meet an identified future need or constraint that provides the optimum balance of cost and risk for Ontario Gas customers.
2. What is the appropriate process and approach for incorporating IRP into Enbridge Gas' system planning process, including scope, timing, stakeholder consultation, approval process and evaluation?	IRP is to be considered as an alternative to a facilities solution. The assessment and evaluation process is to be developed and will interface with stakeholders, The Company's asset decisions, in relation to IRPAs, will be documented and reviewed in the Asset Management Plan. Detailed Economic Evaluation of Projects will use a repurposed DCF Plus "test" to be developed with a Technical Working Group.
3. What, if any, OEB approvals are required under the IRP Framework, including for IRP Plans?	The OEB should approve the EGI proposed Guiding Principles, and provide commentary on a Gas IRP Framework but should require EGI to develop a Draft IRP manual for Board Review by the end of 2021.
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?	Gas IRP will require major Internal changes to EGI's Planning processes and may also require regulatory changes. Any regulatory changes should remain consistent with the Objectives for Gas in the OEB act and regulations
5. What are industry best practices for IRP, and how are they applicable to the Ontario context?	There has not been enough progress in developing Gas IRP frameworks in other jurisdictions to date. There is limited specific direction from utility regulators in other jurisdictions to draw from. Ontario should monitor developments. while developing an appropriate Framework. IRP pilot projects are important; There is limited specific direction from utility

	regulators in other jurisdictions to draw from.
6. What screening criteria and methodology should be adopted to evaluate and compare IRP Alternatives (IRPAs) with one another and with facility projects?	EGI's proposals and assessment proposals are a good starting point and need to be developed into a Draft Gas IRP manual
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?	In principle the like-for-like approach to facilities and IRPs is reasonable. However the Scope of Gas IRPAs needs to be considered further
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?	The Gas Utility should be responsible for both facilities and IRPAs to serve customers
9. What incentives are appropriate to ensure effective IRP outcomes?	The Rate Base rate of return on Assets is the only necessary incentive
10. What is the appropriate approach for monitoring and reporting on the progress of IRP Plans, including consideration of metrics and a scorecard?	This needs to be developed, once the Framework as set out in the Gas IRP manual and is approved.