Review of Enbridge Gas Inc. 2023 Integrated Resource Planning (IRP) Annual Report and Update on IRP Working Group Activities

From: Integrated Resource Planning Technical Working Group

July 2, 2024

Contents

1. Introduction and Overview of IRP Working Group

The Ontario Energy Board (OEB) established a first-generation Integrated Resource Planning (IRP) Framework for Enbridge Gas through its July 22, 2021 Decision and Order (IRP Decision). The IRP Decision directed the OEB to establish an IRP Technical Working Group (Working Group) and requires a Working Group report to be filed in the same proceeding in which Enbridge Gas's annual IRP report is filed. The Working Group was formed and announced in a letter issued by the OEB on December 6, 2021, and has been active since then.

This Working Group report provides:

- The Working Group's review of Enbridge Gas's Annual IRP Report and comments on Enbridge Gas's implementation of the IRP Framework in 2023 (as described in Enbridge Gas's 2023 Annual IRP Report), including individual member comments or concerns. (**Chapter 2**)
- A summary of activities undertaken by the Working Group over the previous year, from the time of the previous Working Group report (May 30, 2023) up until the issuance of this year's report on July 2, 2024. (**Chapter 3**)
- The Working Group's views on priorities for implementation of the IRP Framework in 2024, and the Working Group's expected role. (**Chapter 4**)

The Working Group report was prepared by OEB staff with input from all current Working Group members and approved by them as an accurate summary of the Working Group's activities.[1] This report clearly indicates where opinions expressed in the report do not reflect the views of all members.

1.1. Overview and Membership of IRP Working Group

The Working Group was established to provide input on IRP issues that will be of value to both Enbridge Gas in implementing IRP and to the OEB in its oversight of the IRP Framework. Members of the Working Group were determined through a call for nomination process where the OEB selected non-utility members, representatives from the OEB and Enbridge Gas, and

[1] The IRP Technical Working Group includes observers from the Independent Electricity System Operator and EPCOR Natural Gas LP. As noted in the Working Group's Terms of Reference, any materials authored by the IRP Working Group (including this report) should not be considered to represent the views of Working Group observers, or their organizations.

observers from the Independent Electricity System Operator (IESO) and EPCOR Natural Gas LP.

There were several Working Group member changes over the past year. Non-utility member Amber Crawford resigned from the Working Group after leaving her position at the Association of Municipalities of Ontario (AMO) in June 2023. Spencer Sandor from AMO temporarily replaced Amber Crawford on the Working Group. However, AMO will be stepping back from having an employee participate as a regular member of the Working Group and will instead remain available as a resource to provide a municipal perspective to the Working Group as needed. Jennifer Murphy and Allison Moore replaced Chris Ripley as Enbridge Gas representatives in early 2024. Whitney Wong also remains an Enbridge Gas representative on the Working Group.

Table 1: Current IRP Working Group Membership

Name	Role
Michael Parkes	OEB staff representative (Working Group chair)
Stephanie Cheng	OEB staff representative
Whitney Wong	Enbridge Gas representative
Jennifer Murphy	Enbridge Gas representative
Allison Moore	Enbridge Gas representative
John Dikeos, ICF Consulting Canada Inc.	Non-utility member
Tamara Kuiken, DNV Inc.	Non-utility member
Cameron Leitch, Enwave Energy Corporation	Non-utility member
Chris Neme, Energy Futures Group	Non-utility member
Dwayne Quinn, DR Quinn & Associates Ltd.	Non-utility member
Jay Shepherd, Shepherd Rubenstein Professional Corporation	Non-utility member
Kenneth Poon, EPCOR Natural Gas LP	Observer
Steven Norrie, Independent Electricity System Operator	Observer

Meeting notes and materials for all IRP Working Group meetings are published on the OEB's website following meetings to document key discussion points and to allow stakeholders to

follow the Working Group's progress.[2] These materials can be found at:

https://engagewithus.oeb.ca/irp

[2] Meeting materials are typically posted online shortly after the meeting. Meeting notes are not typically posted until after the following meeting, to allow for members to review draft notes and identify any omissions or inaccuracies.

2. Review of Enbridge Gas's Annual IRP Report and Comments on IRP Framework Implementation

Per the IRP Decision, the Working Group is expected to review a draft of Enbridge Gas's annual IRP report. The review is coordinated by OEB staff.

Enbridge Gas is expected to provide the Working Group with a draft of its annual IRP report far enough in advance of its planned filing to the OEB to allow the Working Group adequate time to review and comment. The IRP Decision also stipulates that the Working Group report should include any comments on Enbridge Gas's annual IRP report, including material concerns that remain unresolved within the Working Group.

Consistent with the prior year, the Working Group's review took the following steps:

STEP 1:

Enbridge Gas

Provided a draft of its 2023 IRP annual report to the Working Group for review.

STEP 2:

Working Group Members

Provided suggested edits/ comments/ clarifying questions.

STEP 3:

Enbridge Gas

Revised and finalized its annual report.

- Enbridge Gas discussed member comments at the June 5 meeting.
- Enbridge Gas subsequently finalized its annual report, documenting how it addressed comments from Working Group members. Members had the opportunity to ask any follow-up questions at the June 19 meeting. Final determinations as to the contents of Enbridge Gas's IRP annual report were made by Enbridge Gas, not the Working Group.

STEP 4:

Working Group Members

Provided final individual comments on implementation of the IRP Framework including the highest priority items for 2024, for inclusion in the Working Group report.

Member comments are discussed further below in Section 2.1.

2.1. Working Group Comments on the Implementation of the IRP Framework

Working Group members (except observers) were asked the following question:

> ***Having reviewed Enbridge Gas's description of Enbridge's IRP activities in the previous year in its final 2023 IRP annual report and having also participated in the IRP Working Group, do you have any comments and/or concerns with the implementation of the IRP Framework to date? What do you think should be the highest priorities for the implementation of the IRP Framework in 2024?***

Working Group members generally expressed frustration and concerns with the pace of Enbridge Gas's IRP project implementation (particularly the pilots, but also the lack of projects to displace facility spending). Some Working Group members believe the IRP screening and evaluation process has been too strict or inflexible. Although Working Group members acknowledge that Enbridge Gas has made progress in building IRP capacity and processes; some members noted that the lack of IRP project activity and results suggests that the success of IRP may not be an important overall internal priority for Enbridge Gas as a whole.

Comments provided by individual members can be found below in **Table 2**.
Comments from Enbridge Gas Working Group members follow in **Table 3**.
Priorities for 2024 are further discussed in **Chapter 4** of this report.

Table 2: Individual Comments of IRP Working Group Members

Working Group Member	Comments (optional)
John Dikeos (non-utility member)	Based on information that Enbridge has shared in its 2023 IRP annual report and in the regular TWG meetings over the past year, they have demonstrated progress on a number of fronts related to the consideration of IRP alternatives and the broader implementation of the IRP framework. However, progress has been disappointingly slow in some areas. For instance, despite the submission of an IRP pilot application in July 2023, the approval and implementation of any IRP pilot is still in limbo. Although some of the delays have been out of Enbridge's control, the timeline for next steps is uncertain nearly a year later and, based on progress to date, it seems unlikely that Enbridge will be able to start implementing any IRP pilots in time for the 2024/2025 heating season. Given the timeline required to gather and analyze data from n any pilots once they are in the field, Enbridge is still years away from collecting and deploying valuable learnings on the implementation of enhanced EE programs and gas DR initiatives. This is a missed opportunity since the whole point of implementing IRP pilots was to collect practical experience with the implementation of IRPAs on an expedited basis to allow Enbridge staff to more accurately and effectively estimate costs and impacts on a broader scale. Most importantly, this will help reduce the risks associated with the implementation of IRP projects. The highest priorities for the implementation of an IRP framework in 2024 should be the implementation of IRP pilots in advance of the pending heating season and the continued development of a DCF+ test and supplemental handbook so that IRP projects can be considered on a fair and consistent basis. Enbridge is encouraged to seek out opportunities to fast-track the regulatory approval process for IRP pilots. Enbridge should also continue monitoring relevant progress in other jurisdictions across North America.
Tamara Kuiken (non-utility member)	Over the last two years, Enbridge has shown a lack of agility in implementing IRPAs that I find surprising. To be fair, there have been unanticipated and adjacent issues that derailed portions of the process, but it's disappointing that we don't have a concrete schedule for implementing an IRPA, not even an enhanced targeted energy efficiency (ETEE) program which is simply an extension of existing services. While I cannot speculate on the cause of the delay, it seems clear that IRPA is not a high priority within the organization.

	I feel it is crucial that an ETEE pilot be in the field during the 2024-2025 heating season to provide the learnings necessary for reliable IRPAs to be implemented in the future. It's vital to prove the concept of ETEE as a long-term IRPA solution, or prove its ineffectiveness so new alternatives can be developed.
Cameron Leitch (non-utility member)	To echo comments by other TWG members, I believe that progress has been slow given the amount of effort and time that has passed since the OEB Decision. Further, I believe that the proportion of IRPA that advance passed binary screening and technical evaluation should be at least meaningful; the fact that 28 out of almost 4,300 projects met the technical evaluation criteria (per Enbridge's draft IRP Annual Report) suggests that the process is not working. A cursory review of the updated Appendix B from the AMP (https://www.rds.oeb.ca/CMWebDrawer/Record/820703/File/document) yielded the following: • The highest value projects have been screened (and most passed) to the technical evaluation stage. Focusing on high value projects first when there are so many in the AMP is sensible. That said, approximately 2/3 of the more than 3,300 projects listed failed binary screening based on the "dollar threshold" criterion. Of these, 48 had a forecast spend of greater than $2M (totaling more than $300M combined), 241 had a forecast spend of greater than $1M ($560M combined), and 497 had a forecast spend greater than $500k (totaling $750M). Aside from the fact that Enbridge's screening process identified a $2M threshold and almost 50 projects were above this amount, there appears to be a considerable opportunity in projects that have been screened out purely on project cost. • Enbridge's screening process eliminates projects where the need must be met within 3 years. There are approximately 120 projects that meet this criterion, totaling approximately $275M. Of these, 24 do not have any value assigned. There appears to be an opportunity to at least tier the limit on timing based on spend (i.e., assign a lower time limit when spend is lower), but the main concern is all the future projects that may get screened out while the process is being refined. For example, there are nearly 500 projects in the AMP within service dates in 2026 and 2027 totaling nearly $1.5B. It is encouraging that of these, 131 projects totaling nearly $1.4B have passed binary screening, but only 15 have passed technical evaluation (totaling approximately $11M). When the AMP is filed in

	subsequent years, there is risk that many of these projects will be screened out due to timing. • There isn't any justification provided for projects that have failed binary screening, beyond the category that the justification falls into. This equates to approximately $1.4B work of project scope. The rationale for projects that fail binary screening is opaque. For example, investment code 48290 is a $15.5M project that failed for "dollar threshold", but there isn't any further justification that I can find. Provision of "investment summary reports" like those provided for projects which past binary screening in the 2022 rebasing application would be helpful. I would like to see considerable progress in the advancement of IRP processes and in the selection of IRPA, otherwise we will continue to miss opportunities. The DCF+ Guide will help describe how Enbridge intends to assess projects which make it past binary screening and technical evaluation, but given the quantity of screened-out projects, some insight into the initial stages of assessment would be valuable in order for the TWG to provide feedback and suggestions. During the TWG meetings, both early in the establishment of the group and more recently during discussions of "Phase 2" (system pruning), there have been solutions proposed that involve Enbridge providing more than delivery of gas to the customer, such as heat pumps and geoexchange. These discussions have revolved around the implementation of non-pipe solutions, even if "electrified" solutions, during the IRP pilots to gain valuable knowledge and experience with IRP. Although I am interested in the potential learnings, electrification-based IRP isn't within the mandate of this group, and including these sorts of efforts within the purview of a rate-regulated utility is a slippery slope. It would be inconsistent for Enbridge to incentivize efforts like attic insulation instead of performing the work itself but self-perform the installation of heat pumps or other systems that would reduce peak demand instead of incentivizing. Rate-basing these types of projects would create a non-competitive environment. In closing, in 2024 and beyond, I would like to see a focus on full and transparent assessment of projects for IRP, completion of all guides and processes (such as the DCF+ guide), and (hopefully) the identification of a meaningful number of candidate projects through to execution of IRP.

Chris Neme (non-utility member)	I share the concerns of many other Working Group members regarding lack of progress on IRPAs. While it does seem that Enbridge has made progress in adding capacity and institutionalizing assessments of IRPAs, the fact that we do not have IRPA projects in the field today – roughly three years after the Board's Decision and two and a half years after the launch of the IRP Working Group – is very disappointing. It is particularly problematic that the promised pilot IRPA projects have not been launched and probably won't be before the 2024-2025 heating season (meaning another year of important peak period data collection will be lost). The whole point of pilots is to learn by doing. Moreover, particularly in the context of more geographically targeted efficiency IRPAs, where the other benefits (energy cost reductions for customers, greenhouse gas emission reductions, etc.) would probably outweigh the costs even without any IRPA learnings, the pilots should have been considered "no regrets" initiatives. Instead, it feels as if the pilots have been analyzed, revised, refined, reassessed, and revised and reviewed again and again. Put simply, it feels as if Enbridge has let "the perfect be the enemy of the good". Also, the fact that, other than Kingston, no non-pilot IRPA projects have been proposed by Enbridge suggests that there is a problem with the screening process. As Cameron alluded to above, it may be that the $2 million threshold for even considering a project is too high. A related point is that the Board's decision to exclude electrification as an IRPA option needs to be revisited. I say that for several reasons. First, electrification offers the potential for much larger peak load reductions than other IRPA options, so allowing it to be part of a package of options should expand the range of potential projects. Second, other jurisdictions, such as New York and California, are proceeding with electrification as prominent parts of non-pipe solutions. Third, we know that electrification of significant load is going to be required as part of the "energy transition", so including it in IRPA's provides significant additional benefits. Finally, I have been frustrated by the lack of progress in refining the DCF+ cost-effectiveness test. Progress was made initially through some good Work Group discussions, but several key issues never got resolved. Enbridge has suggested it will file its revised DCF+ approach in its next IRPA filing, but we have no idea when that will be. Moreover, in my view, it is much better to work these arcane and challenging issues out ahead of time, without the pressure of a regulatory proceeding. Instead, we are still in limbo on a number of key issues.

	Given all the above, my priorities for IRP Framework progress in 2024 are: (1) get the pilots launched ASAP, ideally before the start of winter; (2) have more intensive and concentrated discussions of outstanding DCF+ issues so that we can reach agreement, if possible, and clearly document where and why disagreement is not possible; (3) revisit key framework decisions – including both the exclusion of electrification measures and the $2 million threshold – to develop group recommendations, if possible, on what changes make sense and could lead to more robust implementation of cost-effective IRPA's; and (4) begin discussion of design and launch of a system pruning pilot, consistent with the Board's recent order in the rebasing case. Note that the scope of the priorities in front of us may necessitate some smaller "subcommittees" of the Work Group to meet more often to develop drafts for the larger group to consider. Meeting as a large group once or twice a month may simply not be enough.
Dwayne Quinn (non-utility member)	Being the last member to enter my comments, I have had the benefit of reviewing the comments of my fellow non-utility members of the Working Group. Not surprisingly, the themes of concern and disappointment with the lack of progress in developing and implementing IRP are a constant theme. I support these consensus opinions and, without reiterating, say Enbridge Gas' lack of collaboration has contributed to these concerns and lack of results. Upon review of EGI comments, I would like to add that Exhibit A of the lack of collaboration is the **Municipal Information & Data Request Summary for Gas Infrastructure System Planning.** This three-page document outlines the information that EGI is seeking from municipalities to support the company's assessment of the future demand for gas in the community. Version 1 of the document dated October 1, 2023 was provided to the TWG after its existence was noticed by TWG members in reading EGI's annual report. EGI neither sought input from the TWG nor even spoke to their initiatives with municipalities including this document. I was prompted to add this in reviewing the "progress" EGI noted in their comments on the technical evaluation process in their work with "**key internal stakeholders"** when little of the content of these process changes has been shared with the TWG for our opportunity for input. One area that has not been touched on much in the comments by other members is supply-side IRPA. This aspect of IRP was highlighted in trying to meet the needs of Parry Sound. From the outset, I attempted to work with the larger group and more directly with

	select Enbridge Gas staff to develop supply-side and bridging solutions that would meet the needs of the community while providing valuable learning opportunities as a pilot. In spite of my willingness to assist, information was provided by Enbridge Gas only after the information had gone through internal processes which slowed progress and inhibited collaboration. With recent changes in the Enbridge Gas demand forecasting, the once urgent needs of the Parry Sound community have disappeared in such a way that even the piloting of CNG, which would have import into other bridging solutions, has been dropped. While I am encouraged that Enbridge has evolved its demand forecasting (which needs to be understood better), it is disconcerting that there was not another project waiting in the wings to be able to apply supply-side solutions including CNG for the opportunity to learn by doing not by studying. Without another suitable system identified by Enbridge Gas for implementation of supply-side solutions, the group is unable to achieve a significant section of its mandate, likely resulting in missed opportunities and risks of future stranded assets. One important aspect did come from our work on Parry Sound. There is an Enbridge Gas bias to meeting customer demand by adding pipeline capacity as opposed to looking at flow and pressure control from pressure-reducing stations. In Parry Sound, a marginally small investment in improving station equipment can be much more economic than the comparable capacity available from a pipeline. I believe that station work should be considered a component of supply-side IRPA's as it has been identified in other jurisdictions. While Enbridge Gas has expressed its preference that station work be considered part of their normal operations, my experience with the Parry Sound project informs my ardent belief that this valuable solution could be missed if not identified and highlighted as part of any IRP process.
Jay Shepherd (non-utility member)	In my comments on the 2022 Annual Report, I estimated that, shockingly, it was unlikely that Enbridge would implement IRP projects displacing more than 1% of the $7 billion of capital spending proposed in its five-year Asset Management Plan. The first year of that AMP (since revised) is halfway gone, and zero projects have even been identified that would displace any facilities spending. Currently, the best estimate for reductions in capital spending due to IRP in the period 2024-2028 is zero.

	This is but one example of the unreasonable delays that have plagued IRP since Enbridge was ordered to implement it three years ago. The most glaring example is the OEB's direction that the first IRP Pilots be deployed by the end of 2022, as Enbridge itself had proposed. It now appears clear that the pilot or pilots, if any, will be deployed in 2025, at the earliest, and will not displace any facilities spending. The term "ragging the puck" refers to a strategy in which a team makes it appear they are playing hockey, but they are not. They are only really using up time to achieve their real purpose: delay. An objective observer might legitimately see the Enbridge approach to IRP as ragging the puck. That may in fact be unfair. It is equally possible that Enbridge is simply struggling to figure out how to evolve their asset management process to incorporate effective IRP. This evolution is complicated by at least the following: 1. Asset Management at Enbridge is only minimally supervised by external forces, such as the OEB. It is treated as an internal, highly iterative process where continually changing priorities and budget realities are subject to immediate responses that require no regulatory processes. IRP, at least at this stage, is under the microscope at all times. Further, those who manage assets have tried and true responses on which they rely during this iterative process, which don't include IRP. 2. The 2021 Decision establishes a set of guidelines that Enbridge has treated as basically immutable and hard-wired into the process. This creates a multi-step screening and evaluation process for IRPAs that prevents the integration of IRP into the asset management process. 3. At the same time as the OEB is requiring Enbridge to implement IRP, Enbridge is in parallel lobbying government to give it greater freedom to expand its distribution infrastructure. This creates the constant hope that, whenever the OEB orders that Enbridge slow down the pace of rate base growth, the government will step in and allow the utility to speed it up. 4. The Energy Transition is a change of massive proportions for Enbridge, affecting all forecasting. Since forecasting peak demand for a number of years out, sometimes at a granular level, is central to effective IRP, the uncertainties and declining growth assumptions arising out of the Energy Transition make it more difficult to implement IRPAs with confidence that facilities spending will be reduced. For example, each proposed facilities project discussed by the working

	group has subsequently been delayed and moved out of the ten-year AMP due to revised forecasts. 5. There are no North American utilities that are well advanced in implementation of gas IRP, and the models from electricity IRP are only partially helpful. Since much of utility planning is about implementing "best practices", Enbridge is challenged where there are not yet any obvious best practices from other jurisdictions that have been shown to work. All of this brings the focus to a key issue in IRP planning right now. Enbridge is still seeing as "progress" steps that are entirely about talking and thinking and considering options, and does not appear to see a distinction between those steps, and real actions producing real outcomes. We have had a long period of talking, but nothing has actually happened. Further, there is no current plan for any actual IRPAs to happen. This would not be acceptable in any other area of the Enbridge business, nor is it a good management approach in any business, utility or otherwise. At some point, you have to shift the focus from talking to doing. The top priority in 2024 – and this may in June 2024 be wishful thinking, of course – should be to actually implement one or more IRPAs and, in the process, delay or replace facilities spending. This will necessarily mean having imperfect information on which to base the planning (nothing new in facilities cases), but proceeding with some IRPAs anyway. This will not happen, certainly, unless the OEB steps in and orders Enbridge to move in this direction. If no sense of urgency is created – which really only the regulator can do – then Enbridge will continue to struggle with the challenges described above (or, more cynically, continue to rag the puck and delay the implementation of IRP).
Mike Parkes/ Stephanie Cheng (OEB staff representatives)	Enbridge Gas has made significant progress towards integrating IRP into its business operations, as documented in Appendix A of Enbridge Gas's annual IRP report. However, this has not yet translated into IRP projects except for the small Kingston project. The filing of Enbridge Gas's IRP pilot application in July 2023 was a major milestone, as these pilots are expected to provide on-the-ground learnings regarding future IRP design, performance and potential for scalability. The subsequent delays in moving the IRP pilot projects through the regulatory approval process have been disappointing, although this been due at least in part to changing circumstances outside of

	Enbridge Gas's control (e.g., loss of matching federal grant funding). OEB staff believes that Enbridge Gas has engaged the Working Group appropriately during proceeding abeyances by seeking and incorporating feedback regarding the redesign of the pilots. OEB staff generally agrees with the 2024 priorities identified by Enbridge Gas within its IRP Annual Report (section 10). OEB staff believe that advancing the IRP pilot projects through the regulatory approval process and, should the OEB grant approval, proceeding rapidly to implementation should be Enbridge Gas's highest priority. OEB staff offers the following suggestions on two additional identified priorities: • **Discounted Cash Flow-Plus (DCF+) Test:** Enbridge Gas indicates it will file a submission on the DCF+ test as part of its first non-pilot IRP Plan application. However, Enbridge Gas has postponed that application indefinitely as a result of updates to Enbridge Gas's System Reinforcement Plan (section 6 of Enbridge Gas' IRP Annual Report). OEB staff recommends that Enbridge Gas prioritize completing the DCF+ test and guide in 2024, given that this was an identified priority in the IRP decision, and is intended to be used in both IRP Plan applications and Leave to Construct applications (in circumstances where Enbridge Gas determines that a facility project is preferable to an IRP Plan, taking into account the results of the DCF+ analysis). There may be opportunities to initiate the OEB's formal review of Enbridge Gas's DCF+ test and guide in advance of a non-pilot IRP Plan application, such as during one of the aforementioned Leave to Construct applications. As such, it makes sense to finalize this component so that Enbridge Gas is in position to file at the first available opportunity. • **Continued IRP Evaluations:** During the Panhandle Leave to Construct proceeding (EB-2022-0157), OEB staff noted the importance of ensuring adequate lead time for a detailed consideration of IRP alternatives, given the longer time needed for demand-side alternatives to deliver their full demand reduction potential. With less projects suitable for IRP remaining in Enbridge Gas's 10-year Asset Management Plan (AMP) as a result of forecasting changes, Enbridge Gas should be able to devote more effort to proactive consideration of IRP alternatives for the higher-cost projects that do remain in the AMP. This should include the remaining projects identified in Appendix C as well as major transmission projects (growth and

	non-growth) and major non-growth distribution projects that remain in the AMP, which are not shown in Appendix C. For non-growth projects, Enbridge Gas should consider both asset life extension alternatives and IRP alternatives.

Table 3: Comments of Enbridge Gas IRP Working Group Members

Working Group Member	Comments (optional)
Jennifer Murphy/ Allison Moore/ Whitney Wong (Enbridge Gas representatives)	2023 represented a year of significant progress in the implementation of the IRP Framework and Enbridge Gas has valued the engagement with the TWG members based on their technical expertise. Enbridge Gas made strides in institutionalizing the assessment of non-pipeline alternatives and added resources to focus on IRP in 2023. TWG members have expressed concerns regarding the process and focus for IRP within Enbridge Gas, the pace of IRP Pilot implementation, non-Pilot IRP Plan implementation, and finalization of the DCF+ test and supplemental guide. Enbridge Gas outlined its 2023 IRP activities within the Company's 2023 IRP Annual Report, and provides comments below to address the key concerns noted by TWG members above: <u>IRP Evaluation Process</u> Implementing IRP into a utility's established asset management planning process is complex and time intensive. As noted by a TWG member in their comments, there are no North American utilities that are well advanced in the implementation of natural gas IRP, and the models from electricity IRP are only partially helpful. 2023 represented a significant year for advancing the implementation of IRP evaluation in this complex process. Enbridge Gas completed screening for all projects in the 2023 – 2032 Asset Management Plan, which was a total of 4,281 investments. For the screening stages in the IRP evaluation process, Enbridge Gas conducts project scope verification in relation to the screening criteria at the associated stage of the process.

	• The initial screening stage was completed for all 4,281 investments. • The binary screening stage was completed for all investments that screened to this stage, which represented 3,332 investments. • The technical screening stage was completed for all investments that screened to this stage, which represented 1,036 investments. • A technical evaluation was completed for 141 investments in 2023 that screened to this stage. The technical evaluation stage can be a rigorous and time intensive process to conduct network modelling of customer demands and demand reductions required to meet system needs. Of the 141 investments, 63 passed technical evaluation. Investments are reviewed on an annual basis to ensure scope and timing changes are reflected in the IRP Evaluation. Enbridge Gas made meaningful progress on the integration of IRP into the Asset Investment Planning Management (AIPM) process since the filing of the first Appendix B update on October 31, 2022, as part of EB-2022-0200, Exhibit 2, Tab 6, Schedule 2. Specifically, in 2023, Enbridge Gas continued to pursue IRP integration into the AIPM process through updates to the IRP evaluation process and Copperleaf (asset investment planning tool) allowing for IRP Binary Screening as well as investment review for IRP applicability earlier in the AIPM process and documentation of IRP evaluation results. Full implementation of this change will be completed in 2024. Enbridge Gas identified learnings in 2023 to streamline and improve the existing technical screening process, as outlined in Appendix G of its 2023 IRP Annual Report. This technical screening guide was created to guide and document the technical screening stage which has been introduced. This built upon the IRP screening and evaluation process in the OEB IRP Framework. In the development of the technical evaluation stage of the process, collaboration with key internal stakeholders

	resulted in the creation of technical evaluation forms. These forms are used to assess the technical feasibility of IRPAs to eliminate, reduce or defer a project need. The results of the technical evaluation are documented through the technical evaluation form and are communicated to key internal stakeholders, ensuring that the most up-to-date information is used across the organization. This ensures that the most optimal alternative is implemented. Additionally, Enbridge Gas seeks to maintain this continuous improvement approach to integrate learnings and update the process to reflect the latest IRP Framework requirements and changes to the energy transition landscape while consulting with the TWG for feedback and awareness. Subsequently, evolution of the IRP evaluation process will be reflected in the AIPM Process. Enbridge Gas will continue to engage the TWG regarding process enhancements and documentation to ensure the process is clear to all parties and can be optimally informed by their technical expertise. <u>IRP Pilot Projects</u> Development of the pilots was a key focus for Enbridge Gas as well as for the TWG in 2023. An overview of the work Enbridge Gas undertook in 2023 on the IRP Pilots has been highlighted in Section 4 of the Company's 2023 Annual Report. Throughout 2023, Enbridge Gas continued to engage the TWG regarding the pilot projects to seek advice on various aspects of the application including the scope of the ETEE/DR programming, incentive levels, new measures/offerings, data collection and evaluation, budget thresholds, cost benefit analysis, and cost recovery methodologies. Enbridge Gas made every effort to incorporate feedback received from the TWG into the final design of the pilot. The TWG was generally supportive of most elements and the Pilot Projects Application was filed July 19, 2023.

	The Pilot application has been delayed due to various factors since the initial filing in July 2023, including the announcement from NRCan to halt intake of new entrants into the Greener Home Grant in November 2023 and more recently, updates to the system reinforcement plan (SRP) as well as energy transition and demand forecast adjustment updates in early 2024. These changes resulted in the need to revisit and revise the pilot scope and application. Enbridge Gas engaged the TWG in March 2024 prior to the SRP and energy transition adjustments updates to proactively consult on the optimal path forward. In consultation with the TWG, Enbridge Gas confirmed a revised approach for the Pilot Project in April 2024 to ensure the Pilot Project application and evidence update could be filed as quickly as possible by June 28, 2024. Enbridge Gas also ensured that the design of the updated Pilot Project is structured to enhance annual participation and maintain 2027 as the last year of the pilot to ensure the timeline for key learnings and final reporting is maintained as per the original July 2023 application, despite delays in the launch of the Pilot. Enbridge Gas has taken proactive steps, where possible, to initiate certain activities that are anticipated to require longer lead times, in efforts to reduce any delays in the implementation of the pilots upon receiving a decision from the OEB. These activities include installation of residential hourly measurement, collection of hourly data where available (through both automated and manual reads), initial analysis of data quality from hourly reads, exploration of options for installing hourly measurement devices on both residential and larger commercial/industrial customers at scale, surveying potential land options for CNG injection, and preparation of documents for anticipated third-party contracting/supply-chain processes. Enbridge Gas also facilitated project-specific engagement sessions within each of the initially proposed pilot areas to solicit feedback from the communities and to test potential engagement channels for future initiatives, and has ensured interested stakeholders and Municipal staff have remained informed on the status and adjustments to the Pilot Projects in 2023 and 2024.

	Enbridge Gas shares the TWG's desire to be in a position to launch the Southern Lake Huron Pilot Project as quickly as possible. Enbridge Gas remains hopeful that an OEB decision can be issued in 2024 to allow for market launch as soon as possible to begin to learn from the pilot. <u>Non-Pilot IRP Plan</u> Enbridge Gas did not file a non-Pilot IRP Plan given the impacts of the SRP update as summarized in Section 3 of the Company's 2023 IRP Annual Report. As outlined in Section 6 of that Report, Enbridge Gas was moving forward with an IRP Plan for the Owen Sound reinforcement project including having initiated stakeholder engagement sessions with representatives of the municipalities, electric LDCs, Hydro One and the IESO, and having implemented an In-Franchise Binding Reverse Open season in the area of influence for the project. However, the timing of the project was shifted from 2025 to 2031 as a result of the impacts of the SRP update and therefore the development of the IRP Plan for this project has been put on hold. Enbridge Gas is continually evolving its system models to reflect best available information and forecasted system constraints, as is prudent to ensure the Company's demand forecast and 10-year capital plan continually reflect current information. This process has shifted the timing of some investments in the 10-year capital plan which has in-turn impacted the IRP evaluation of the projects. Enbridge Gas has implemented the screening and evaluation process from the IRP Framework appropriately and is working through reviewing near-term investments to determine viable IRP Plans for implementation. <u>DCF+ Test</u> Throughout 2023, Enbridge Gas made progress towards enhancing the DCF+ test in consultation with the TWG as outlined in Section 9 of Enbridge Gas's 2023 IRP Annual Report. After significant consultation on the DCF+ test, including a presentation of the DCF+ on the potential Parry Sound pilot on January 10, 2023, the TWG released the "Use of the Discounted Cash Flow-Plus Test

	in IRP: Report of the IRP Technical Working Group," on May 30, 2023 documenting the TWG's key considerations to enhance the DCF+ Test, including the creation of a supplemental guide. Enbridge Gas agreed and shared the first draft of the resulting DCF+ Supplemental Guide with the TWG on September 26, 2023 for comment. Enbridge Gas continued to consult with the TWG at the October 3, November 28, and December 12, 2023 TWG meetings. TWG meetings on key issues identified in the DCF+ Supplemental Guide included but was not limited to input assumptions, categories of costs/benefits, and summation of phases. Enbridge Gas further provided a working Excel version of the DCF+ test using an example to demonstrate the mechanics of the DCF+ test on November 24, 2023, in advance of the November 28, 2023 TWG meeting. Enbridge Gas walked the TWG through the DCF+ test example and requested additional written feedback by the TWG for consideration. Enbridge Gas continues to refine the DCF+ Test and Supplemental Guide and will be sharing an updated version of the Supplemental Guide for review and comment by the TWG in 2024 prior to filing the DCF+ test with the OEB as part of the Company's first non-pilot IRP Plan. Enbridge Gas agrees that finalization of the DCF+ test is a priority and will make efforts to finalize the DCF+ test and Supplemental Guide efficiently in consultation with the TWG.

3. Description of Key Working Group Activities

Per the IRP decision and consistent with the Working Group's Terms of Reference, the highest priorities for the Working Group were identified as:

1. Consideration of IRP pilot projects to better understand how IRP can be implemented to avoid, delay, or reduce facility projects.
2. Enhancements or additional guidance in using the DCF+ economic evaluation methodology to assess and compare the costs and benefits of using either facility solutions or IRP alternatives to meet system needs.

The Working Group's initial role in contributing to these items was largely completed by mid-2023 with the completion of the Working Group report on the Discounted Cash-Flow Plus test (May 30, 2023) and Enbridge Gas's filing of its IRP Pilot Projects application (July 19, 2023).

Additional 2023 priorities were identified in Enbridge Gas and the Working Group's 2022 IRP Annual Report. After further discussion with the Working Group, Enbridge Gas proposed a high-level work schedule that outlined meeting topics and timelines that were generally accepted by members. This included IRP policy considerations for Enbridge Gas's first non-pilot IRP plan application, as well as other topics of interest previously identified by working group members, such as the IRP assessment process (including the results of Enbridge Gas's AMP update) and updates on IRP progress in other jurisdictions.

All of these topics have been subsequently discussed with the Working Group. There were some changes to the schedule and items discussed by the Working Group as the year progressed due to several changes impacting the IRP pilot application and implications arising from OEB's decision on Enbridge Gas's rebasing application in December 2023.

A high-level summary of each topic is provided in the subsections below. Readers can refer to the meeting folders on the OEB's Engage with Us (EwU) IRP webpage[3] for meeting materials and meeting notes summarizing key discussion points and outcomes. Refer to Table 4 below for a summary of meeting dates and key topics discussed at each meeting.

[3] https://engagewithus.oeb.ca/irp

Table 4: Summary of Meeting Dates and Key Topics Discussed

Meeting Date	Key Topics Discussed
June 20, 2023	• Pilot Evidence • 2023 Priorities • IESO Non-Wires Guide
October 3, 2023	• Regulatory Update and Fall Workplan • IRP Plan Development (Key Topics and Timeline) • DCF+ Guide
October 17, 2023	• Attribution of Results (DSM vs. IRP) • Shareholder Incentives • Approach to Incrementality to Base Rates and Use of IRP Deferral Accounts
October 31, 2023	• IRP Deferral Accounts (continued discussion) • Risk
November 28, 2023	• IRP Pilots Discussion (impact of NRCan's announcement) • IRP Plan – Owen Sound • DCF+ Model
December 12, 2023	• DCF+ (continued discussion) • IRP Shareholder Incentives – Electricity Sector Learnings • DSM/ IRP Attribution • AMP Update and IRP Assessment Process • IRP Pilot Update
February 21, 2024	• Technical Evaluation Process
March 20, 2024	• 10-Year Plan Update and Next Steps for IRP Pilots
April 10, 2024	• Updates to the System Reinforcement Plan • IRP Pilots Discussion • IRP-Related Proposals for Phase 2 of Rebasing
April 24, 2024	• IRP Pilot Proposals • Follow-up to Takeaways from the Last Meeting • IRP Pilots – Draft Letter to OEB
May 10, 2024	• Economic Screening (Low Cost/ Low Value Projects) • 2023 IRP Annual Report • Energy Transition Adjustment Factors
June 5, 2024	• Written Feedback on Draft 1 of Enbridge's IRP Annual Report • Working Group Report and 2024 Priorities • IRP Pilots – Application Update
June 19, 2024	• IRP Reports (Discussion on Enbridge's Final IRP Annual Report and Comments on the Working Group's Annual Report) • Energy Transition Adjustment Factors (continued)

3.1. IRP Pilot Evidence

Per the IRP Framework, Enbridge Gas was expected to develop and implement two IRP pilot projects by the end of 2022. The pilots were expected to be an effective approach for Enbridge Gas to understand and evaluate how IRP can be implemented to avoid, delay, or reduce facility projects. The IRP Pilot Projects application was filed by Enbridge Gas to the OEB on July 19, 2023, under EB-2022-0335.

Leading up to the filing of the Pilot application, Enbridge Gas engaged the Working Group for multiple discussions on the development of the two pilot projects in Parry Sound and the areas around Southern Lake Huron. Enbridge Gas sought advice on the scope of the enhanced targeted energy efficiency (ETEE) program and demand response (DR) program, consideration of appropriate incentive levels for ETEE, as well as the potential inclusion of limited enhanced electric measures like cold climate air source heat pumps and ground source heat pumps. The Working Group also considered other advanced technologies like hybrid heating, thermal energy storage, and gas heat pumps. The Working Group also discussed the importance of adequate data collection, contemplated the appropriate levels of encoder receive transmitters (ERTs) and hourly metering coverage required, and inquired about Enbridge Gas's planned data analysis and evaluation for optimized learnings. The Working Group also provided input on the flexibility of pilot project costs and budgets, use of a simplified DCF+ cost-benefit test (Stage 1 only), and cost recovery and allocation methodologies.

Enbridge Gas considered the Working Group's input in the final design of its pilot proposals and provided the Working Group with an opportunity to review and provide any feedback on its draft evidence. It was ultimately Enbridge Gas's decision on what Working Group feedback to incorporate into its Pilot application. Working Group members were generally supportive of most elements of the proposed pilot projects as described in the filed application, although a full consensus on all aspects was not reached. In particular, several members had concerns with the proposal to fund emerging gas technologies like gas heat pumps. Enbridge Gas's application noted they could make known through the regulatory approval process where a member of the Working Group had an outstanding concern with one or more elements of the proposed pilots.

As planning on the pilots progressed, Enbridge Gas engaged in various stakeholder activities including the initiation of stakeholder engagements with representatives from municipalities, local electric distribution companies, and the IESO. Enbridge Gas reached out to the pilot

communities through in-person open house sessions to provide information on the proposed pilot projects and to get feedback from the public. Enbridge Gas also presented the proposed pilot projects at council meetings and obtained letters of support from the Town of Parry Sound, the City of Sarnia, and the Town of Plympton-Wyoming. The Working Group was informed of the details and results of Enbridge Gas's engagement efforts after the stakeholder events had occurred. The Working Group provided feedback on how Enbridge Gas could continue its stakeholder efforts for greater effectiveness.

Changes to pilot application:

Enbridge Gas notified the Working Group and the OEB in a letter filed on November 10, 2023, of Natural Resources Canada's (NRCan) decision to halt new intake into the Greener Homes Grant program in February 2024. This announcement impacted the design and budget of the IRP pilot projects, which sought to leverage the Greener Homes Grant funding. The OEB issued Procedural Order (P.O.) #3 on November 17, 2023, where the Pilot application was put in abeyance pending Enbridge Gas's filing of updated evidence. Enbridge Gas sought the Working Group's input on potential solutions/revisions to the Pilots given the impact of the loss of NRCan funding on the pilot budgets for ETEE programming. The Working Group discussed potential alternative approaches to include an electric heat pump component in the pilot in the absence of NRCan incentives, such as through on-bill recovery or additional customer incentives. Enbridge Gas ultimately decided on the latter and filed updates to its pre-filed evidence and interrogatory responses on December 22, 2023.

On January 12, 2024, Enbridge Gas filed a letter to the OEB requesting to keep the proceeding in abeyance to assess the impacts the OEB's 2024 Rebasing Phase 1 decision (EB-2022-0200) may have on the pilot application. The OEB accepted the request in a letter dated March 12, 2024, emphasizing the importance of continuing to advance IRP by avoiding further delays to the proceeding and supporting Enbridge Gas's plan to engage the Working Group in subsequent communications. Accordingly, Enbridge Gas walked the Working Group through its System Reinforcement Plan (SRP) updates and changes to its energy transition assumptions which altered Enbridge Gas's customer forecast, resulting in changes to Enbridge Gas's 10-year capital plan. The Southern Lake Huron system need was shifted outside the 10-year period, and facility needs in Parry Sound were reduced and delayed a few years, though a system need remained in the 10-year plan.

Given these changes, the Working Group discussed potential revisions to the scope of the pilot projects, considering factors like the appropriateness of the pilot locations given the change in system needs, how to optimize value for money and maximize pilot learnings when determining what customers to target and which programs to deploy, and the sufficiency of metering for data collection, analysis, and learnings. Various scope changes were explored and discussed. The Working Group was generally supportive of a revised scope for both IRP Pilot Projects that preserved demand-side measures in the pilot, focused all demand-side programs (including electrification and advanced technologies) on the Southern Lake Huron pilot (specifically the City of Sarnia), and included potential implementation of localized compressed natural gas (CNG) injection in the Parry Sound pilot.

Based on this discussion, Enbridge Gas determined that it is appropriate to move forward with the Southern Lake Huron Pilot Project focused solely on demand-side alternatives, and with the Parry Sound Pilot Project focused solely on the supply-side alternative. Enbridge Gas filed an update letter with the OEB on April 30, 2024, and is expected to file its updated application to the OEB by June 28, 2024.

On June 7, 2024, Enbridge Gas filed a letter to the OEB with a further application status update. As a result of its May 2024 energy transition and demand forecast adjustment updates, the underlying system need and associated baseline facility projects for Parry Sound have been pushed out of Enbridge Gas's 10-year capital forecast. Enbridge Gas determined it is no longer reasonable to proceed with the Parry Sound pilot without a justifiable need for localized CNG injection within the Parry Sound area. Enbridge Gas informed the Working Group of its plans to withdraw the Parry Sound pilot from the proceeding and filed its updated evidence and interrogatory responses to the OEB on June 28, 2024.

3.2. DCF+ Test and Guide

The Working Group made significant progress on providing Enbridge Gas with suggestions to arrive at an enhanced DCF+ test. This was documented in a Report of the IRP Working Group on the Discounted Cash Flow-Plus Test (DCF+ report) made public in May 2023. The DCF+ Report captures differing perspectives along with any items where consensus was reached.

The next step is for Enbridge Gas to use the Working Group's DCF+ report to develop an enhanced DCF+ test and supplemental handbook (DCF+ Guide) and file with the OEB for approval. The DCF+ report included key information the Working Group identified as valuable for Enbridge Gas to include in its DCF+ Guide, including a clear description of the purpose of

each phase of the test, category of costs and benefits applicable to each phase, a definition of each cost/benefit and corresponding guidance and/or formula on how to calculate each cost/benefit, input assumptions including the source of numeric values, and high-level examples showing how the DCF+ test would apply to primary IRPAs like geotargeted energy efficiency and demand response.

Accordingly, Enbridge Gas developed a first draft of its DCF+ Guide which was provided to the Working Group for review in fall 2023. To illustrate the concepts discussed and to facilitate and complement the review of its draft DCF+ Guide, Enbridge Gas also provided the Working Group with an example of how the DCF+ test would be used.

To leverage and continue the Working Group's discussion in areas of the DCF+ report where consensus was not reached or where further elaboration in the DCF+ guide is likely needed, the Working Group first considered the approach taken by Enbridge Gas to address these issues in draft 1 of its DCF+ Guide. The Working Group then identified and discussed outstanding concerns upon the Working Group's initial review of the draft DCF+ Guide. Working Group members also had the opportunity to provide written feedback for Enbridge Gas's consideration.

Enbridge Gas continues to work through the comments received in the DCF+ Guide. Through continued discussions with the Working Group, Enbridge Gas hopes to evolve the spreadsheet model and DCF+ Guide in parallel.

At this time, further discussions on the DCF+ test have not been scheduled. Enbridge Gas was expected to file its enhanced DCF+ test and supplemental guide for approval with the OEB as part of its first non-pilot IRP Plan application as per the IRP framework. This was initially scheduled to be filed in 2024 (Owen Sound Reinforcement Project), but with the SRP updates following the rebasing decision, the timing of the Owen Sound project has shifted out of Enbridge Gas's 10-year capital plan. Accordingly, the development of the IRP Plan for Owen Sound has been put on hold. Enbridge Gas will continue to review and monitor system needs changes, but at this time, there are no definitive timelines of when the first non-pilot IRP plan will be filed and the enhanced DCF+ test finalized and adjudicated.

3.3. Policy Proposals for Non-Pilot IRP Plan

In anticipation of Enbridge Gas's filing of its first non-pilot IRP plan, Enbridge Gas and the Working Group prioritized discussion on several policy proposals. Through several meetings, the Working Group provided its initial perspective on four key topics: DSM/IRP attribution, the

role of shareholder incentives and performance metrics, incrementality and use of the IRP deferral accounts, and consideration of how risk associated with traditional facility projects as well as IRP alternatives could be considered. The Working Group's initial input was documented by OEB staff in a draft working paper. Following further discussion on these topics, the Working Group intends to eventually convert the working paper into a public report, like the DCF+ report.

Policy proposal discussions with the Working Group are anticipated to continue before Enbridge Gas files its first non-pilot IRP plan. The Working Group's perspectives are expected to be considered by Enbridge Gas as it contemplates and develops its IRP policy proposals.

The following paragraphs summarize some key points that came out of the initial Working Group discussions.

DSM/IRP attribution: The working group considered three options for attribution of program costs and savings between DSM and IRP when there is an overlap or similarity between energy efficiency programs in the IRP Plan and Enbridge Gas's broad-based DSM programs. The first option is to continue the IRP pilot approach of fully funding ETEE within a pilot area from the IRP Plan budget and attributing all ETEE results within the pilot area to IRP. The second option is policy-driven attribution (potentially incorporating an adjustment factor) where some funding for the ETEE programs comes from both the DSM and IRP budgets, with all peak demand reductions attributed to IRP and all annual energy savings to DSM. The third option is split attribution where results between IRP and DSM are split proportionally based on the amount of funding from each budget or on a different basis that attempts to quantify the relative importance of IRP versus DSM in influencing participant uptake. The Working Group identified opportunities, preferences, and challenges for each option.

Shareholder incentives and performance metrics: The Working Group's discussion on shareholder incentives was based on several fundamental questions. First, whether incentives for Enbridge Gas should be available for IRP and if so, how they should be structured. Second, where incentives should be tied to performance metrics or objectives, and whether incentives should be specific to each IRP plan, on a system-wide basis, or both. The Working Group discussed the opportunities, risks, and challenges of the three incentive options presented in the OEB's Framework for Energy Innovation Report[4]: performance-target or scorecard-based incentives, shared savings mechanism, and margin on distributed energy resources payments. Considering the similarities and differences between the gas and electricity sectors, the Working

[4] https://www.oeb.ca/sites/default/files/FEI-Report-20230130.pdf

Group assessed how applicable and appropriate the Framework for Energy Innovation's shareholder incentives are for IRP. Likewise, the Working Group considered the OEB/ Guidehouse webinar[5] on possible incentive mechanisms for DERs for the electricity sector and their applicability to IRP.

IRP Deferral Accounts: The Working Group's discussion on incrementality and use of the two OEB-approved IRP deferral accounts (IRP Operating Costs Deferral Account and IRP Capital Costs Deferral Account) considered what costs should be included in each of the deferral accounts and how the incrementality of IRP costs relative to base rates should be addressed. For capital costs, the Working Group discussed potential IRP activities that would be eligible for capitalization and how to account for the revenue requirement related to avoided facility costs as an offset (credit to ratepayers) in the capital deferral account. For operating and maintenance costs, the Working Group discussed the eligibility of activities including costs for external studies that may provide general learnings on IRP, as well as project-specific costs that were undertaken as part of the IRP assessment of alternatives but did not end up being implemented (e.g. environmental impact analysis for facility projects). Several follow-up action items and discussion topics were identified including Enbridge Gas's preparation of worked-out examples of treatment of costs in various hypothetical scenarios and timings including how offsets work. This will be revisited in future Working Group meetings.

Risk: Lastly, the Working Group discussed various types of risk/ uncertainty that are expected to be considered in an IRP Plan and Enbridge Gas's proposals on how these risks would be mitigated and managed under the IRP framework. Discussions were primarily focused on demand forecast risk/ stranded asset risk and its linkage and consideration in the DCF+ test, potential health and safety risk associated with navigating through newer IRPA technologies, environmental benefits of an IRPA and/or the environmental risks of the facility project, and risk of underperformance of an IRPA. The Working Group considered where and how the risk should be addressed quantitatively (where possible) or qualitatively. Several clarification points and potential research takeaways were identified for Enbridge Gas to be revisited with the Working Group at a future meeting.

[5] https://www.oeb.ca/regulatory-rules-and-documents/rules-codes-and-requirements/filing-guidelines-third-party-ders

3.4. IRP Assessment Process and Demand Forecasting

In May 2023, Enbridge Gas began discussions with the Working Group on how it assesses the identified system needs in its AMP for their suitability for IRP. Enbridge Gas provided the Working Group with an overview of its current process by sharing details on the process flow and walking members through two specific project examples – one that passed, one that failed – to demonstrate the sequence of questioning and responses to the binary screening and technical evaluation process. The Working Group provided feedback on Enbridge Gas's IRP technical review template and the overall process for potential improvements.

Enbridge Gas continued to refine its IRP assessment process throughout the year, focusing on integrating it into its asset investment planning management process (AIPM). As part of these efforts, Enbridge Gas proposed to the Working Group to introduce an initial IRP applicability screening that combines initial technical screening with a minimum economic threshold of $2M before conducting a detailed technical and economic evaluation of applicable investments. By identifying "low cost, low value" investments early in the process, Enbridge Gas believes it will reduce non-value-added work and prioritize resources to evaluate and implement viable IRP plans. The Working Group identified some risks and concerns in further limiting opportunities for potential IRP projects and discussed the appropriateness of a $2M threshold. Some Working Group members emphasized the importance of reducing or eliminating the cost threshold over time so Enbridge Gas can develop the capability of evaluating smaller projects on a routine basis and identifying set IRP solutions for different categories of system needs. The Working Group also considered how the threshold aligns with other jurisdictions and existing policies. Discussions with the Working Group on Enbridge Gas's continued refinement and integration of its IRP processes are anticipated to continue in 2024.

Closely related to Enbridge Gas's IRP assessment process is the demand forecast methodology that Enbridge Gas uses in its AMP to identify system needs. Enbridge Gas is revising its demand forecast based on updated information in its System Reinforcement Plan and revisiting the energy transition assumptions it originally developed as part of its rebasing application. Enbridge Gas engaged the Working Group in early 2024 to provide an update and seek initial feedback on its energy transition assumptions and adjustments in its forecasting processes. Enbridge Gas is reviewing policy signals, identifying customer trends/ behaviors, and obtaining stakeholder input to layer in its energy transition adjustments to existing and projected customer forecasts. Enbridge Gas is also beginning to take a regional view of the energy transition, which requires coordination with local distribution companies and the city to

ensure projections are aligned. The Working Group provided suggestions of other sources like major user trends, analyzing egress data, and incorporating sensitivity analysis to identify a potential range of energy transition adjustments. Additional discussions on energy transition and forecasting are anticipated to continue throughout 2024.

4. IRP Priorities and Working Group Activities in 2024

In June 2024, the Working Group held a preliminary discussion of subsequent priorities for the implementation of the IRP Framework in 2024, and the role the Working Group should have. Several members also made suggestions for 2024 priorities in their individual comments (**Chapter 2**).

The Working Group considered the activities Enbridge Gas identified as its IRP priorities for 2024 in its 2023 annual IRP report:

- Stakeholder/ Municipal Outreach
- Planning/ Coordination with the Electric Sector
- Continued IRP Evaluation
- DCF+ Test
- Pilot Projects
- Policy Proposals (for Non-Pilot IRP Plans)
- System Pruning

Of Enbridge Gas's identified 2024 priorities, one or more members of the Working Group identified the following items as high priorities. First and foremost, multiple members would like to expedite IRP pilot implementation to have the pilots implemented for the upcoming heating season, so another year of data on IRP learnings is not lost. Several members expressed a preference to restart the DCF+ discussions to finalize the DCF+ test and accompanying handbook as soon as possible. Members are interested in discussing various aspects of the IRP project evaluation process including dollar thresholds, timing considerations, and the rationale for screening out projects. Several Working Group members expressed interest in making progress in discussing and developing a system pruning/electrification pilot, although one member noted potential concerns about conducting these activities within the purview of a rate-regulated utility. Lastly, individual members noted: tracking and learnings from other

jurisdictions' IRP best practices; focusing on opportunities for non-pilot IRP project implementation to delay/avoid further facility spending, and further consideration of supply-side alternatives, including distribution system modifications, and how these fit into the IRP evaluation process.

OEB staff will work with Enbridge Gas to develop an updated schedule/work plan for the Working Group based on 2024 priorities.

Appendix F: Pilot Feedback

Southern Lake Huron Pilot Project Feedback

Received on	Source	Feedback	Enbridge Gas response
May 16, 2023	Online feedback form	Do not touch my energy to help large cities.	Thank you for your feedback, please refer to our pilot pages for more information on how the pilot will affect your community.
May 17, 2023	Open house	Do we have programs targeting agriculture customers (i.e. chicken coop)?	Enbridge has a range of energy efficiency programs that are available to agriculture customers.
May 17, 2023	Open house	Asked about the Enbridge project (Dawn to Corunna) in Sarnia region and how this project ties in with that.	These projects are unrelated.
May 17, 2023	Open house	Asked clarifying questions regarding IRP, the scope of the pilot and then specifics of the ETEE/DR program for the pilots (i.e. what kind of measures, timelines etc.)	Check out our website for more information on the IRP pilots.
May 17, 2023	Open house	Does IRP mean that Enbridge won't be investing in new infrastructure in our communities?	Enbridge will continue to invest in our communities and IRP efforts will help ensure we are looking at the most cost-effective alternatives.
May 17, 2023	Open house	Rates have been increasing for NG, will IRP efforts impact my rates?	IRP efforts explore the most cost-effective alternatives that can help address system capacity constraints, where some alternatives may include energy efficiency programs that can lead to reduction in consumption and potentially lower energy bills.
May 17, 2023	Open house	When will you be detailing the offers associated with IRP?	Pending OEB approval, we expect to have more program information in late 2023/early 2024.

Parry Sound Pilot Project Feedback

Received on	Source	Feedback	Enbridge Gas response
May 5, 2023	Online feedback form	**Many of the Municipalities and First Nations in the region are members** of a formal regional climate action and energy management partnership known as ICECAP (Integrated Community Energy & Climate Action Plans). Many of these communities (including the Town of Parry Sound) are in the process of developing community and corporate climate/energy plans which are in alignment with this pilot project. The Georgian Bay Biosphere (our organization) facilitates this partnership.	We look forward to working with your organization and the communities it serves.
May 5, 2023	Online feedback form	Bring natural gas down Rankin Lake Road past the Cn bridge. There are approximately 50 customers on propane now that would gladly switch.	Thank you for your feedback, we will pass this information along to our Community Expansion team
May 9, 2023	Online feedback form	"Low income jobs in area, mostly service-type jobs at $15-$20 an hour means that many homes have adult children and sometimes grandchildren living in sometimes small accommodations. Please consider that usage impacts these families tremendously. We use more water, more sewage, and more garbage bags than a family of two, but it is overall better for the environment to be cohabitated. We cannot afford. We have the super, super rich here and the super poor. Please consider the poor when impacting our country values of freedom and use in our town. It's ours. Not the cottagers. We are the workers, not them. We need less cost and flat-fees mean freedom as well as the ability to cohabitate. We moved here to get away from constricting city values. This is a remote community, not a city. It is a town of 7000 people with an hour to the next city. Understand that housing costs are driving workers away. additional costs to usage. That's why we are living together, to save costs."	Enbridge offers distinct Energy efficiency programming for our low-income customers to help support customers in reducing energy costs and managing their natural gas bills.
May 10, 2023	Open house	Georgian Bay Biosphere – represent 8 municipalities within the region. Discussion centered around current suite of DSM programs as well as renewable initiatives and IRP.	We look forward to working with your organization and the communities it serves.
May 10, 2023	Open house	Are there capacity issues for the Enbridge system in our region?	Enbridge has identified an upcoming system constraint in Parry Sound. Enbridge is exploring various system reinforcement options as well as alternatives to support the growth and forecasted customer demands in the area and will continue to ensure that system needs are safely and reliably met.
May 10, 2023	Open house	How does Enbridge track potential developments and infrastructure need in a community? How would they find out if there are capacity issues? And who would they reach out to at Enbridge?	Enbridge Gas uses an economic and evaluation forecast to anticipate future customer additions. Multiple factors are incorporated into the demand forecast, including; input from Enbridge Gas regional offices and districts, **municipal zone plans, developer plans**, energy transition assumptions (i.e., low carbon trends), municipal GHG (greenhouse gas) targets and plans and declining average Use per customer assumptions. This information may be adjusted to reflect locally known developments and timing through our regional offices, and/or feedback received through our IRP stakeholder activities and included as part of EGI's Asset Management Plan (AMP).

May 10, 2023	Open house	Do the plans prepared by the municipality get shared with Enbridge and/if so, how are they incorporated?	Available municipal and developer plans, in combination with other factors such as operational input, economic factors, and energy transition assumptions, form the key inputs in forecasting the future load on the system. Models are run with the above inputs and reinforcement projects (i.e. growth projects) are identified where system constraints appear. Annual simulation and verification of the models are run to ensure they are reliable in estimating general demand on the system. The results of the future forecast are documented, and reinforcement projects are included in the EGI Asset Management Plan.
May 10, 2023	Open house	Does IRP mean that Enbridge won't be investing in new infrastructure in our communities?	Enbridge will continue to invest in our communities and IRP efforts will help ensure we are looking at the most cost-effective alternatives.
May 10, 2023	Open house	Rates have been increasing for NG, will IRP efforts impact my rates?	IRP efforts are designed to solve capacity issues in the most cost-effective way, including measures that can help customers with their energy efficiency
May 10, 2023	Open house	Will Enbridge still be connecting homes that want to switch from oil or propane?	Enbridge will continue to connect new customers and communities.
May 10, 2023	Open house	When will you be detailing the offers associated with IRP?	Pending OEB approval, we expect to have more program information in late 2023/early 2024.
May 10, 2023	Open house	What is Enbridge offering to the customer for participation in IRP programs?	Enbridge plans to offer enhanced incentives on a portion of our existing Energy efficiency offers.