

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board (STAFF)

Interrogatory

Issue 17

Reference:

Exhibit E, Tab 4, Schedule 6, pp. 7-8

Question(s):

When discussing its stakeholder efforts related to the proposed Whole Building P4P offering, Enbridge Gas noted that “some stakeholders maintained that the initially proposed performance target per building was too high.” Enbridge Gas noted that it incorporated this feedback into a more achievable but challenging building performance target in its proposed plan.

- a) Please indicate what Enbridge Gas’s initial target was for the Whole Building P4P offering.
- b) Please discuss the reasons provided by stakeholders as to why the initial target would be too difficult to achieve.

Response

- a) Enbridge Gas’s initial target for participants in the Whole Building P4P offering was the achievement of a 30% reduction in natural gas consumption over baseline.
- b) Stakeholders felt a 30% reduction target may be too aggressive and could deter participation. Justification was based on industry understanding that the initial 10% of savings would be more straightforward to reach, however savings become increasingly more difficult and expensive to achieve beyond the first 10%.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board (STAFF)

Interrogatory

Issue 17

Reference:

Exhibit E, Tab 4, Schedule 6, p.7

Question(s):

Enbridge Gas notes that feedback from a school board related to capital improvement plans and operational budget approvals has led to some consideration of the ideal design of the Pay for Performance offering.

- a) Please discuss if Enbridge Gas, along with its preferred vendor/delivery agent, has considered partnering directly with school boards, as opposed an ad hoc approach with individual schools, in an effort to reduce barriers that may exist when working with individual schools, so that consistent direction and messaging related to capital upgrades and efficiency improvements can be provided to all individual schools within various districts.

Response

- a) The approach for engagement in the Whole Building P4P offering would be at a school board level as opposed to individual schools. Once an interested school board is identified, benchmarking and energy intensity analysis, along with input from the school board can be used to determine the target schools within that board. This would help reduce the potential barriers of engaging at a school level versus board level as noted in the question. Key personnel and decision makers involved in the operation of the building and capital projects are often at the board level and would allow for more direct engagement and follow through.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Anwaatin Inc. (Anwaatin)

Interrogatory

Issue 17

Reference:

Updated Application, Exhibit A, Tab 2, Schedule 1, para 13

Question(s):

Preamble: EGI states that persons affected by the Application are the customers resident or located in the municipalities, police villages, and **Indigenous communities** served by EGI, together with those to whom EGI sells gas, or on whose behalf, EGI distributes, transmits or stores gas. [emphasis added]

- a) Please file any and all analysis EGI has performed in connection with how the Application will, or is anticipated to, affect Indigenous rights-holding communities:
- (i) that EGI serves;
 - (ii) to which EGI sells gas (e.g., Six Nations Natural Gas); and
 - (iii) on whose behalf EGI distributes, transmits, or stores gas.

If EGI has not undertaken any such analysis, please explain why no such analysis has been undertaken, in light of the statement in paragraph 13.

- b) Does EGI believe that it has a duty to consult and potentially accommodate Indigenous rights-holding communities with respect to the Application?
- c) Please provide a detailed outline of EGI's Indigenous consultation process with respect to the Application. Please include a description of all steps that EGI has taken or will take in order to engage, consult, and accommodate Indigenous rights-holding communities affected by the Application.

Response:

- a) The Application involves a Decision for the approval of the 2023+ Proposed Framework and 2023-2027 DSM Plan, inclusive of programs, targets, and budgets, for customers in EGI rate zones. In Enbridge Gas's view, Indigenous communities will be affected by the Application in a similar manner to other organizations, individuals, customers Enbridge Gas serves to promote conservation and increased energy efficiency.

- b) Enbridge Gas submits that it is committed to engaging with Indigenous peoples, in accordance with its Indigenous Peoples Policy and the duty to consult and to accommodate, where applicable and where the procedural aspects have been delegated to Enbridge Gas. Enbridge Gas does not believe the duty to consult is triggered by the DSM Application as the OEB decision in respect of the Application does not contemplate conduct that may adversely impact asserted or established Aboriginal¹ or treaty rights.²
- c) As discussed above, Enbridge Gas is of the view that the DSM Application does not trigger the duty to consult. Regardless of whether the duty to consult has been triggered by this proceeding or whether Aboriginal consultation is required, Enbridge Gas believes it is appropriate to continue consultation through the OEB-led DSM regulatory consultation process. Enbridge Gas notes that Anwaatin is an active participant in this proceeding before the OEB. Enbridge Gas will address any questions raised by members of Indigenous groups regarding the DSM programming as they arise.

Looking ahead, Enbridge Gas looks forward to meeting with all interested Intervenor groups, including Anwaatin, at the annual General DSM Stakeholder meeting. Throughout the Plan term, Enbridge Gas will remain committed to pursuing sustainable relationships with Indigenous groups in proximity to where Enbridge conducts its business and operations. Where DSM programming is contemplated, Enbridge Gas will engage with applicable Indigenous groups regarding the proposed programming and potential approaches specific to the community in question.

¹ In this proceeding, Enbridge Gas is using the terms Indigenous and Aboriginal interchangeably. A reference to “Indigenous” has the same meaning as a reference to “Aboriginal” in s. 35 of the *Constitution Act, 1982*, which defines the aboriginal peoples of Canada as the First Nations, Inuit and Métis.

² For example, see, *Haida v. British Columbia (Minister of Forests)*, 2004 SCC 73; *Taku River Tlingit First Nation v. British Columbia*, 2004 SCC 74; and *Mikisew Cree First Nation v. Canada*, 2005 SCC 69 and EB-2017-0319, OEB Decision and Order (October 18, 2018), p. 25, wherein the OEB found the Decision at issue in that proceeding to not have any direct material impact on Aboriginal or treaty rights.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Anwaatin Inc. (Anwaatin)

Interrogatory

Issue 17

Reference:

Exhibit E, Tab 4, Schedule 6

Question(s):

Preamble: EGI notes that it “has been limited in the time available to engage stakeholders for a comprehensive review of proposed program updates and other topics for the new DSM Plan.”

EGI further notes that it held individual meetings with representatives from low income customer associations “to provide an update on proposed changes contemplated for the next multi-year DSM Plan, and seek feedback ahead of the submission to refine program design and program delivery strategies.”

EGI indicates that stakeholder engagements and feedback compiled throughout the 2015-2020 DSM Plan and 2021 DSM Plan application is too numerous to summarize in the Application.

- a) Please describe all steps EGI took to engage and consult with Indigenous communities through its stakeholder engagement on the DSM Plan.
- b) Please place EGI’s Indigenous consultation policy with respect to DSM and any and all related documents, presentations or guidelines on the record in this proceeding.
- c) Please indicate whether any of the stakeholders EGI consulted in March 2021 were Indigenous stakeholders (individuals, First Nations, Indigenous-owned businesses, Indigenous associations, Indigenous-rights organizations, etc.). If EGI did not consult any Indigenous stakeholders to seek feedback on proposed changes for the multi-year DSM Plan, please explain why not?
- d) Please provide and summarize all Indigenous-related feedback compiled throughout the 2015-2020 DSM Plan and the 2021 DSM Plan.

Response:

- a) There are a number of ongoing Indigenous engagement activities that Enbridge Gas undertook as part of the development of the Plan, which remain at present, to help identify DSM opportunities for Indigenous customers both in the single family and multi-family offerings.

To date, Enbridge Gas has engaged with the majority of Indigenous on-reserve communities through their Band Council's to promote opportunities through the Home Winterproofing Program (HWP). As detailed in Exhibit I.10b.EGI.STAFF.41 many on-reserve homes have sufficient levels of insulation, or have participated in an alternate weatherization program, or are not interested in participating in HWP. As a result, the Company consulted with, and continues to work with, HWP Indigenous Delivery Agents to understand where remaining DSM opportunities exist and how the offering can continue to best serve its Indigenous on-reserve customers.

Enbridge Gas is also currently working with Urban Indigenous Organizations, Indigenous Housing Entities and other collectives that serve off-reserve populations to help develop a DSM program strategy to support off-reserve Indigenous customers through HWP.

In addition, Enbridge Gas continues to monitor the IESO's progress to finalize its On-Reserve Commercial and Institutional Program. Enbridge Gas will actively pursue opportunities to collaborate with the IESO, where appropriate, to bring DSM opportunities for buildings owned and operated by the community's Band Council as part of the DSM Commercial Program.

Enbridge Gas is committed to building relationships with its Indigenous customers and continuing to work with Indigenous groups and stakeholders, consistent with our Indigenous Peoples Policy, to improve its DSM programming for the benefit of the Indigenous customers Enbridge Gas serves.

- b) Please see attached a copy of Enbridge Inc.'s Indigenous Peoples Policy.
- c) The Low Income Program Stakeholder consultation held in March 2021 were limited to low income customer associations due to the condensed time between the OEB's December Letter finalizing the Post-2020 DSM Framework Stakeholder Consultation process and the invitation to the Company to submit a new DSM Framework and Plan by May 2021. The purpose of the meetings was to provide key updates on proposed changes contemplated in the new DSM Plan, as well as seek feedback ahead of the submission date with Intervenor who the Company anticipated would be participating in the OEB's DSM Plan hearing. Unfortunately, Enbridge Gas was unaware that Anwaatin would be participating in the DSM Plan hearing, as they did not submit their Application for Intervenor Status for this proceeding until June 10, 2021.

- d) Over the last few years, Enbridge Gas has been continuously engaging in ongoing discussions with rights holders over the course of the current DSM plan. Rather than holding more formal sessions, the discussions with the various communities have been ongoing with communities from a DSM and Enbridge Gas perspective. Feedback gathered specifically regarding DSM has often been regarding the outreach methods for HWP, in order to properly engage potential participants on-reserve. Examples where this has been successfully implemented include the use of the Project Lead within each community, training required for that Project Lead to properly promote DSM, the benefits of having an in-person community launch to help support positive outreach and understanding of the program, and other methods to help gain traction and sign-up for HWP. This type of feedback has been ongoing over the years, as Enbridge Gas reaches out to each new community to deliver HWP, as communities reach out to Enbridge Gas with questions and inquiries, as well as through regular interaction with Enbridge Gas's Indigenous Affairs Team.

As the 2015 Aboriginal DSM program was developed within the Legacy Union Gas plan, there was a more formal endeavor to assist Legacy Union Gas launch and grow the offer to on-reserve communities. This included work with Legacy Union Gas' Indigenous Affairs Community Advisors, engagement with various Indigenous on-reserve communities within the Legacy Union franchise area, and discussions with the Chiefs of Ontario.

Please see response to part a for details on engagement in support of 2021 information gathering.

Enbridge Inc. Indigenous Peoples Policy

Enbridge Indigenous Peoples Policy

Enbridge recognizes the diversity of Indigenous Peoples who live where we work and operate. We understand that the history of Indigenous Peoples in both Canada and the United States has had destructive impacts on the social and economic wellbeing of Indigenous Peoples. Enbridge recognizes the importance of reconciliation between Indigenous communities and broader society. Positive relationships with Indigenous Peoples, based on mutual respect and focused on achieving common goals, will create constructive outcomes for Indigenous communities and for Enbridge.

Enbridge commits to pursuing sustainable relationships with Indigenous Nations and groups in proximity to where Enbridge conducts business. To achieve this, Enbridge will govern itself by the following principles:

- We recognize the importance of the United Nations Declaration on the Rights of Indigenous Peoples in the context of existing Canadian law and the legal and constitutional obligations governments in both Canada and the US have to protect those rights.
- We recognize the importance of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) within the context of existing Canadian and U.S. law and the commitments that governments in both countries have made to protecting the rights of Indigenous Peoples.

- We engage in forthright and sincere consultation with Indigenous Peoples about Enbridge's projects and operations through processes that seek to achieve early and meaningful engagement so their input can help define our projects that may occur on lands traditionally used by Indigenous Peoples.
- We commit to working with Indigenous Peoples to achieve benefits for them resulting from Enbridge's projects and operations, including opportunities in training and education, employment, procurement, business development, and community development.
- We foster understanding of the history and culture of Indigenous Peoples among Enbridge's employees and contractors, in order to create better relationships between Enbridge and Indigenous communities.

This commitment is a shared responsibility involving Enbridge and its affiliates, employees and contractors, and we will conduct business in a manner that reflects the above principles. Enbridge will provide ongoing leadership and resources to ensure the effective implementation of the above principles, including the development of implementation strategies and specific action plans.

Enbridge commits to periodically reviewing this policy to ensure it remains relevant and meets changing expectations.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Canadian Manufacturers & Exporters (CME)

Interrogatory

Issue 4

Reference:

Exhibit E, Tab 1, Schedule 5, pages 4 of 44

Question(s):

At page 4, EGI stated that 9 in depth interviews were conducted with industrial customers. It stated that 9 interviews were conducted, 2 of which were large non participants and 7 of which were large participants.

(a) Did EGI conduct any “in-depth” interviews with non-large industrial customers? If so, has a similar report been prepared with respect to those interviews? If so, please provide.

(b) If EGI did not conduct in-depth interviews with non-large industrial customers, please explain why not.

Response:

a) Yes, Enbridge Gas extended the in-depth interviews with industrial customers to a total of 25 customers, including 13 large participants, 6 large non-participants, 3 small participants, and 3 small non-participants.

The in-depth interviews were broken into two parts, with the first part completed before Ontario went into lockdown as a result of rising COVID cases. Interviews resumed a few months later as businesses adjusted to the new restrictions. When filing the plan, only the first portion of the study was included in error. A complete copy of the study has now been included as Attachment 1 to this response.

b) Please refer to the response above.

2020 INDUSTRIAL NEXT GEN DSM CUSTOMER ENGAGEMENT RESEARCH: IN-DEPTH INTERVIEWS

Filed: 2021-11-15
EB-2021-0002
Exhibit I.17.EGI.CME.7
Attachment 1
Page 1 of 63

JULY 2020 Qualitative Research Report

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METHODOLOGY & OBJECTIVES

METHODOLOGY: IN-DEPTH INTERVIEWS



- **ROUND 1:** 9 In-Depth Interviews were conducted with Industrial customers of Enbridge Gas Inc. These took place between March 17 and March 27, 2020. All were conducted by telephone.
- Fieldwork was suspended between March 28, 2020 and May 31, 2020 because of the COVID-19 pandemic and lockdown.
- **ROUND 2:** An additional 16 In-Depth Interviews were conducted between June 1, 2020 date and June 17, 2020. All were conducted by telephone.
- Customers were identified by Enbridge and categorized as Large or Small Participants or Non-Participants. They were either legacy Union Gas or legacy Enbridge Gas as outlined in the table below.

	Legacy Union	Legacy Enbridge	TOTAL
Large Participants	8	5	13
Large Non-Participants	3	3	6
Small Participants	2	1	3
Small Non-Participants	2	1	3
TOTAL	15	10	25

20%



EXECUTIVE SUMMARY



NOTE ON ANALYSIS

- Findings have been noted by Participants and Non-Participants as it became apparent that this is the most relevant differentiator in terms of relationships and experiences with Enbridge. Any differences between Large and Small respondents have been noted; otherwise it should be assumed that findings are consistent regardless of level of natural gas consumption by a company.
- Note that findings of this qualitative research are directional and not representative.

IMPACT OF COVID-19

- For all respondents we spoke to in Round 2 of interviews, COVID-19 has impacted their companies in some shape or form. Although most were declared essential services, their major customers were not, and so this resulted in lower sales and a decrease in production – this ranged from being modest to quite significant. Most are starting to see recovery as the economy opens back up.
- In terms of operations, a few chose to voluntarily close their plants so they could take measures related to increasing the safety of their productions. Some made physical distancing and sanitation adjustments while their plants were still in production.
- The long-term impact of COVID on their businesses is currently unknown – most anticipate that there will be changes to capital spending in 2020 and possibly beyond. Any changes to natural gas conservation projects might be due to a shift in internal priorities and / or less available overall funding.



ENERGY CONSERVATION

- All study respondents use natural gas within their business operations and for space conditioning, although the proportion of consumption is much higher for their business operations in manufacturing and production processes – as such, reducing consumption and therefore costs is of great interest.
- Most respondents were not solely responsible for energy management and conservation, but were facility managers, engineers, plant or facility managers, or were tasked with operational innovation or identifying and realizing cost savings. They tended to wear at least a few different hats in their roles.
- Many companies do not have formal sustainability goals or energy management plans in place, and further, lack internal resources to assign responsibility to these tasks; the exceptions are large multinationals who have dedicated resources, plans and sustainability goals.

WORKING WITH ENBRIDGE

- Awareness of available services and supports amongst Participants was high, but there can be internal barriers to taking advantage of them. These included a lack of available internal or dedicated personnel, the need for a compelling business case with a payback period of less than 2 years; or a lack of available capital, or other capital projects which are of greater importance or interest.
- Amongst Non-Participants, some were aware of available services and supports, and appreciation for the education they are receiving from Enbridge about future possibilities. However, others were unaware of available services and lack a consistent relationship with an Enbridge representative.



- Many companies also undertake electricity conservation projects, but not all respondents were familiar with these, as there may be a separate person or team who works on these. There is much interest in these projects due to the high and volatile price of electricity, or a much proportionately higher consumption of electricity in their operations.
- For those who work with electric utilities or have familiarity with the process, the relationships are generally positive although mention was made that they can be more functional and less holistic. Electricity incentives were mentioned as being less flexible than those offered by Enbridge.

PARTICIPANTS: NATURAL GAS CONSERVATION IMPLEMENTATION

- Participation in natural gas conservation projects varied by company although most had undertaken at least one, and some had taken on several or many, often dating back many years.
- Financial incentives are often a crucial component in making a business case for a project, especially in bringing the payback period within the typical 2-year (or less) timeframe required by decision-makers to approve a project.
- Respondents characterized their working relationships with Enbridge positively – because of long-term relationships, positive past experiences working together on projects, and because of the high level of service they receive. Even those Participants who had not had one consistent contact still described their relationship with the overall company positively in that continuity had been maintained.



- The working relationship is often viewed as an ongoing partnership that has resulted in reduced consumption and real money savings.
- Respondents are appreciative of the technical advice and expertise they received at all stages of a project – in auditing the need and doing calculations of potential savings, providing recommendations on trusted vendors and contractors, and in measuring success after project implementation. Use of these services varied by respondent, with some requiring more input or advice at certain stages than others.
- The services and incentives provided by Enbridge are considered to be sufficiently or very flexible to meet their natural gas conservation project needs.
- Most felt that they had learned about natural gas conservation and thermal energy as a natural result of working on projects with Enbridge, and this was viewed positively.

NON-PARTICIPANTS: INTEREST IN WORKING WITH ENBRIDGE

- There were various factors that contributed to a lack of participation in available services and incentives: a lack of awareness, being ineligible for incentives, overlap with other vendors / consultants' services, or not finding the right fit in terms of projects were some of the reasons mentioned.
- Notably, the tenure of the respondent was also a factor in awareness of services and this was true of both Participants, and Non-Participants. Shorter tenured respondents knew less about Enbridge's services and were not aware, or hazy on the details, of past projects or relationships.



- When asked about levels of awareness and interest in various services, overall, there was mixed to low awareness of services, and high levels of interest.
- Having a dedicated consultant or advisor was considered the key stepping stone in fostering a relationship with Enbridge, and in identifying and implementing conservation projects. Knowledge development was positively perceived in principle, but most felt they might not have the time to dedicate to this. More succinct / relevant formats or having other team members involved would be of interest.
- Other items were tied to relevance:
 - Opportunity Identification was mostly view positively, although mention was made of barriers for any opportunities identified (lack of capital, lack of fit).
 - Measurement and Verification was viewed positively particularly amongst those who lack specific data on natural gas consumption / usage.
 - Engineering Analysis was viewed positively as a tool in helping to build business cases and / or provide tangible data, especially amongst those who lack time or skill set internally.
 - Energy Management Plans as a term felt vague but there was some interest in creating these.
 - Project Implementation was mixed – financial incentives are of great interest in helping build a business case for a project and shortening payback periods, which is helpful in getting approvals – but being connected to trade professionals was not always relevant as some already have relationships with trusted vendors and contractors.



FUTURE NATURAL GAS CONSERVATION PROGRAMS

- For Participants, most stated that for the future of the natural gas conservation program, they are looking for more of the same in terms of having a holistic partnership which identifies opportunities for services and supports at all phases of the project.
- For Non-Participants, most would like the type of interaction currently enjoyed by Participants: a central and consistent contact who reaches out proactively to foster an ongoing, long-term relationship; who helps identify and remind respondents about available services, opportunities and incentives; and who can provide concrete support in a number of different ways throughout the life cycle of a project.
- Some mentions were made by both Participants and Non-Participants in terms of specific items which could be future opportunities for Enbridge to pursue.

IMPACT OF COVID-19



When asked in Round 2 of the interviews about the impact of COVID-19 on their companies, most respondents stated that they were declared essential services by the province, and therefore were not required to shut down their operations, although a few chose to do so voluntarily. A few were not significantly affected by COVID-19 as sales did not decrease – in fact, one company saw a significant increase in sales/production due to increased demand for their product directly related to the pandemic and lockdown. However, many were affected by COVID-19 in terms of sales, operations, or both.

Some saw a decline in sales which meant that they did not require as many workers and/or shifts to be operating. The impact ranged from moderate to significant. This was due to shutdowns by and decreased demands from their customers, primarily in the automotive or construction industries. There was a reduction in natural gas consumption as a result of decreased operations. Most of these companies were slowly starting to recover at the time of their interview (about 3 months into the lockdown).



Our primary sources of heat for our furnaces is natural gas, so when we don't have production over the weekend, and other days we put the furnace on low fire, so there's definitely a big difference between running them at full fire and full temperature with the product being loaded through them. So yeah, we definitely see some reductions in our gas consumption due to [COVID].



[COVID] did have quite a negative impact on our business. Our particular location, which we serve, you know, a lot of our automotive customers [...] So, we were pretty slow for about a month, we were running at about maybe, when we were shut down at times, running at about a 30 capacity. But things have picked up though since, since automotive manufacturing has picked up, although we have a lot of locations in the world that are still suffering from the downturn in the economy.



Some made adjustments to their operations in order to physically distance their employees from one another and respondents were matter-of-fact in their tone about making these. Any non-plant/onsite workers who were not directly involved in operations working corporate or office jobs were changed to working from home. A few mentioned that the setup of their plant, or areas of their plants, are already naturally physically distanced, so in these cases there were no adjustments required.

A resulting change in capital planning and spending for at least the rest of the year, and likely 2021, was anticipated, although it was too early for most to know exactly what the effect would be. Some felt that items such as natural gas conservation projects might be affected in that these would likely be considered less of a priority in the short term while focusing on recovery / adjustments due to COVID, while others felt decisions would continue to be made in the same way as before, albeit with a reduced overall purse to draw from.



[...] we were designated fairly early in the process as an essential manufacturing facility. As such, we were given a number of protocols by our corporate COVID committee, and we've been able to comply with all of the orders. And as they get updated, the new protocols get rolled out to us and we haven't lost any time as a result of it.



Our capital investments have actually dropped substantially. So any big projects that we had on the go have been, we had to go through and pick which ones out of the approved ones we were going to go through with, so we had to do a lot of savings that way. So unfortunately, there will be a lot of projects out there, it's just they won't be implemented until possibly next year.

ENERGY CONSERVATION AND WORKING WITH ENBRIDGE



Almost all study respondents use natural gas in some form in their production processes and this consumption is proportionately much larger than other uses such as heating – as much as 90-95% on processes compared to as little 5-10% on space conditioning and water heating. There was variation amongst respondents about the proportions of use. Processes included various business operations and industrial equipment uses.

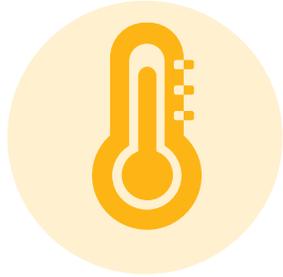
Some have considered other forms of energy to power their processes and equipment but chose natural gas for various reasons such as safety or efficiency.



[...] generally, we're probably I would say 95% production, maybe even up to 98 or 99. While we might use a lot compared to home users for miscellaneous things, because we're using, I think we're using two to three million cubes of natural gas a year just for our plants. I bet probably, what's 1% of that? 20,000? Yeah, probably 98% is an estimate of our production.



Definitely efficiency as far as the units are concerned, plus on a maintenance aspect, a lot more issues we were finding with our boilers, and the older that they got, being on oil-fired [...] just was leading to bigger issues and it was actually impacting our production. So, a lot of the focus was to get onto natural gas because it's just a cleaner burn [...] That was probably the driving factor for that.



Because of the amount of natural gas consumed, and associated costs, many companies are highly motivated to conserve natural gas in order to lower consumption, and therefore, cost. There is less motivation to reduce consumption purely for space conditioning since the proportionate use is typically much less.

The impetus to start a natural gas conservation or efficiency project might come from a number of different sources – corporate / international headquarters, senior management / executive level, or as a byproduct of researching and sourcing new equipment. In the case of Participants, many were proactively approached by an Enbridge representative to start discussions on potential projects and this was positively perceived as a welcome relationship to have. Others reached out to Enbridge themselves, and found that they received the services and support they were seeking.



We're always trying to reduce the amount of natural gas we're using, specifically because it is such a large expense of ours.



[The company owner] contacted Enbridge, our broadening contact with Enbridge [...] at that time, and yeah, it was... we were basically his first customer; he just started with Enbridge, so, and it was really good. So yeah, it's more or less in the meantime like a little friendship between us, so we call each other and, you know, just talk with each other and yeah, that worked out pretty good, and he could help us with his experience quite a bit.



Most characterize energy conservation as an endeavour that is worthwhile, but it is a goal that competes with many other of the company's priorities and interests. The primary goal in reducing consumption is to save costs; other considerations are to reduce waste, increase efficiency, comfort, and optimization of processes.

Most organizations do not have any long-term or short-term corporate sustainability targets and for these companies, their conservation goals and projects are undertaken on an ad-hoc, as needed basis. Some are early in the process of exploring energy conservation opportunities and have identified or hired a person internally to further investigate these opportunities. New capital projects or the future expansion of current projects of which energy efficiency or conservation may be a consideration are being investigated accordingly.

We do have sustainability targets. The initial one contributed to costs, but of course the best way for us to save cost on natural gas is to be more efficient. But we do track our gas consumption yearly. It is part of our ISO target to reduce consumption.

I would say that there is a strong interest in sustainability at the executive level, and certainly it's part of the discussion. But I don't think we were able to set clear objectives until we began to measure the energy performance of some of our facilities. That's kind of where our process is. I think it's more of a technical process for us. But part of the sustainability was the fact that they allowed me to delve into that. There was an investment. They invested in my time, and said, "Go find opportunities." I would say that was the primary impetus to begin with.

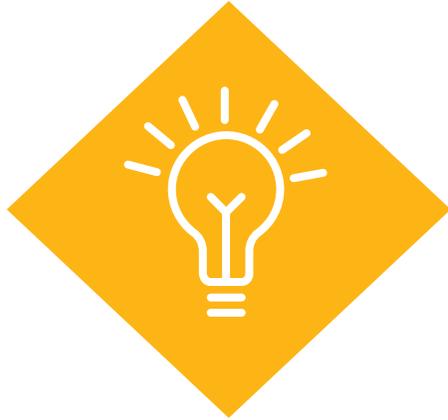


Larger multinational companies are more likely to have corporate sustainability goals and express concern not only about greenhouse gas emissions, but other environmental considerations such as water waste, steam usage, and electricity conservation. They are much more conscious of GHG emissions and aim to reduce these as much as possible, although there is some uncertainty or questions about the impact or significance of reduction.

Other companies are less aware of, or concerned with, GHG emissions, although a few have considered these in terms of fuel source or future capital planning investments. Some are conscious of emissions but less formal in terms of reduction goals. There was mention made that although GHGs might be a concern, they are unavoidable due to the nature of the operations and processes used, and that there are other considerations such as safety or process optimization that drive fuel choices.

We do have an awareness, and we do look at when we have an opportunity for savings, we look at, is this going to affect greenhouse emissions, yes or no? But it's honestly difficult for us to say, if we've reduced greenhouse emissions by a number, 100 tonnes. Do we know whether that's significant or insignificant? We really, I don't think we know. But we still have an interest and we still want to be conscientious.

We have considered other [fuel sources] in the past. Now we are sort of pigeoned in with our environmental concerns, that we can't run too many different sources. We can only run a few types of fuel oils, like a little heavy oil, such as if it's thicker than gasoline, we call it Number Two fuel oil. But we have considered kerosene, ethanol, gasoline, electricity, coal. We've considered a lot. Fuel oil, jet oil, propane, and natural gas was one of the more cost efficient. The only one that was more cost efficient was coal. But again, coal was the worst for the environment, so for us, [natural gas] was the best option.



For some, electricity conservation was considered a higher priority due to the higher cost of electricity in Ontario – even in situations where consumption of electricity is lower than natural gas because the cost of electricity is much higher. Others view the value of both types of conservation projects equally. A few companies consume proportionately much higher amounts of electricity than natural gas, and therefore place a higher priority on electricity reduction initiatives.



I think that electricity is more urgent, because it has proved to be more volatile [in terms of pricing]. And as a unit of expense, it's greater [...] The pricing structure for electricity drives us to be more attentive recently to electric costs. And so, we have conducted energy assessments, we have characterized how our business operates in terms of electricity, and we have changed our operation based on costing, on electric pricing. That's not true with natural gas.



From a cost perspective, electricity is way, way, way more. But I think we've done projects on both sides of it, to be honest. I think to some people, the electricity is easier to see the potential because of the big savings, or because the big expenditures of small savings can be more money in your pocket. But I think they both hold equal value to us.



While some respondents were jointly responsible for natural gas and electricity conservation (as well as water and steam, in a few cases) others had a separate person or team who looked after electricity conservation and so these respondents were unaware of electricity conservation activities, although they had some high-level awareness that projects were taking place.



[I'm] looking after the energy issues for the company [...] Basically all the utilities, the hydro, the gas and the water. We want to consider, to look at ways that we can save on energy and of course, when we receive all the invoices, we look at it and make sure that we're on the right track with what we are purchasing and whether we need to do anything drastic.



Initially, it was a combined team just for energy, and at some point, I can't remember the year, they decided to focus a little more, so they split one into electricity, and one into natural gas.



Most companies do not have a dedicated internal resource and/or technical expertise devoted to energy management. Instead, most have a person in another role such as innovation, engineering or plant management, where overseeing and implementing natural gas conservation has been added to their responsibilities. This person typically came into the role in a natural way – i.e. they were designated due to past successes or technical expertise, or they have been tasked with cost containment generally.

Some are more hands-off and at a corporate level, while others are on the ground at the plant level, and so their levels of involvement vary accordingly. Outside experts may also be brought in as needed.



I think it's mostly because no one else wants to do it. Everybody has their own jobs where I work and this wasn't a full job, it was a sort of a role and so it's just been since, incubated within the engineering department because it involved you know, affecting changes to improve efficiencies and so on.



We have internal [team] members like myself who plot projects. But as far as expertise, we will bring in external expertise, for instance, with the furnaces, we have an outside contractor that we use if we're doing say, engineering studies, or want to get into the mechanicals of how to do what we want to do.



I'm the maintenance manager and facilities manager. Therefore by default, I get to do all the facilitating with any kind of energy savings also.



Most, except for those working for large multinationals, did not have a formal energy management plan in place. This was inherently tied to a lack of dedicated internal resources who would have the time and bandwidth to put one together. Many simply have a mindset or culture of efficiency and mitigating waste. Others consider what they are already doing as a plan, even if it is not given a name or label.

A formal plan was considered an aspirational goal that would be ideal to have in future but is not currently feasible or considered a top priority by their companies.



We lack the support staff to really put it together, and to track it, and to do everything. It's more of just the mindset that everyone needs to have to conserve as much as possible. [...] So really, on a good day, they're only using the natural gas to light the burners [...] That's the direction they've been given, and they're only to really use natural gas when they have to.



We could definitely benefit from, I think the company would make use of someone who's focused solely on [an energy management plan]. And maybe in the future, we will have someone. But we're getting there. [Our industry] is a little slow. We're probably about 10 years behind the curve.



Many **Participants** rely on Enbridge and other utility partners to ‘fill the gaps’ in terms of knowledge, tools and resources to undertake conservation projects. This might include support and expertise in conducting assessments, putting together the figures and numbers to build a business case, in recommendations for third party contractors and experts, and in understanding industry-specific or general best practices. A few characterize these as equally or more valuable than financial incentives.



I think they have limited tools, but they recognize that there's talent that we can bring in to help us do the assessments, to help us do, like when we go to a bidding or costing process, and then when we go through the actual project itself, most of that work is done by local third party contractors. But we do rely on our utility partners to help give us some guidance and direction on what works, what doesn't work, say when we ask for a recommendation on list of contractors that other clients have had a good experience with, those are the types of things that are really important because we're in most cases somewhat blind to that process. We have very capable engineers, but they do better when they are given a head start.



It really helps if you get the savings estimates, because then you can at least put a dollar figure to a project proposal. So I found that was a really good resource to have, and just walking through the steps of what needs to happen. The payback seemed more than fair for what we were doing, and I don't really think there's anything too much more they could do to help. Again, the benefit is having that resource of the Enbridge rep, and if they're a knowledgeable person, and the lines of communication are open, it helps a lot. It helps streamline the project [...] I found his technical knowledge was really good. We obviously did most of the project planning ourselves, but having that outside resource who has experience from a number of different organizations is always a good asset to have.



Non-Participants have a mix of available tools and resources, and are not currently, or in the early stages, of using Enbridge as a resource. Some are self-reliant and take on the projects themselves, while others have internal teams or colleagues who they can turn to as needed.

Mentions were made of external consultants who companies bring in to provide similar services to those offered by Enbridge; as such they feel little need for duplication given they are satisfied with this resource.



Yeah, there's not really anybody that kind of looks at things too closely, or as an expertise at that level. I think we just try to do research, kind of either on our own or with other colleagues within the company, to try to understand and get information that way. But there definitely isn't somebody that's looking the conservation or an energy management plan, that type of stuff.



I do have, there are some engineers here that are drawing when we're looking into things, and the maintenance crew here.

Some of that would be me, and some of that would be the consultant, depending on the project specifically.



For **Participants**, there was a mix of experiences in terms of how they became aware of Enbridge’s available technical services and financial incentives.

Some had an Enbridge representative proactively reach out to tell them about available services and incentives or to ideate about potential projects. There was some questioning for these respondents as to why a company would offer free services that would lower use of its product, but these concerns were overcome once the respondent gained a better understanding of the overall goals of Enbridge in natural gas conservation, and once a relationship was developed over time.



Enbridge came to us [...] initially I was actually kind of skeptical because I didn't understand why, it was a different time too, looking back [...] years ago. I don't think there was as a big of a focus on conservation as there is now. But back then when he showed up I was trying to wrap my brain around the company that sold us the gas, why would they want us to conserve it? But I later learned that it was kind of a separate division within Enbridge that took care of this and it was their sole purpose of that group to spearhead the efficiencies within industry in Ontario. It made more sense later but it didn't make sense when they first showed up.



[...] my Enbridge representative came to me and said, “They’re doing this at this facility, and we would like to have you go there and talk to them.” There was an agreement between their Enbridge representative and ours. We had a visit to their facility, they gave us a presentation, they showed us what they were doing, how they were doing it [...] because that facility didn’t really have a team for conservation. So we shared with them our team structure, how it was created, the benefits that it’s given us over time. Because of this facilitated meeting between the two different companies, we each came away with a benefit out of it, and that was all organized by the Enbridge representatives. That visit is what led us to commission the full engineering study on the feasibility of implementing the same system here as they were using.



Some reached out to Enbridge themselves to see what if anything was available to them, or feasibility and best options, when undertaking projects such as cost reduction initiatives, or plant expansion, already being developed. Once the relationship has been established, most Participants have one point of contact they reach out to when needed, or who they hear from on a regular basis.

For **Non-Participants**, most currently do not have a consistent relationship with a representative from Enbridge, although a few were in the building stages of this. A few mentioned that the individual had changed over time and so it was difficult to establish a relationship, but most stated that there was no particular reason for this – while they are open to it, it simply has not yet happened and is not necessarily something they would seek proactively unless needed.



I believe that when we started [...] we made our first contact. At that time, it was Union Gas, and we had been dealing directly with a representative from them up to date. And now with the Enbridge-Union Gas merger, essentially I'm dealing with the same person, but it's under a different banner now.



I think our Enbridge rep happened to be in the area, and stopping by, and I was talking to him about the project that was coming down the pipeline in a couple months, and he was telling me that there was some savings and some payback that we could potentially get if we go through all these necessary project steps. So then we started working on that together.



The lead-in time and approval process itself also varied from company to company; however multi-year projects were rare and lead time was typically within a year as energy projects were evaluated alongside other capital projects on an annual basis. The lead time could be shorter for those companies not requiring a long approval process.

Lead time can be longer more in the sense that it might take a few or several years before a project is approved – the business case has been built and presented for approval, but there might be other capital projects which are considered of greater importance. As such, the energy project proposed might be put “in the queue” for future years and approved at a later date.



It's generally over a year, because we have our base here where we're identifying projects. Then we have our budgeting event, which is usually at the end of the year. And that's where we traditionally assign projects based on the budget. And then we execute the project, and the project execution is in the following year.



[Lead time] depends on the complexity of the project. The biggest projects we have done could be a year in the planning. We have smaller ones that could be completed in a month to three months.



Responsibility for building the business case fell to the respondent who participated in the interview. While some acted independently in this capacity, others had colleagues or external resources involved in helping to build the business case.

Having Enbridge partner with the respondent in quantifying savings was considered tremendously valuable by those Participants who used this service – either because they didn't have the technical knowledge or internal resource to do so themselves – and so this was crucial in helping to build the business case.



I would say it's multiple responsibility, the individual in the team member could be given a task and would be their responsibility to lay out the requirements. For larger tasks, it could be a team effort, include non-team members like maintenance, support, and again if required, outside support.



[...] that's really where the great power of this is, it's not, from my perspective anyway, it's not the fact that they give away money. that's probably what a lot of people would have a perception of as, facilitates the grants and all that kind of thing. But from where I sit it was, the biggest benefit that we got from these guys, this group was that it kind of helped identify where the opportunities were, then brought in people who knew how to measure these inefficiencies and give proper recommendations on how to fix them and what we could expect in terms of savings. It helped with that initial list that I was telling you about, we ended up paring it down and realizing which ones were the gems and which ones were the lemons. This kind of assistance that they brought to bear on this thing.



Amongst **Participants**, awareness of Enbridge’s technical services and financial incentives was high. Many had utilized Enbridge’s services on past conservation projects and found this to be an invaluable resource throughout the life of a project – this was true for both Participants, and Non-Participants.

For some, having Enbridge proactively identify opportunities, or turning to them for advice on potential projects was considered instrumental in starting the process. For companies with a lack of internal resources, having Enbridge’s expertise to fill assessment gaps if needed was of great value, while other companies were able to conduct their own assessments. For those who took advantage of available incentives these were considered important or crucial to having the assessment done.



They provided us with some funding to help with some of the engineering, going around analyzing what we were seeing, and then based on the actual reduction we were able to obtain some rebates from Enbridge around that. So, that was a great initiative.



We’ve done both facility assessment[s] with Enbridge, and we’ve asked for their guidance on projects that we’ve selected. And we’ve solicited funds and received them from Enbridge for assessment work, as well as for installation. I would be quick to say, it’s unlikely that we would have done these projects without that support.



We did some savings estimates when we started discussing this one project, but we never did any auditing. I know [our rep] recommended we could do some, but again, it would require more investment, which we weren’t going to get at that time. But he was able to help as much as he could with our investment level, basically.



Amongst **Participants**, Enbridge engineers and technical resource(s) were able to provide or bring in specific knowledge about each company's processes to the project. Receiving recommendations on contractors or trusted vendors was also a helpful service that drove the process forward and made the projects easier to assess and implement.

Having knowledge and best practices from other companies, even those from other sectors, was valuable to many. Understanding and knowledge of new technologies, innovations related to conservation is also of interest.

 *[Enbridge] come up to the plants, they help us with the ideas. We have no tools. Like I said, we don't even have the time. What they're giving us is modeling softwares, and they're showing us some modeling, telling us how much energy we can save. We also do projects, studies with them.*

 *[...] the biggest benefit that we got from these guys [Enbridge], this group was that it kind of helped identify where the opportunities were, then brought in people who knew how to measure these inefficiencies and give proper recommendations on how to fix them and what we could expect in terms of savings.*

 *If something can spread that kind of information to all of us that would be great because you don't know how that will come up with some innovations so some new ways of saving gas that we're not aware of but they are aware of that. Maybe they are spreading the news to companies that are not very active here, that would be great. Just to keep abreast of technology.*



An acceptable payback period for energy conservation projects was generally two years (maximum) or less, some said payback would need to be within 1.5 years or less, while a few said that this could be stretched out to several years. The size of the equipment can also be a factor in that some companies recognize that bigger and more expensive equipment may have a longer payback period.

Most said that this is consistent with expected payback on other comparable capital or non-energy projects; however, a comparison was not always relevant in that other projects might be considered of greater importance to the company's operations, or that the energy conservation project was a part of a bigger project rather than being a standalone project.



We would not take anything over a two year pay back. Usually 1 or 1.5 payback [years] is reasonable to get approval from our leadership team.



If I wanted to go through easily 1.5 years, anything over two years will receive extra scrutiny.



It depends on the project, it depends on the activity. Some projects have huge payback, but they don't pass the go ahead gate due to other factors. It's one consideration. Typically, a one-year is something that could be looked at for a typical project.



The financial incentive was characterized by most **Participants** as a key component in driving the business case to get the go-ahead and implement a project, particularly when the incentive drove the payback period down to within the required 2-year window.

Some took advantage of financial incentives such as auditing or meter installation to build the business case; most took advantage of financial incentives tied to implementation of the project.

In the case where the project would move forward regardless of an Enbridge incentive, these were not standalone energy projects; nonetheless the incentives were appreciated.



And the financial incentive definitely swayed our decision to do it, because being how this additive is a cost, I would never have gotten my management to approve any sort of cost like this without having some sort of backup [...]



I think [financial incentive] is a very strong selling feature within the company to present a project that the utility has so much confidence in the outcome being beneficial, that they're willing to put up money. That's a very strong sign that we're going to have a good project.



At the end of the day, we actually got a substantial reimbursement from them for savings [...] It was incentive based on how we implemented. So they were able to say, "Okay, because you did it this way, and did it that way, then we'll give you some money back because of knowing that you guys are going to conserve on a certain front."



All respondents have some form of approval they need to get internally before proceeding with a natural gas conservation project.

This varied from company to company – management within the plant itself, senior management or executives, board of directors, owners, presidents, or the CEO. Approvals in larger companies might also depend on the size of the project – that is, the ones that require a larger investment would need to be approved by a higher level. Mention was made of having some flexibility to go ahead on smaller projects without requiring external approval.



[...] there basically is a committee that exist in your leadership team. It's usually headed by the general manager of the plant. He does establish the priorities, and he makes a recommendation based on those priorities. Utilities are rarely registered as the highest priority."



]...] we have to go through our corporate level to get there. I basically will propose a project to our plant manager, he then proposes it to the corporate level, and they get all the necessary funding to do the project if it's approved.



[...] well there's a whole process. How it works, it depends on how big of a number it is. [...] And it just depends on how high in the operation or in the organization I have to present it to.



Natural gas consumption was measured by some companies as a KPI – although typically not a principal one – and this was most commonly in terms of cost per product or unit. A per unit figure is based not only on natural gas consumption, but other costs as well. Many organizations have had success in reducing consumption as a result of a completed project.

Others did not have it in place as a KPI although they did have targets, benchmarking or a range in terms of their overall consumption which they measured after the project took place. Mentions were made of having ISO certification and / or needing to meet other regulatory requirements in terms of their natural gas consumption.

We have a monthly readout of costs by facility, and natural gas and electricity are the primary utilities that are associated with those costs. As a KPI, we look at the total natural gas cost. And more recently, we've tried to evaluate the merits of trying to unitize that using a production criteria. Although it's not a principal KPI, it is something that we use to determine effectiveness. We look at either kilowatts, or we look at natural gas consumption, and then we compare that with our production numbers that we associated with that.

We will look at gigajoules per ton, is the KPI. The amount of energy that goes into making a ton of product comes in the form of natural gas and electricity [...] There's typically the targets are released at the beginning of the year, and your target, whatever it was last year, good job. It needs to be reduced [...] year over year.



The number of meters installed was a factor in measuring consumption with those who had more meters or some form of load management were better able to pinpoint the item(s) of greatest consumption. These were characterized positively as important tools in facilitating concrete metrics in assessing and reducing natural gas consumption, both generally and in terms of production.

Those who did not, said having more meters installed would be of interest, but that cost or lack of technical knowledge was a barrier to installing these.



[...] one of the projects that happened [...] years ago, is Enbridge helped us put in gas meters all over the plant. It was one of our things that they helped [...] and so we were able to actually track the downward curve, I guess, in the usage of natural gas in the plant. We also measured as a KPI against our production so you know, it's not just a matter of going the gas usage is going up and down with production but it's measured against the production. So we measure the number of cubic meters of natural gas used for each these areas against, and we divide it by the number of square meters of [product] produced in that area.



It is something that we want to add in is a KPI. And there's been many discussions from my perspective as to, we currently can't meter it fine enough, so we don't have enough metering locations. We have one big meter that comes into the plant, so it's too hard to pinpoint where we can start saving that way. There have been some talks and some discussions as to starting to implement individual meters at different source locations, so that we can do a better job of monitoring that. But it's been some talk definitely on the table, but at this point it's kind of sitting there, to be honest.



All **Participants** characterized the services offered by Enbridge as being sufficiently or more than sufficiently flexible to meet their needs. Because most have an ongoing relationship with Enbridge this is facilitated by an open, two-way dialogue about their needs and they said that suggestions were often proactively made by their contact in terms of ideas and projects that could be implemented.

While incentives were considered flexible, a few wished for a greater level of incentivization, while acknowledging that there may not be funds available to facilitate this.



[...] they're very flexible with the projects we do, and they're very flexible with different ways, and they're really open to different ideas. They're just good to work with. They work with us at our pace, whenever we need them they're there.



Our Enbridge rep has been pretty good at describing everything we need, and helping me gather and get whatever data we need to submit to complete our application.



[...] the incentives through Enbridge seem to be more flexible on timing than other energy team initiatives I've done, for example with the electricity side, it tends to be far more regimented, not as flexible as Enbridge can be.



[...] the guy we were working with did a really good job. He was very, very conscientious, and not afraid to follow up, and give us the information we needed. I had a really good relationship as far as that's concerned.



**PARTICIPANTS:
NATURAL GAS
CONSERVATION
IMPLEMENTATION**



Only a few companies have an internal project ‘champion’ who oversees the implementation of conservation projects. For some these individuals were part of a group who are responsible across the organization, which might also include those who are more on the ground or closer to plant operations.

Others do not currently have a champion in place per se, mostly due to a lack of resources, tools and manpower.



I would say our general manager would have been the champion, once he was made aware of the opportunity. But we also had an internal project manager, an engineer who was on board with the project from the beginning. So, we kind of made sure we had somebody at the leadership level, and we had somebody at the implementation level.



There’s a few of us that see the value of it, but it’s kind of one of those things, when we have time we’ll get to it. Running a plant can be a challenge at best, so it definitely gets forgotten. There’s no question about it.



It’s not just me. I’ve only become involved because I wanted to become involved. Otherwise, really the owner keeps check on it, and that’s about it. I’ve gotten involved because I’ve seen a benefit to us, and I see how, because I control the products we use, I control the mixes, I’ve found that we might have some savings because of it. That’s where my involvement began. But as far as is there a person? No. Am I in charge of everything? No. I look after the plants I look after, but only perhaps the energy side. [...] We leave it up to the individual operators of the plants to try to reduce their energy.



In terms of implementation, complexity and involvement of others varied – the degree to which others were involved depended on the size and scale of the project – for example, on a project where the whole plant was shut down then this involved everyone who works there in the sense that they would no longer be working.

Most characterized the implementation and communication as being relatively straightforward although there was mention made of concern by those “on the ground / floor” who might be resistant to change or new technology, or feel that new technology might pose a threat to their job security. That said, these concerns were overcome with time and communication that there were other roles or functions that these workers could fill instead.



People don't like change. There's always going to be disappointments, and technical disappointments. Is everything in every situation going to be as good as it was? Maybe not. But we're still working out some, I would consider them minor technical problems, but for the most part, it's been accepted.



It [the project] was communicated across to everybody, because we were down for a couple days as a result, which shut other areas of the plant down. Everyone was well aware of what was going on.



Most believe that the project(s) implemented have been a success, on a number of fronts – cost savings, reduction in consumption, being integrated into plant operations, or meeting other objectives as identified at the outset of the project. There were a few technical issues mentioned experienced by a few, generally unrelated to Enbridge’s role in the project.

Many have undertaken more than one project over the years and are open to implementing more, if the projects continue to meet the company’s criteria for payback, cost savings, and meeting other objectives. While having more tools and resources available internally would be a desired outcome for some, having Enbridge fill these gaps is invaluable. Financial incentives would continue to be a crucial component in future.



We realized the benefits operationally. The icing on the cake was that we received some funding to cover off some costs, which was great, and I think that really helped build the trust relationship between us and Enbridge. Most recently, with the economizers on the boilers, I think the great thing is they made the process very easy.



Yeah, if they could develop [an energy management] plan for us, I’m sure we could figure out some way of distributing some responsibilities across the staff we do have. It would at least be a step forward.



All participants characterized their relationship with Enbridge positively and had difficulty identifying any drawbacks to their working relationship with Enbridge. Enbridge's role in projects varied by company and depended on the origin of the idea – in situations where Enbridge suggested a project, they were likely to be involved from start to finish although the level of requirement involvement would still vary.

Others had projects already in place (expansion, purchase of new equipment, corporate level sustainability initiatives) and reached out to Enbridge on an as-needed basis. Some had third party experts and contractors involved in implementation. Some took advantage of recommendations of Enbridge's outside expertise, while others already had their own contractors, engineers etc. in place.



[Enbridge] made high-level recommendations about what their experience was, what technologies worked the best, what the drawbacks were for the space heating that we were doing. And based on that, we said, "Okay, we're going to go with the technology that you think would work," and we put in some pilot units, tried them out. They worked.



They're very good. One of the guys, he always says that he wants us to focus on the relationship first, and then work later, which is nice to hear that... They're good at building relationships. I understand what they're trying to do with the whole energy savings model. I think it's obviously it's great for us, because it helps us.



[...] it's been good. Good relationship. I never have any problem getting contact information I'm looking for. They're always open and helpful.



And Enbridge did a great job there with us [...] they interact with the site enough to know what our processes look like. And yeah, they've been keen in the past to keep us abreast of what's coming up next.



Most were very satisfied with all aspects of their relationship with Enbridge and most did not have any further thoughts or ideas on what more could be done to improve their relationship. The time spent was typically well worth the effort in that savings have been realized as a result of taking on the project; and further, many have developed long-term positive relationships with their account representatives.

They appreciate the initiative that Enbridge demonstrates in challenging companies to conserve as much natural gas as possible, while striking a balance of not being too pushy, and identifying projects that actually bring value, rather than being a ‘sales pitch’.



I appreciate what they've done, and I would like to do more projects. I think the key for us going forward is finding other gas projects, gas-related projects that have an attractive return on investment.



I think [Enbridge] did a really good job. I think anytime we had any answers or questions for them, they were quick with answers, and I would say even before to the point of challenging us, “Is there anything more you can do? What about this? What about that?” And asking other questions of us. I think I was quite satisfied.



That's actually very unique, I've got to be honest with you, I've been doing this job for like you said over 30 years and I've never seen anybody actually come to help us and not have some other agenda [...] Other than Enbridge.



Perceptions of working with electrical utilities were mixed and not all respondents were directly involved in these projects. Some stated that their relationships were positive and that they worked together closely with their electricity utilities.

However, mention was made that electrical utilities are less responsive than Enbridge, or that they found the relationship to be more functional and about filling out applications for incentives, rather than being more holistic about identifying opportunities and working together closely. Experiences can also vary by utility.



[...] the electrical side, the incentives seem less flexible. I find that I haven't been on the electrical team for some time. But when I was there, their representatives were flexible, and helpful, and informative, it's just that their incentive system was a little more rigid.



I'll be honest, I think both of them are very good. Both of those utilities, both push us to the right amount. How's that? So, they encourage without being annoying, because they realize we have other jobs to do too.



Our work with the electric utilities has been mixed. We have one that's very good, and one that's pretty much non-existent.



One advantage of working with Enbridge over electric utilities is in the flexibility of the incentives, in that they can be retroactive for natural gas, which is not the case with electricity incentives.

Unaided mentions were made of experiences with other entities overseeing other utilities / services such as water supply and steam. These relationships were mixed – while a few had positive experiences, others characterized these relationships poorly as being unhelpful in terms of working relationship and receiving support in achieving conservation goals.



But one advantage I will say that the natural gas had compared to the electricity ones, on the electricity side, you're unable to spend any money up front. With the natural gas programs, we're able to tap into, they could go back a year back, any projects that were implemented, and potentially get some incentives. And that's an advantage for us, because even on the electrical side, you know, depending on what the project is, sometimes we just can't wait in order for the funding application to get approved before you can spend any money on the project.



[...] we're on with the City, we're definitely on some metering programs just to help us with the waste water management side of things, and to understand, or help the City understand, that every liter of water that we're being charged for, we're not actually throwing it down the sewer, right, you know, we're putting it into our process and stuff like that.



Many felt that they had learned about thermal energy and natural gas conservation as a result of their relationship with Enbridge.

Mention was made by a Non-Participant that Enbridge has actively reached out to respondents to identify and educate them on conservation opportunities, while others have learned more about this area as a natural result of working closely together with Enbridge.



I think just learning about what the different technologies are that are available. That was helpful. We clearly didn't have, we were just using the wrong type of space conditioning technology. Learning that was probably the most illuminating part of the technical project.



[...] our admin advisor for energy solutions at Enbridge and [...] this information has been passed on to us already and we have achieved quite a relationship with her and she has invited us to a lot of maybe workshops or seminars and passed on information to me regularly and once we're anybody else to start taking advantage of all this we will because I know they are available. And I've learned this in the past from a different company. And I've tried to do the same thing for my new company here [...]

NON-PARTICIPANTS: INTEREST IN WORKING WITH ENBRIDGE





There were various factors contributing to a lack of participation in available services and incentives. One key factor was this was the tenure of the respondent. For those who were newer to their roles, there was generally a lack of continuity on past natural gas conservation initiatives and so in a sense they were starting over again.

Another key factor in low awareness of available services was in the lack of a consistent relationship with a representative from Enbridge. These respondents did not have the same type of collaborative, ongoing and advisory relationship – or they used to have one, but no longer do. This meant that they lacked the proactive contact from Enbridge where opportunities are typically identified and if they are undertaking any projects on their own, would not necessarily think to reach out to Enbridge about any services or incentives.



I believe we've reached out to Enbridge to get on a natural gas supply at one of our locations last year; I can't remember the initiative that it was, it was kind of before I kind of fully involved in the role.



They've been good. But with COVID-19 it's been a little difficult for some of the ladies there, and then account managers have changed, being the changing of Enbridge and all that, so people you used to deal with you're no longer dealing with and them learning your account again it's been a little bit hectic [...] [Ideal would be we used to] deal with a gentleman – I forget what his name was – and he was an account manager. Very involved, maybe every other week would give me a call. Would call me for suggestions and ideas that we could work together to improve my usage and all that, and look at the weekly and monthly amounts and he would send the reports, and that's no longer there anymore.



Other factors included:

- Choosing not to utilize Enbridge services and incentives on conservation projects which would have gone forward regardless
- Being found to be ineligible for incentives
- A lack of fit in terms of the services provided with conservation projects
- An inability to change equipment essential to operations as the focus on items of greatest significance
- Regulatory or approval hurdles beyond the respondent's / Enbridge's control



No, we didn't [use financial incentives]. I don't think that the efficiency savings were large enough to provide any significant rebate. But it was calculated, they did look at it, but there wasn't anything that Enbridge could do [...]



I know someone has called from Enbridge trying to come in, but they seem to concentrate more on the other aspects. [With] the equipment they don't really understand and there's nothing we can really do; we can't modify the equipment.

Non-Participant study respondents were taken through a list of available services and asked for their level of awareness and interest, as follows:

***(Legacy Enbridge only) A dedicated Energy Solutions Consultant** – Industrial customers have access to a dedicated Enbridge Energy Solutions consultant who will work directly with them to assess their needs and develop a customized solution to help meet them.*

***(Legacy Union only) A dedicated Industrial Energy Conservation advisor** – Industrial customers have access to a dedicated Industrial Energy Conservation advisor who will work directly with them to assess their needs and develop a customized solution to help meet them.*

***Knowledge Development** – Enbridge hosts technical workshops, releases quarterly newsletters and provides online resources to create awareness of energy efficiency measures and best practices.*

***Opportunity Identification** – Enbridge provides assistance with identifying and quantifying opportunities for improved energy use through energy mapping, testing and analysis, such as: boiler plant performance testing, process heating equipment assessments, heating and ventilation assessments and thermal imaging.*

***Measurement and Verification** – Assistance in choosing the right metering methods to justify improvement initiatives – including availability to ultrasonic water meters and gas meters and incentives for meter installations.*

***Engineering Analysis** – Analyze and interpret site specific data to monetize savings and assist with business case development.*

***Energy Management** – Support in the development and/or enhancement of an Energy Management plan.*

Project Implementation Support through:

- ***Financial incentives** to offset project investigation (audits, studies, metering, etc.) and implementation costs*
- ***Connection to proven trade professionals** who can assist with project investigation, monetization and implementation.*



A dedicated **Energy Solutions Consultant / Industrial Energy Conservation Advisor** – amongst Non-Participants, awareness of this was mixed with some who stated that this was consistent with their understanding of and experience with such an individual at Enbridge. Others said that although this was their understanding or ideal in terms of relationship, the description provided was not consistent with their experience.

Regardless of awareness or experience, this service would be of great interest to most who felt that building a trusted and consistent relationship with a consultant / advisor could only be positive in helping them to identify and implement natural gas conservation projects within their companies. This was anticipated to be a long-term relationship given that projects may not go ahead every year– but knowing they had someone to turn to for advice or support when needed would be invaluable.



Definitely we'd be able to identify where our efficiencies or gaps are in what we're doing as a business right now, and to have us identify and then, you know, come up with a plan internally on how we're going to address that. Obviously, if, you know, me as one person, I probably can't see the big picture all the time. To have somebody that's totally outside the business and just gets an overview of what we do, and for them to, like I said, identify any gaps or anything that we may be overlooking or missing, definitely is going to come as a benefit to us.



Knowledge Development was of interest – current awareness of this service amongst Non-Participants was low. The idea of learning to help them in their jobs/roles is always of interest to most.

However the time commitment involved for an in-person format such as technical workshop was a deterrent. Many felt they would not have the time to attend in person; instead, a few expressed interest in an online format such as a webinar. Others said that there might be team members who could attend instead and share any knowledge internally. Alternately, simply having a dedicated or regular meeting with their account representative could be helpful in fostering knowledge.



More of a PDF document, or something that I could look at on my own when I can, depending on what it is.

That can be effective. I think some of it too is probably just me meeting with [name redacted] quarterly or something, just to catch up or in a formal meeting.



[...] maybe it's just not developed with me, maybe it's somebody else within my team that can kind of partner up and jump on board with this type of thing too. So, I'm going to say yeah. For us, if the opportunity presented itself and there was definitely things that lined up, I would say yeah, the knowledge part would be a benefit for us, for sure.



Opportunity Identification had mixed awareness, and was of interest to most who find value in uncovering any previously unidentified opportunities for reduced natural gas consumption and / or savings. Some felt that this already occurs naturally at their companies, as they actively investigate options, particularly when purchasing or replacing equipment but even so would welcome any advice or support that could be offered by Enbridge.

Measurement and Verification was of low awareness and mixed interest. This was of particular interest to those companies who lack sub-metering and don't have a sense of where their highest consumption equipment might be, or have unexplained usage that they would like to better understand. Others felt that they are well or sufficiently aware of their consumption and didn't feel that they would benefit from this service as a result.



I wasn't aware that [opportunity identification] was an option. If we're going to be doing a big project, for sure we'll take advantage of that in the future.

I'm open to always extra help, you know what I mean? If somebody can help to save money and improve, why not?



I like the metering thing. Nobody has ever offered that, it caught my eye on that. Looking at the metering that we have right now is good enough for us, or do we need something more accurate? I don't know, because nobody's ever sat down and talked to me about it.



Engineering Analysis amongst Non Participants was mixed to low in terms of awareness, and of high interest. Any tool or resource that can help respondents build a business case would be valuable, especially amongst those who felt that this a skill that they would not have, or have access to. However amongst others who already fill this function or have colleagues who can do so, the idea of having Enbridge take on this role was mixed.

Energy Management Plan was of low awareness and some interest, particularly given that most companies do not currently have an energy management plan in place. However, there was some difficulty in envisioning what a plan might look like, how it would / could be implemented within their companies, and what the value of these would be. The research suggests that this idea would benefit from an expanded definition in order to help companies understand potential benefits and elicit more interest.



Yeah. If we were going ahead with a certain project, then definitely, yeah. Whether it's some sort of report basically. I know those really help when we're doing investments, when we get a cost savings report and that from a company that's going to be supplying it to us.



You know, it probably wouldn't hurt to find out just exactly what the components of [an energy management plan] are so that we could compare it to what we've got. At least we could put it to bed then whether it would be of value to us or not.



Project Implementation Support had mixed awareness amongst respondents and high levels of interest.

Financial Incentives had high levels of awareness amongst respondents who at least know that these exist, although they might not be close to the details of if they would be eligible, how to apply, etc. Consistent with findings from Participants, this would be helpful in making the business case for a conservation project, particularly if it could help lower the payback period.

Connection to proven trade professionals had low awareness and was of mixed interest. Some felt this could be valuable in being connected to trusted skilled professionals and vendors, while others stated that they already have these trusted relationships in place, so this would not be a needed service.



Well, for the most part if there is a possible financial incentive that Enbridge is bringing to the table, we would have to evaluate that in the context of what it would take from our capital budget to, you know, basically make it happen. We have a number of capital projects across the business that are vying for the same pot of cash on an annual basis. And if the return is there, if the payback is there within our system, then we would be able to get the support and get our capital plans approved and move forward as such. We've got natural gas projects that are borderline or longer-term paybacks. If the incentive moves it up into a shorter payback period, it just moves it up the priority list for something that the company would pursue and support.



FUTURE NATURAL GAS CONSERVATION PROGRAMS



For **Participants**, most were very satisfied with the current scope, level, and relationship of the natural gas conservation program through Enbridge and feedback was overwhelmingly “more of the same” as a desired outcome.

Some suggestions were made of additions or changes that would be of value:

- Specific expertise or competency in each company’s technical processes
- Supporting point of use measurement, i.e. metering on every process
- Educating companies and their employees about overall conservation goals, and how employees on the floor can identify and enable opportunities
- Identifying a champion – given a lack of internal time and resources
- Technology-enabled tools and hearing about the latest innovations
- Usage information / real time data (similar to what is provided by electricity utilities)
- Understanding climate impacts of consumption and positive outcomes in terms of GHG reduction



I'm a little unsure right now if they are still supporting point of use measurement. At one point, we received incentives for installing metering, to track, and then it changed [...] But certainly, the incentives to help put in metering on every process is huge, and if they're not doing that, then going back to that would be helpful.



I think my biggest one is, it's still on my wish list, is to get individual meters in. I think because the discussion has started, I'm sure when the time comes, they'll be more than willing to help us. I'm confident with that.



On the process side, I think that there is less knowledge, in terms of conservation, by our facility people, by our people, the company's own people. So, I think if we could improve their knowledge, and their understanding of what they're up to, I think we would have a better shot at doing more process



I think other conservation initiatives, changing the dialogue from very technical to enabling people to make choices on the plant floor. So, if you can connect with people and show them how their decisions make and have an impact, that is key. We've always tried to approach it from, run your factory like you run your home. You don't leave your house in the morning and leave all the lights on, and the furnace on high, and stuff like that. We come to work and we don't have that same mental framework for some reason. We always think that somebody else is going to look after it. So, being able to do that would help us I think, from a conservation standpoint.



Definitely I need the person giving the support with tools that they have. I told you we have no tools, we have no people working on it, so I need that person to be there pushing it, motivated, for energy savings and following up with us.



[...] in terms of justifying projects, having real data before and after, both for Enbridge and for internally to justify the savings, it makes things much cleaner, because we have the data right there to show exactly what's happened.



I think like anything else, I think ideally without having somebody to champion those projects and make that their primary focus, it's pretty hard to give it the importance it needs. And not that it can't happen, but the timelines tend to get dragged on more, and more, and more, because other priorities get in the way. I think overall, having a champion is probably the best way to make it happen.



But for the program, I need the person pushing it. I need the financial, I need the technical support with the tools that they have, and just someone, the person is the most important. Just give me someone who can help me push these projects, and is caring about the projects, and that's really the most important to me.



I think just to let us know what's out there, the latest from the industry like, in order to be aggressive for these new innovations and what's happening there. What people are doing to save energy that we may not be aware of.



A hidden gem with [an electric utility in Ontario] is their interval data website. That would be a suggestion for Enbridge, is to provide an easy way for people to go in and look at their natural gas consumption real time. That way you can actually avoid buying complicated and expensive meters, if we can just get a tap into an existing meter [...] to provide a view into a portal so that we can see it, and use that information wisely.



For **Non Participants**, the ideal program would be one based on an ongoing, positive and consistent relationship with Enbridge. Initial and ongoing contact would ideally be proactive on the part of Enbridge, as respondents acknowledge that they often lack and time and impetus for conservation initiatives, but would welcome a reminder that Enbridge’s services are available. Further, they would value an ongoing and long-term partnership based on mutual trust with an Enbridge representative in an advisory capacity – so that if / when the respondent identified an opportunity, they would know who to call. Incentivizing lower overall consumption of natural gas, and emissions – that are company or industry-specific, was also mentioned.



Well, the thing is... I'm just trying to think, we buy just probably for... between Enbridge and our gas costs and stuff like that, we probably buy [amount redacted] as a cost per year for that. And we don't really have any contact with Enbridge at all, like no one really calls up and "hi, I'm your Enbridge rep". Now we used to have an Enbridge rep that would deal with us, but when he was transferred to another division, I haven't heard anything at all from Enbridge. I mean there's sometimes I get e-mails from them about... because I guess we're a large volume gas user and that, but I haven't had a contact from Enbridge in probably eight years.



[...] every year since 2000, our CO2 intensity kilograms per kilogram shipped has reduced every single year. And so, incentivizing operations to be better consumers of the utility through both emissions and consumption metrics I think would be very helpful. Because that would provide incentive for people, other than just saving on their monthly bill.

**THANK
YOU.**



About Ipsos

Ipsos is the third largest market research company in the world, present in 90 markets and employing more than 18,000 people.

Our research professionals, analysts and scientists have built unique multi-specialist capabilities that provide powerful insights into the actions, opinions and motivations of citizens, consumers, patients, customers or employees. Our 75 business solutions are based on primary data coming from our surveys, social media monitoring, and qualitative or observational techniques.

"Game Changers" – our tagline – summarises our ambition to help our 5,000 clients to navigate more easily our deeply changing world.

Founded in France in 1975, Ipsos is listed on the Euronext Paris since July 1st, 1999. The company is part of the SBF 120 and the Mid-60 index and is eligible for the Deferred Settlement Service (SRD).

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Game Changers

In our world of rapid change, the need for reliable information to make confident decisions has never been greater.

At Ipsos we believe our clients need more than a data supplier, they need a partner who can produce accurate and relevant information and turn it into actionable truth.

This is why our passionately curious experts not only provide the most precise measurement, but shape it to provide True Understanding of Society, Markets and People.

To do this we use the best of science, technology and know-how and apply the principles of security, simplicity, speed and substance to everything we do.

So that our clients can act faster, smarter and bolder. Ultimately, success comes down to a simple truth:
You act better when you are sure.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

Interrogatory

Issue 17

Question(s):

- a) Please provide details of the 2023 Stakeholder Engagement Process and Program.
- b) Specifically highlight the residential sector program

Response:

- a) Please see Exhibit E, Tab 4, Schedule 6, pages 8-9 for Enbridge Gas's proposal for future stakeholder consultations. The Company is proposing to host an annual DSM Stakeholder meeting, shortly following the completion of the Draft Annual DSM Reports, likely in April of each year.

The annual DSM Stakeholder meetings will be held to discuss achievements and challenges to date, identify potential areas for improvement, provide program updates, discuss changes in the marketplace and other topics as appropriate through the evolution of the multi-year term. The goal of these meetings will be to provide ongoing communication, share information and ideas, and facilitate meaningful discussions between Enbridge Gas and stakeholders in the spirit of continuous improvement and transparency.

Additional stakeholdering to address a specific topic, customer sector or program offering will be conducted throughout the DSM Plan term as needed.

- b) In addition to the annual DSM Stakeholder meetings with intervenors, Enbridge Gas intends to regularly engage with its residential stakeholders throughout the DSM Plan term. Enbridge Gas will continue to solicit feedback from contractors, municipal partners, and service organizations/registered energy advisors on a regular basis to understand how the market is responding to its residential offerings and identify any challenges or opportunities for improvement.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

Interrogatory

Issue 17

Question(s):

- a) Please provide a summary of all stakeholder consultation conducted in development of the proposed 2023-2027 DSM Plan.
- b) Please provide a list of all municipalities consulted in development of the 2023-2027 DSM Plan and a copy of their input.

Response:

- a) The OEB-led stakeholder consultation for the development of the new DSM Framework commenced with the OEB's Letter on May 21, 2019 initiating the post-2020 natural gas DSM framework consultation process with natural gas distributors and all interested parties. Through this process, Enbridge Gas was able to leverage the feedback provided to the OEB, to help inform the development of the proposed DSM Plan.

Enbridge Gas also conducted sector based or program specific stakeholder consultation/research to gather insight into the customer experience, state of the market, and areas for program improvement. Stakeholder efforts took the form of informal discussions, qualitative market research and surveys with key market actors, as further identified below.

Residential Program

- The 2020 Residential Natural Gas End Use Survey – 2,400 sponsor-identified interviews were completed by Leger between November and December 2020 with customers in single family dwellings responsible for making energy related decisions. The focus of the report was to measure penetration of natural gas appliances, understand customer perceptions of the levels of insulation in their home, and determine awareness of Enbridge Gas's energy conservation programs. A copy of the survey can be found at Attachment 1 to Exhibit I.10.EGI.ED.22.
- In the summer of 2020, Enbridge Gas held meetings with its residential stakeholder representatives including, HVAC contractors, insulation and

renovation contractors, municipalities, and Service Organizations to help inform residential program design for the new DSM Plan.

Low Income Program

- In the summer of 2020, Enbridge Gas held individual meetings with Low Income customer associations to gather insight into customer needs, barriers, and areas for program improvement. In tandem, Enbridge Gas continued to leverage its relationships with Indigenous community leaders for insight into needs and barriers for on-reserve Indigenous customers.
- In March 2021, Enbridge Gas held Low Income stakeholder consultation sessions with four Low Income customer associations to provide an update on proposed program changes and to seek feedback in order to refine program design and delivery ahead of the submission. A summary of the discussions can be found in Exhibit E, Tab 4, Schedule 6, pages 2 to 5, and a copy of Enbridge Gas' presentation can be found in Exhibit E, Tab 4, Schedule 6, Attachment 1.
- The 2020 Residential Natural Gas End Use Survey, described above under the Residential Program was also used to support the Low Income Home Winterproofing Offering for single-family dwellings.

Commercial Program

- Commercial stakeholder engagement included a series of interviews and a series of three focus groups with key associations and customer groups to provide insight into customer priorities, needs and program gaps that would help to inform the suite of offerings in the Commercial Program of the new DSM Plan. These interviews were conducted by a third-party, Ipsos, and completed throughout the summer of 2020. Customer segments that were targeted included: commercial buildings, multi-unit residential buildings, municipalities, institutional buildings, small business associations, and property management groups. The final report provided by Ipsos can be found in Exhibit E, Tab 1, Schedule 4, Attachment 1.

Industrial Program

- Industrial stakeholder engagement included 25 in-depth interviews conducted between March and June of 2020 with a sample of large and small Industrial customers across both legacy utilities, including past participants and non-participants. The study was conducted by a third-party, Ipsos, in order to gain customer insights about priorities, barriers, and needs to inform the Industrial Program of the new DSM Plan. A copy of the Ipsos report "2020 Industrial Next Gen DSM Customer Engagement Research: In-Depth Interviews" highlighting the first round of interviews can be found at Exhibit E, Tab 1, Schedule 5, Attachment 2. A copy of the complete study consisting of

findings associated with the first and second round of interviews can be found at Attachment 1 to Exhibit I.17.EGI.CME.7a.

- Industrial Customer Survey - Over 105 Industrial customers completed an online and telephone survey between September and December 2020. The survey questions were developed to dig deeper into findings associated with 25 in-depth interviews with Industrial customers conducted earlier in the year, as referenced above. The objective of this survey was to gain a better understanding of the needs and preferences of Industrial customers for consideration in the development of the Industrial Program. Please see Exhibit E, Tab 1, Schedule 5, Attachment 1 for the full report.

Large Volume Program

- Enbridge Gas has dedicated personnel that work with and maintain on-going one-on-one relationships with Large Volume customers. From these relationships, Enbridge Gas staff regularly gathers feedback from customers on barriers, enablers and general areas of improvement that has been incorporated into the Large Volume Program design for the new DSM plan. A summary of the discussions held with Large Volume customers can be found in Exhibit E, Tab 4, Schedule 6, page 7 to 9, and a copy of Enbridge Gas' presentation can be found in Exhibit E, Tab 4, Schedule 6, Attachment 3.

Pay for Performance Program

- To gather customer and market insight into how to best design and deliver the proposed Whole Building Pay for Performance offering, Enbridge Gas held informative individual meetings with business partners, former RunitRight, Runsmart and performance based pilot delivery agents, the IESO, and a large schoolboard. A summary of the discussions can be found in Exhibit E, Tab 4, Schedule 6, pages 5 to 6, and a copy of the presentation can found in Exhibit E, Tab 4, Schedule 6, Attachment 2.

Building Beyond Code Program

- Stakeholdering associated with the Building Beyond Code program took the shape of discussions with municipal representatives, program delivery agents, industry associations (e.g., EnerQuality) as well as market actors such as architects, builders and developers.
- More formalized stakeholder efforts were conducted by third party through in-depth stakeholder interviews with industry professionals, including building owners and developers, architects, modelers, municipal representatives as well as technology and code subject matter experts in order to inform market challenges and how Enbridge programming can be enhanced to better meet the needs of the sector. Findings are summarized in the reports by SeeLine

- Group Ltd., and Building Knowledge Canada Inc. See Exhibit E, Tab, 2, Schedule 2, Attachments 1 and 2 for full reports.
- The 2020 Residential Natural Gas End Use - New Housing Report - 801 sponsor-identified interviews were completed by Leger between November and December 2020 with customers who reside in single family dwellings built within the prior 18 months (built after May 2019) and are responsible for making energy related decisions. The focus of the report was to measure penetration of natural gas appliances, understand customer perceptions of the energy efficiency levels of their home and their familiarity with energy efficiency rating systems, and determine key factors in the home purchase decision. A copy of the report has been included as Attachment 1.

Low Carbon Transition Program

- In developing the new Low Carbon Transition program, Enbridge Gas sought input and insight from industry and government stakeholders for its residential and commercial offerings, including: the IESO, manufacturers, distributors, and trade associations.
- b) As part of the development and planning process for the new DSM Plan, Enbridge Gas engaged with several municipalities in its franchise area as part of the Company's broader Commercial program stakeholdering efforts. As part of this effort, Enbridge Gas retained Ipsos to conduct a series of interviews and focus groups with customers segments of the Commercial sector. Twenty-three municipalities participated and provided feedback on how Enbridge Gas can better support municipalities with their energy needs. A summary of the stakeholder feedback from municipalities can be found in the Ipsos report in Exhibit E, Tab 1, Schedule 4, Attachment 1, pages 55 to 74 of the application.

Since the Ipsos report, Enbridge Gas has continued to stakeholder with municipalities in its franchise area to further develop and refine the Company's DSM strategy to best support municipalities in their energy goals and climate action plans. Throughout early June 2021, Enbridge Gas held several focus group sessions with over 20 municipalities and non-governmental associations. A copy of the report from Enbridge Gas' Municipal Focus Group sessions can be found at Attachment 2.

MUNICIPAL FOCUS GROUPS
Your feedback matters

JUNE 1-10, 2021



CHALLENGES

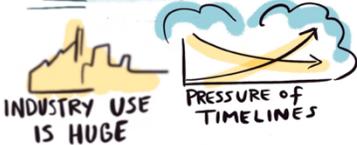
ENBRIDGE SELLS GAS WHICH CONTRIBUTES TO GREENHOUSE GAS



UNAMBITIOUS DSM PROGRAM

ASSET MANAGEMENT/ GRID DEFLECTION

URGENT NEED for RAPID CHANGE



BILLING & SERVICE

- NO SINGLE POINT OF CONTACT
- CAN'T EMAIL
- NO PAPER TRAIL

WAITING IN QUEUE

LACKING ACCESS TO DATA

CURRENT SERVICES

INCENTIVES

INFRASTRUCTURE IMPROVEMENT

PLANNING

OPPORTUNITIES

PLANNING

FOR THE LONG TERM FOR THE DIFFERENT FUTURE A VERY DIFFERENT FUTURE BEYOND 2030

CO-BENEFITS BUILD PARTNERSHIPS

INTEGRATION of EFFORTS CONTINUE the CONVERSATION

SHARE AMONG MUNICIPALITIES & ENBRIDGE

OPEN COMMUNICATIONS BE MORE TRANSPARENT

FOLLOW THROUGH ON R&D PROJECTS

WHAT'S UP WITH THAT PROJECT?

TRANSPARENCY

CLARITY of DIRECTION

WHAT NEXT?

WHAT'S THE PLAN?

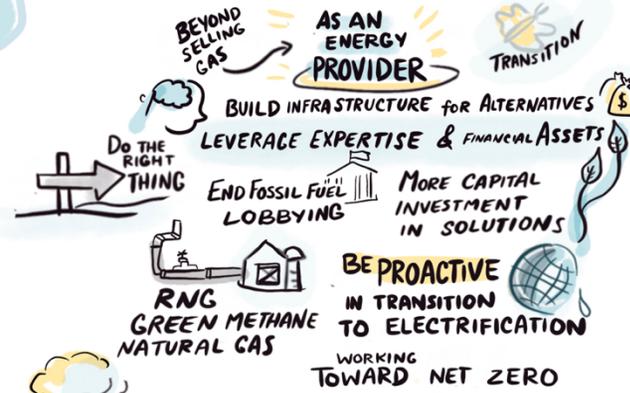
TRUST

FUEL SWITCHING

AIR SOURCE HEAT PUMPS

A LOW CARBON FUTURE

ENBRIDGE CAN BE A LEADER



CARBON TAX TO PAY for R&D

SHARE DATA

MONITOR SHARE COST/BENEFIT DATA

DATA ACCESS & USE

FUTURE'S MODELLING

REMOVE BARRIERS TO HOME UPGRADES

A "NEW NORMAL" BUSINESS MODEL BUILT ON COLLABORATION

ENBRIDGE TAKES RESPONSIBILITY

ETHICAL LEGAL

FOR REDUCING GREENHOUSE GAS

COMPENSATE for USE of RIGHT of WAY

Engagement Summary Report
July 2021

KENNEDY CONSULTING

What?

This report summarizes the key, high-level themes that emerged from four focus groups hosted in June 2021. The focus groups were organized to listen to a cross-section of municipalities and non-governmental organizations (NGOs) in Ontario serviced by Enbridge. The intent of the process was to listen, and record feedback from all participants to understand the perspectives around how Enbridge is and/or is not meeting the needs and expectations of municipalities, particularly as it relates to the company's role in a low carbon future.

Why?

Climate change action and energy planning in Ontario is happening on many fronts. Municipalities are on the front lines, leading Ontario into a low carbon future. Enbridge continues its work to plan for a low carbon future and seeks to use the information collected to reflect on how it serves municipalities today, and how it can support municipalities in the future, particularly in the transition to low carbon energy solutions.

When?

Four 2-hour virtually facilitated focus groups were hosted on June 1, 3, 8, and 10 with external participants.

Where?

All engagement was conducted virtually via Microsoft Teams (4 Focus Groups).

Who?

Thirty-one municipalities and six NGOs (including, WR Community Energy; Clean Air Partnership; QUEST; Atmospheric Fund; Association of Municipalities of Ontario; and ICLEI) were invited to participate in the engagement process. The municipalities were geographically distributed, representative of Enbridge's service territory, and comprised of upper, lower, and single tier municipal government structures. 74% of the invited municipalities, and 83% of NGOs, participated in the process.

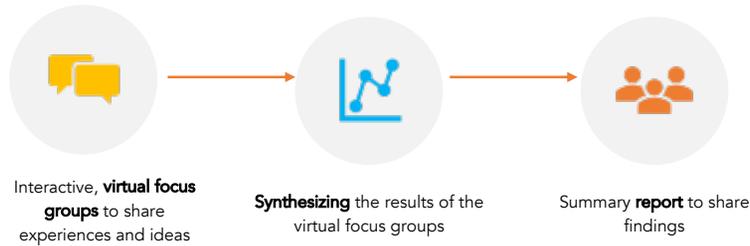
The engagement process was planned, facilitated, and recorded by Kennedy Consulting. The project management team for this process is Chris Hamilton, Rob Kennedy, Cindy Mills and Mark Wilson.

How?

Fifty-two participants attended the focus groups. All participants were provided with written background information, an invitation to participate, and an agenda and reminder via email. During the focus groups, participants discussed questions related to challenges, opportunities, and a low carbon future. A composite image of the key themes is included on page 1 and written themes are on pages 3 and 4.

Enbridge thanks everyone who participated in the focus groups. Your time, expertise and valuable feedback is greatly appreciated. Please share comments or questions: mark.wilson@enbridge.com

ENGAGEMENT PROCESS



ENGAGEMENT SNAPSHOT

-  **4** virtual focus groups held
- 31** Municipalities and **6** NGOs invited to participate 
-  **74 %** municipalities and **83 %** NGOs participated
- 52** participants in total 
-  All **4** focus groups were graphically recorded

PARTICIPATING ORGANIZATIONS



Municipalities

1. City of Brantford
2. City of Greater Sudbury
3. City of London
4. City of Mississauga
5. City of Ottawa
6. City of Sault Ste. Marie
7. City of Thunder Bay
8. City of Timmins
9. City of Toronto
10. City of Windsor
11. Dufferin County
12. Grey County
13. Municipality of Chatham-Kent
14. Municipality of Clarington
15. Regional Municipality of Durham
16. Regional Municipality of Peel
17. Regional Municipality of Waterloo
18. St. Catharines
19. Town of Bracebridge
20. Town of Halton Hills
21. Town of Newmarket
22. Town of Oakville
23. United Counties of Prescott & Russell

NGOs

1. Association of Municipalities of Ontario (AMO)
2. Clean Air Partnership (CAP)
3. QUEST
4. The Atmospheric Fund (TAF)
5. WR Community Energy

External participants generously shared their experiences and insights related to challenges, opportunities and ideas to move towards a low carbon future together. The following lists provide a synopsis of the key themes that emerged during the external focus groups and are presented using the words of participants, in a “What We Heard” format.

Challenges

Reported, perceived challenges included:

Enbridge’s Business Model

- Enbridge’s business model conflicts with climate change goals
- Conversation with Enbridge is constrained by its current core business
 - the sale of natural gas which is not aligned with municipal low carbon objectives
- Maintaining gas infrastructure with reduced revenue and planning for grid defection in a low carbon future

Lack of Support for Alternative Energy Sources

- Perception that there is no aggressive support for electrification, fuel switching and other alternatives to natural gas
- Conservation programs are unambitious; limited to reducing gas consumption as opposed to eliminating gas use

Access to Data

- Barriers to access energy consumption and emissions data at the household and community level
- Limited carbon-related disclosure, corporately

Communication & Transparency

- Lack of transparency and knowledge about Enbridge’s long-term goals related to the energy transition
- Enbridge needs to be more transparent about the emissions produced during the production of the natural gas and its transportation.

Customer Support

- Master billing system is onerous and there is a sense that there is no central (or easily accessible by email) point of contact at Enbridge to resolve billing discrepancies
- The “one size fits all” approach by Enbridge does not work
- No legal framework to compensate for use of right-of-way(s)

Opportunities

Reported, perceived opportunities included:

Building Partnerships

- Enbridge should be supporting the development of business models and project plans that can be robbed and duplicated (RND) especially when it comes to the assets that municipalities manage, opportunities for new development, existing development, fleet, and waste management
- Consulting with municipalities to ensure energy programs align with municipal objectives
- Actively partnering in the transition to a low carbon economy

Opening Communication

- Hosting regular and transparent engagement with municipalities on aspect(s) of service delivery that directly impact them
- Transparency in terms of Enbridge's net-zero plans beyond 2030
- Streamlining communication between Enbridge departments that deal directly with municipalities and other levels of government to ensure consistent and accurate messaging

Ceasing Investment in Natural Gas infrastructure

- Eliminating natural gas infrastructure into new developments and establishing a moratorium on new infrastructure expansion

Incentivizing Decarbonization

- Supporting research and development in low carbon solutions that decarbonize our network such as: renewable natural gas (RNG) and fuel switching, hydrogen, geothermal, district energy, solar, compressed natural gas (CNG), liquefied natural gas (LNG)
- Providing product options that help to move, meaningfully, to net-zero (deep retrofits, district energy, geothermal, etc.)
- Deploying ground source thermal loops instead of natural gas in new housing developments and replacing central air unit with air-source heat pump is a low effort way to reduce emissions.

Leveraging In-House Expertise and Financial Assets

- Assisting with energy modelling
- Investing in municipal community energy projects such as district energy systems
- Enbridge has an opportunity to meet its climate objectives and its mandate to maintain profitability as a private organization by helping both the private sector and municipalities with the upfront capital required to finance various forms of low carbon energy infrastructure – geothermal, district energy, deep energy retrofits.

Enbridge's Potential Role in a Low Carbon Future

Reported, perceived ideas about Enbridge's role in a low carbon future included:



Taking a Proactive Leadership Role

- Enbridge can take a leadership role in the transition to carbon-free energy alternatives by actively planning for a net-zero, decarbonized future and creating new green jobs



Investing in Alternative Solutions

- Capitalizing on opportunities from the energy transition, e.g., pursuing clean hydrogen production and distribution and other renewable energy solutions. The carbon tax will increase the price of natural gas significantly in the future, other renewable solutions may become more feasible



Corporate Rebranding

- Consider repositioning Enbridge Gas as an "energy solutions provider" not natural gas company



Partnering and Collaborating with Municipalities

- Supporting municipalities with their climate action objectives via capital investments (in district energy projects, for instance) and providing significantly more capital investment into low-carbon solutions.



Changing the Business Model

- Eliminating lobbying for fossil fuel subsidies. Enbridge is working hard on transitioning to lower emissions and helping communities and homeowners improve their energy efficiency, but I think that lobbying for fossil fuel subsidies is an important point that we can't ignore.
- Installing smart meters on all client accounts



Providing Regular & Transparent Communication

- Publishing carbon footprint of operations
- Providing greenhouse gas emissions calculations to customers, including viz marketing and billing.

New Housing: Residential Natural Gas End Use

2020 Annual Results

Legacy Union Gas and Legacy Enbridge Gas Distribution



Customer & Market Insights
Reported March 2021



Background

Objectives

- Measure the penetration of natural gas appliances within the franchise “new build” customer base;
- Understand customer perceptions of the energy efficiency levels of their home and their familiarity with energy efficiency rating systems; and
- Determine key factors in the home purchase decision.

Methodology

- Respondents are customers who reside in single family dwellings built within the prior 18 months (built after May 2019) and are (mainly) responsible for making energy-related decisions for the home
- Sponsor identified telephone interviews were fielded by Leger, a Canadian market research vendor, over the period November 16 - December 5, 2020
- 801 interviews were completed across the total Enbridge Gas area, with 400 in the Legacy Enbridge Gas Distribution area (LEG) and 401 in the Legacy Union Gas area (LUG). Total results are weighted by the total proportion of customers in each franchise area.
- Overall results yield a margin of error of +/-3.4% at the 95% confidence interval



Region Definitions

- Results in this report are mostly reported by legacy utility. Unless otherwise noted, results in this report are based on all customers (EGI, comprised of LUG and LEG combined).
- The regions reported in this report are defined as follows:

Region Name	Includes	
Northern	Northeast, Northwest	LUG
LUG Eastern	Eastern	LUG
LEG Eastern	DMA 65	LEG
GTA West & Niagara	DMA 76, DMA 53, DMA 21	LEG
Toronto	DMA 01	LEG
GTA East	DMA 35, DMA 45, DMA 47	LEG
Southeast	Waterloo/Brantford, Hamilton/Halton	LUG
Southwest	Windsor/Chatham, Sarnia/London	LUG



Executive Summary (1 of 2)

- Natural gas continues to be used for home heating and water heating the majority of newly built homes across the franchise area, though it is noted that home heating for LEG is down slightly to 91%, while water heating is down slightly for both LUG and LEG customers
- Some differences between LUG and LEG areas can be explained by the different types of homes built in these areas – LUG has more custom built and single detached homes compared to LEG which sees more tract/production homes and attached row / townhomes
- The use of natural gas to fuel secondary appliances varies, with some differences across the legacy utilities:
 - Prevalence of natural gas cooktop/stoves is somewhat higher in LUG (44%) compared to LEG (37%), and while a bit lower compared to 2019 it remains higher in newly built homes compared to single family homes (of all vintages)
 - Natural gas clothes dryers are more prevalent among LUG customers (14%) compared to LEG customers (4%), less common in 2020 compared to 2019, and less common compared to single family homes
 - Compared to previous years, fewer natural gas fireplaces are installed in new homes across both legacy utility areas and the proportion of homes is now similar to single-family homes more generally
- While a new house is more likely to have a Smart or Wi-Fi Thermostat (compared to the average single family residential home), half of new homes still have programmable thermostats installed (58% in LUG and 50% in LEG)
- In 2020 we see the proportion of tankless water heaters continue to grow (to 56% in LUG, which is slightly higher than in LEG) – ownership levels (rather than renting) stayed the same, while the proportion who said builders offered a choice for the fuel type is down slightly, but significantly higher among LUG customers compared to LEG



Executive Summary (2 of 2)

- Just over half of customers believe that their home is built to a higher level of energy efficiency (EE) compared to the standard new home built to the Ontario Building Code standards, and a similar proportion discussed the home's EE with the builder prior to making the purchasing decision (this proportion is slowly declining) – most customers who discussed the home's EE with the builder expressed satisfaction with the usefulness and amount of information provided (satisfaction is lower among those who did not discuss EE with a builder)
- Among factors that influence the purchasing decision, this year EE is no longer in the top 5 of mentions, but its prevalence varies by region – few considered certification as a factor in the purchasing decision
- Familiarity with home EE rating systems has moved very little over the last several years, with the majority of customers being unfamiliar or never having heard of most rating/certification systems (with the exception of ENERGY STAR) – 1-in-5 customers indicate seeing some Energy Star advertising during the process
 - Solar Ready Homes was added to the questionnaire in 2020, and overall, this garners greater familiarity than Net Zero (and Net Zero Ready) and Passive Houses



Overview of Natural Gas Appliances

- Natural gas continues to lead as the fuel of choice for home and water heating across the entire franchise area, though is down compared to last year for home heating in LEG, and down for both LUG and LEG for water heating
- The prevalence of natural gas appliances in new homes is quite similar across the franchise area for most appliances, except for natural gas dryers and natural gas barbecues, which are much more popular in the LUG area

	2012	2013	2014	2015	2016	2017	2018	2019			2020		Single Family
				<i>LUG</i>				LUG	LEG	EGI	LUG	LEG	EGI
Home Heating	93%	97%	97%	96%	97%	95%	95%	95%	94%	93%	96%*	91%	96%
Water Heating	87%	88%	85%	88%	85%	86%	83%	85%	83%	76%	79%	75%	85%
Stoves/Cook tops	36%	36%	39%	46%	48%	53%	41%	50%*	40%	40%	44%	37%	31%
Clothes Dryers	15%	(--)	10%	16%	20%	17%	15%	22%*	7%	8%	14%*	4%	15%
Fireplaces	59%	48%	55%	57%	60%	56%	51%	53%	62%	47%	45%	49%	42%
Barbecues	(--)	(--)	31%	28%	30%	28%	26%	26%	23%	21%	27%*	17%	27%

(--) indicates no measurement

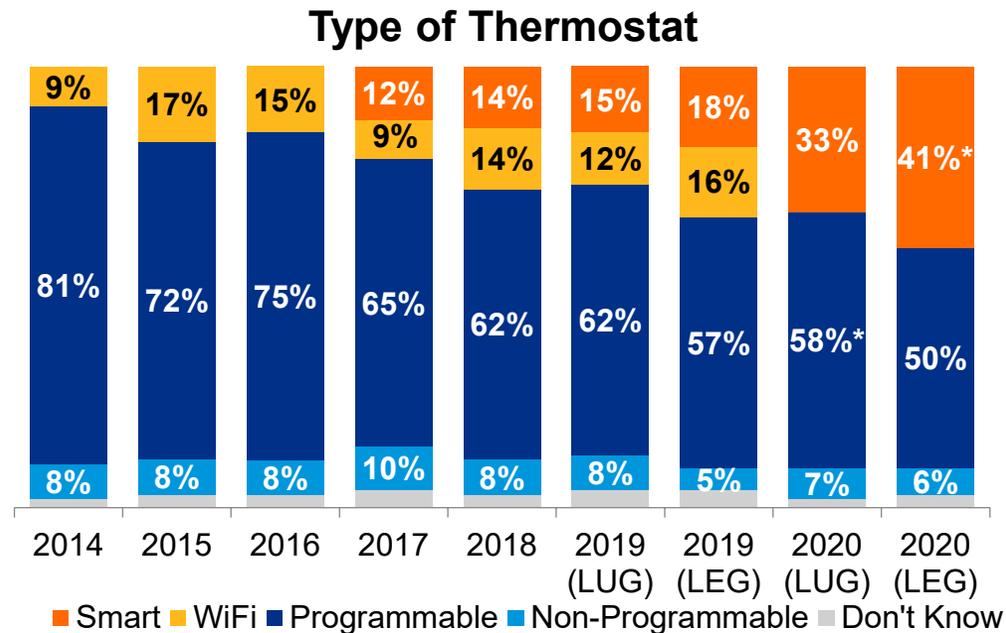
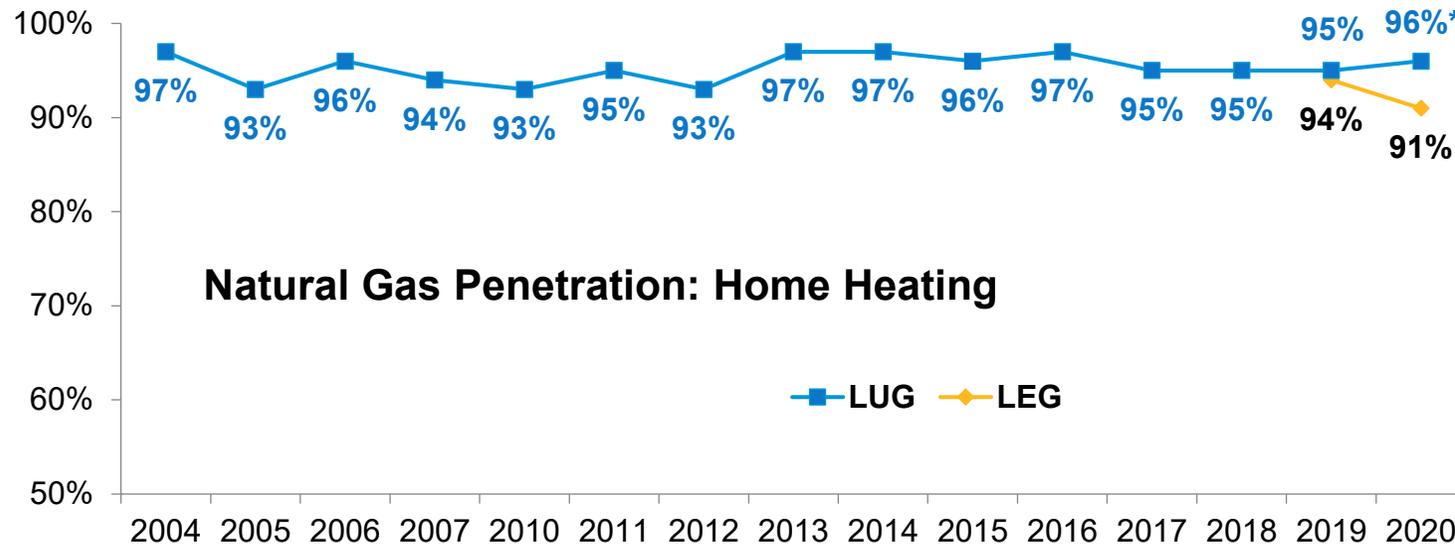
2011-2014 results for Outdoor BBQs restated on full population base size for consistent comparison.

* Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



Home Heating: Gas Adoption & Equipment

- Natural gas continues to be the choice for home heating – the remainder tend to heat with electricity (7% for EGI)
- Heating equipment continues to be predominately forced air (83% in LUG and 68% in LEG) though it is noted that a sizable group of customers is not aware of the type of heating equipment in the home (12% in LUG and 21% in LEG)
- Most thermostats were included with the home (80%), while the remainder were purchased and installed by the customer
- Smart Thermostats are significantly more popular in the LEG franchise area (especially among younger and higher income customers)



Q: What is the MAIN energy source for heating your home? Q: What type of natural gas furnace or heating system do you have? Is it a forced-air system, a hydronic system using a hot water radiator, a space heater, or a combination system where the water heater, rather than a furnace, heats your home? Q: Which of the following thermostats do you have? Q: Was this thermostat included with the home or did you purchase and install a new one when you moved?

* Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



Fireplace: Gas Adoption & Equipment

- Just over half of customers have a fireplace (57%) down from 69% last year to 57% for LEG customers – among them, the majority have just one – fireplaces are especially popular in LEG Eastern (66%) and GTA East (62%) and Southwest (61%)
- The majority have fireplaces that are natural gas (85% LEG, 78% LUG), followed by electricity
- Almost 1-in-5 customers are likely (fairly/very/extremely) to install an indoor fireplace in the next 2 years – among them most would put in natural gas or electricity

Do you have an indoor fireplace?	LEG	LUG	Any fueled by ...	LEG	LUG	Likely to install an indoor fireplace in the next 2 years (and what fuel)	LEG	LUG
Yes	57%	58%	Natural Gas	85%*	78%	Extremely / Very / Fairly Likely	17%	21%
... One	53%	49%	Electricity	16%	24%*	... Natural Gas	3%	10%
... Two or more	4%	9%*	Wood	0%	0%	... Electric	10%	7%
No	43%	42%				... Other	1%	1%
						Not very / Not at all Likely	80%	77%
						Don't Know	2%	2%

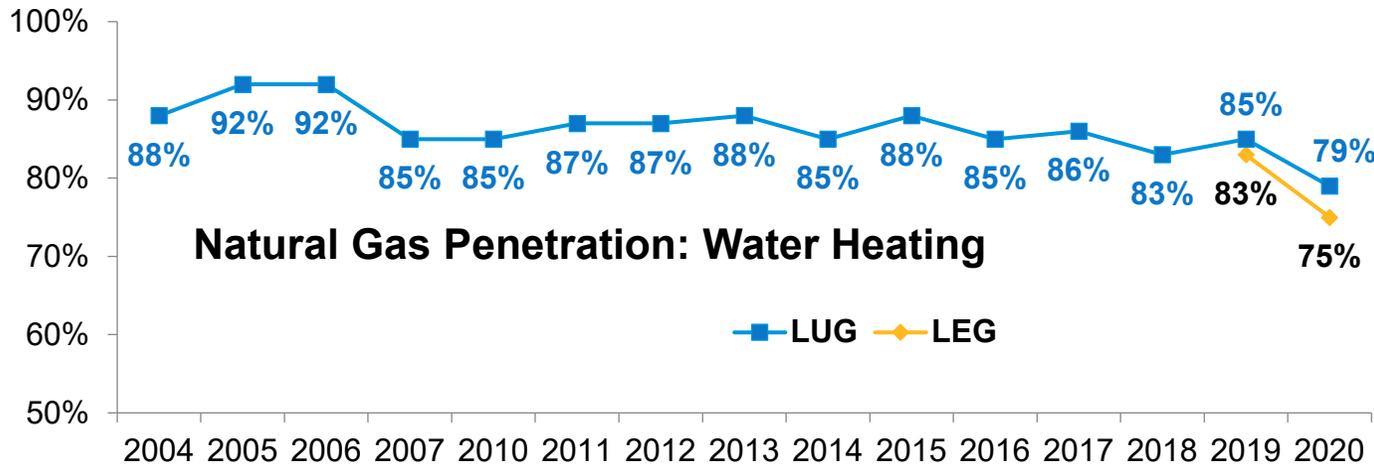
Q: Are there any indoor working fireplaces in your home? Q: How many indoor working fireplaces do you have in your home? Q: And which energy source does (FIREPLACE #) use? Q: How likely are you to install an indoor fireplace in your home in the next 2 years? Are you ... Q: And what type of fireplace are you most likely to install?

* Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



Water Heating: Gas Adoption & Equipment

- Though softening compared to previous years, natural gas continues to be popular for water heating – the remainder have electric water heaters (20% in LUG and 23% in LEG) or something else
- Just over 1-in-4 LUG customers say their builder offered them a choice of type of water heater, while the same is only true for 11% of LEG customers (highest in Northern (40%), Southeast (24%) and Southwest (30%) regions)
- About half of customers have a tankless water heater - they are much more popular in LUG Eastern (76%), LEG Eastern (71%) and Southwest (64%) regions
- Ownership drops a little for LUG customers (down from 39%) but remains much higher compared to LEG customers (13%)



Builder offered a choice between Natural Gas and Electricity ...	LEG	LUG
Yes	11%	28%*
No	82%*	66%
Don't Know		6%
Type of Water Heater	LEG	LUG
Tank	48%	43%
Don't Know	3%*	1%
Ownership of Water Heater	LEG	LUG
Owned	13%	31%*
Rented	84%*	69%
Don't Know	2%	0%

Q: What type of water heater do you have? Is it ...? Q: Did the builder allow you to choose the fuel you would prefer your water heater to be powered by?
 Q: Does your water heater have a tank or is it tankless? Q: Is your water heater owned or rented?
 * Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



Cooking: Gas Adoption & Equipment

- Most customers have a stove (especially LUG customers), though some have cooktop/countertop ranges and separate built-in ovens (multiple combinations are possible) – most stoves are bought new by the customer (77% for LEG and 85% for LUG), while the remainder tend to be included as part of the builder’s incentives (the same is true for cooktop / countertop ranges)
- Compared to last year, fewer stoves in the LUG area use natural gas
- Most customers purchased a new stove – among those who had the stove included as part of the builder incentives just 11% paid extra for an upgrade (among EGI customers)

Do you have a ...	LEG	LUG	Fueled by Natural Gas (%)	LEG	LUG	Stove was ...	LEG	LUG
Stove	78%	85%*	Stove	36%	42%	Brought the OLD one	3%	4%
Cooktop / Countertop range	21%*	14%	Cooktop / Countertop range	41%	55%	Purchased a NEW one	77%	85%*
Separate built-in oven	8%*	5%	Separate built-in oven	12%	11%	INCLUDED as part of the builder incentives	19%*	11%

Q: Do you have a stove, or do you have a cook top with a separate oven? Q: Is your stove / cooktop / counter range / separate built-in oven fueled by natural gas or electricity? Q: Did you bring your stove / cooktop / counter range / separate built-in oven from a previous home or did you purchase a new one when you moved? Q: Was the stove / cooktop / counter range / separate built-in oven included as part of the builder incentives or did you have to pay extra for an upgrade? Q: Assuming your stove / cooktop / counter range / separate built-in oven does not break down, how likely are you to replace it in the next 2 years? Are you...? Q: What type of stove / cooktop / counter range / separate built-in oven are you most likely to replace your current appliance with? * Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total. 10



Dryer: Gas Adoption & Equipment

- Most customers have a clothes dryer in their home (98%), which was most likely a newly purchased one (78% among LEG customers, 83% among LUG customers)
- Most are dryers are purchased new, and are fueled by electricity rather than natural gas, though natural gas dryers are much more prevalent in the legacy Union Gas franchise region (led by the Southwest (16%), Southeast (14%) and Northern regions)
- Among those who indicated that the dryer was included as part of the builder incentives 8% indicated that they had to pay extra for an upgrade
- Among those who indicated that they brought their old dryer, 11% indicated that they expect to replace their dryer in the next 2 years

Do you have a clothes dryer?	LEG	LUG	Fueled by ...	LEG	LUG	Dryer was ...	LEG	LUG
Yes	98%	98%	Natural Gas	4%	14%*	Brought the OLD one	3%	10%*
No	2%	2%	Electricity	95%*	85%	Purchased a NEW one	78%	83%
Don't Know	1%	1%	Don't Know	1%	1%	INLCUDED as part of the builder incentives	18%*	7%
						Other	1%	1%

Q: Do you have a clothes dryer? Q: Is it a natural gas or an electric dryer? Q: Did you bring your dryer from a previous home or did you purchase a new one when you moved? Q: Was the **dryer** included as part of the builder incentives or did you have to pay extra for an upgrade? Q: Assuming your dryer does not break down, how likely are you to replace it in the next 2 years? Are you...? Q: What type of dryer are you most likely to replace your current dryer with? * Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



Barbecue: Gas Adoption & Equipment

- 3-in-5 customers have an outdoor barbecue (62%) in LUG and significantly fewer in LEG (41%) – barbecues appear to be less popular in GTA West & Niagara (39%) and GTA East (32%)
- The majority of barbecues use propane, followed by natural gas, while a distant third choice is charcoal briquettes

Do you have an outdoor barbecue?	LEG	LUG	Fueled by ...	LEG	LUG
Yes	41%	62%*	Propane	53%	48%
			Natural Gas	40%	44%
No	58%*	38%	Charcoal Briquettes	4%	4%
			Electricity	0%	1%
Don't Know	1%	0%	Wood	2%	2%

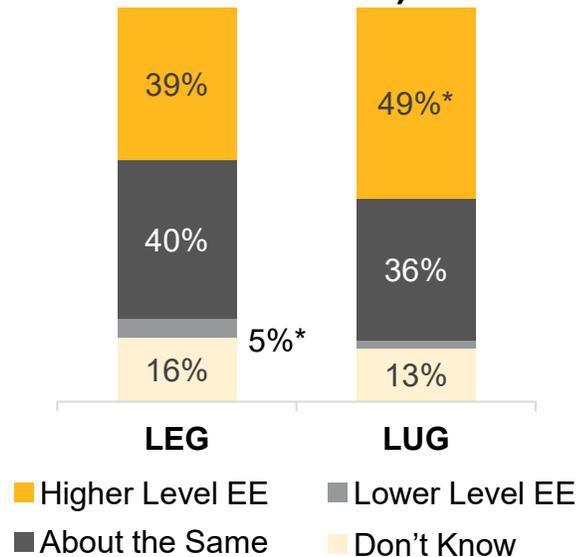
Q: Do you have an outdoor barbecue at your home? Please do not include barbecues at the cottage or those used only for camping. Q: And is this barbecue fueled by ...?
 * Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



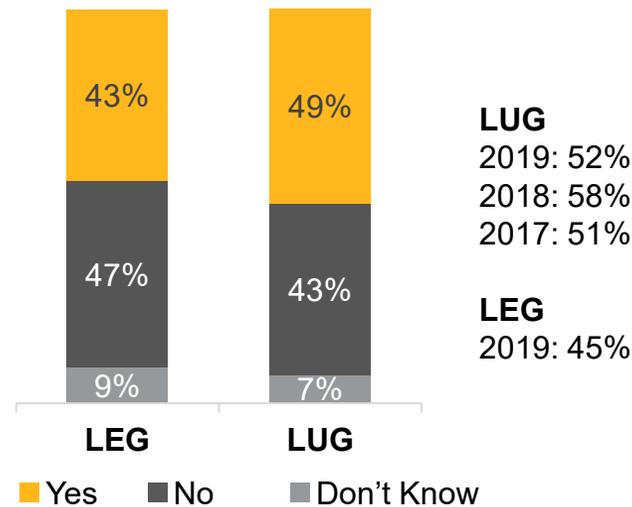
Energy Efficiency (EE) of the New Home

- Most customers believe their new home is built at least to the same level of EE, if not higher, compared to a standard new home (built to Ontario Building Code standards)
- The belief that the home built to higher EE levels is significantly more prevalent among those who have a custom-built home (66% say their house is built to a higher level of EE compared to 43% overall)
- Just over half of customers say that their builder discussed the home’s EE prior to making the purchase decision – this continues to vary somewhat by region

**Level of Home EE
(compared to standard new house
built to OBC)**



**Builder discussed EE prior to
making purchase decision**



Region	Yes (%)
Northern	43%
LUG Eastern	44%
LEG Eastern	51%
GTA West & Niagara	36%
Toronto	29%
GTA East	43%
Southeast	47%
Southwest	54%*

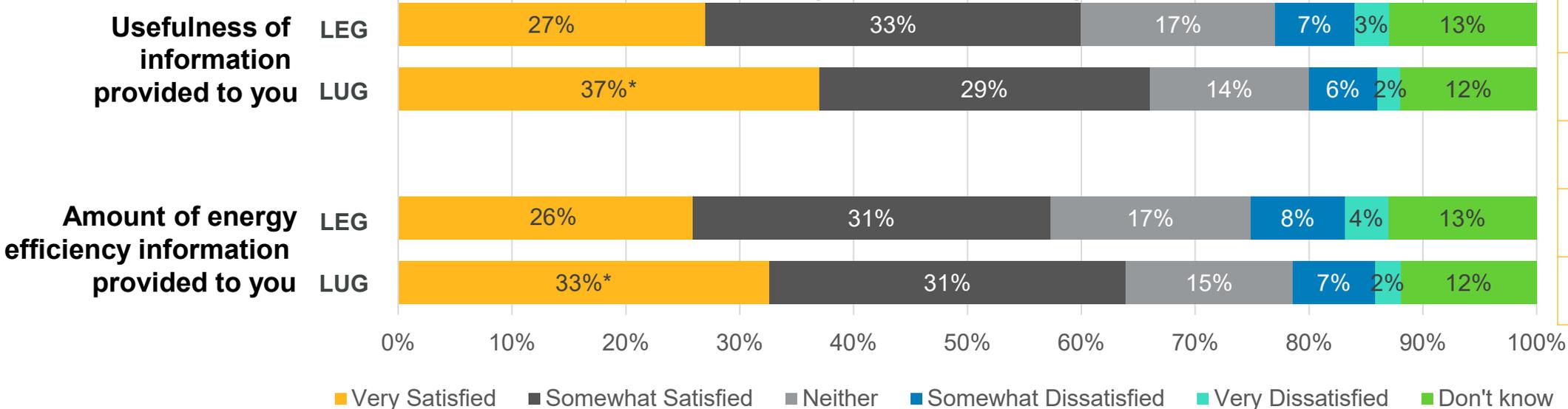
Q: To the best of your knowledge, and compared to the standard new home built to the Ontario Building Code standards, is your new home built to a... ? Q: Prior to making your purchase decision, did the builder discuss the home’s energy efficiency with you? * Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



Home Energy Efficiency: Satisfaction with EE information provided

- Most customers indicate satisfaction with the usefulness and amount of energy efficiency provided during the decision-making process (though more than 1-in-10 indicate “don’t know”)
- Satisfaction on these measures is stronger with LUG customers, and also stronger among those who discussed energy efficiency with the builder

Satisfaction with Energy Efficiency Information Provided During Decision-Making Process



Total Satisfied (Top 2 Box %)	
Total	The builder discussed EE with you (Yes)
60%	80%
66%	86%
57%	76%
64%*	84%

Q: Thinking about the energy efficiency information provided to you during the decision-making process, how satisfied were you with the following:

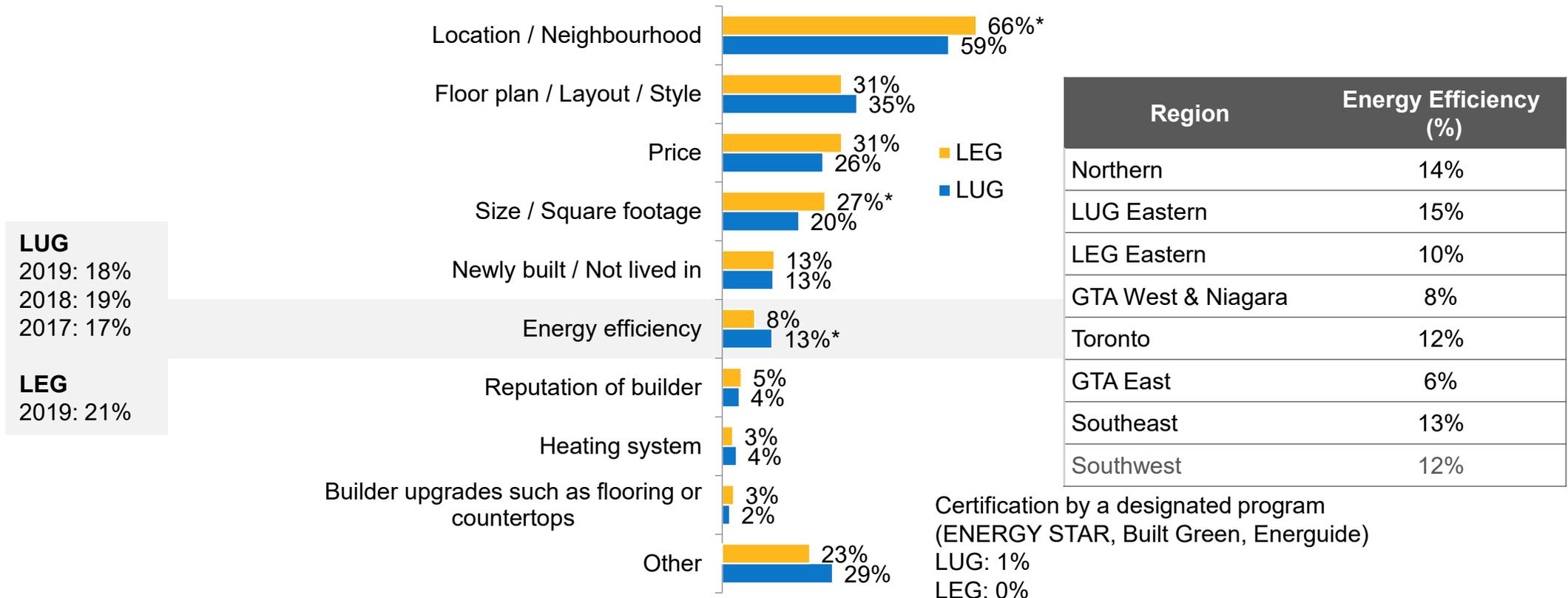
* Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total



Factors in Home Purchase Decision

- Location, floor plan (as well as size) and price continue to be top factors that influence the home purchase decision
- Just about 1-in-8 customers identified energy efficiency as one of the top factors in the purchase decision – this is a decline over previous years where energy efficiency tended to be a more prominent factor

Factors Important in Choosing a New Home (*Unaided*)



Q: Please tell me what factors were important when you chose your new home?

* Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.

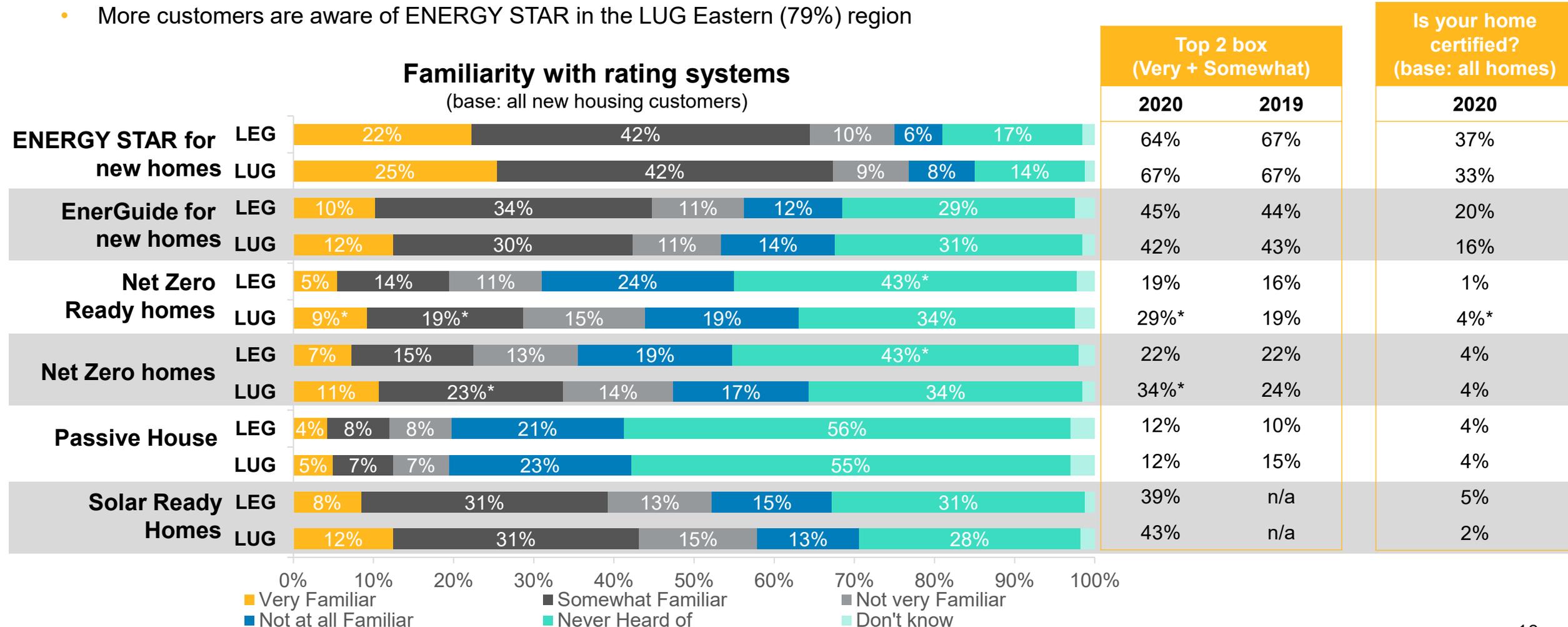


Familiarity with Energy Rating Systems

- Customers tend to be aware of ENERGY STAR for new homes, but few are familiar, or even have heard of, other rating or certification systems – familiarity is consistent compared to 2019 with the exception of Net Zero Homes in the LUG area
- More customers are aware of ENERGY STAR in the LUG Eastern (79%) region

Familiarity with rating systems

(base: all new housing customers)



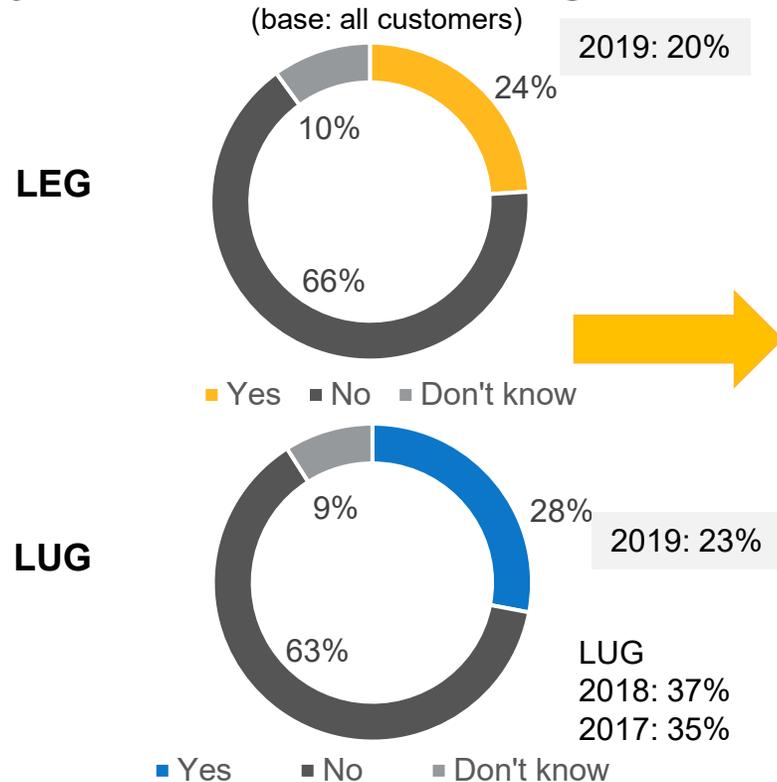
Q: How familiar would you say you are with the following ... Q: Is your home certified or labelled by one the following ...? * Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



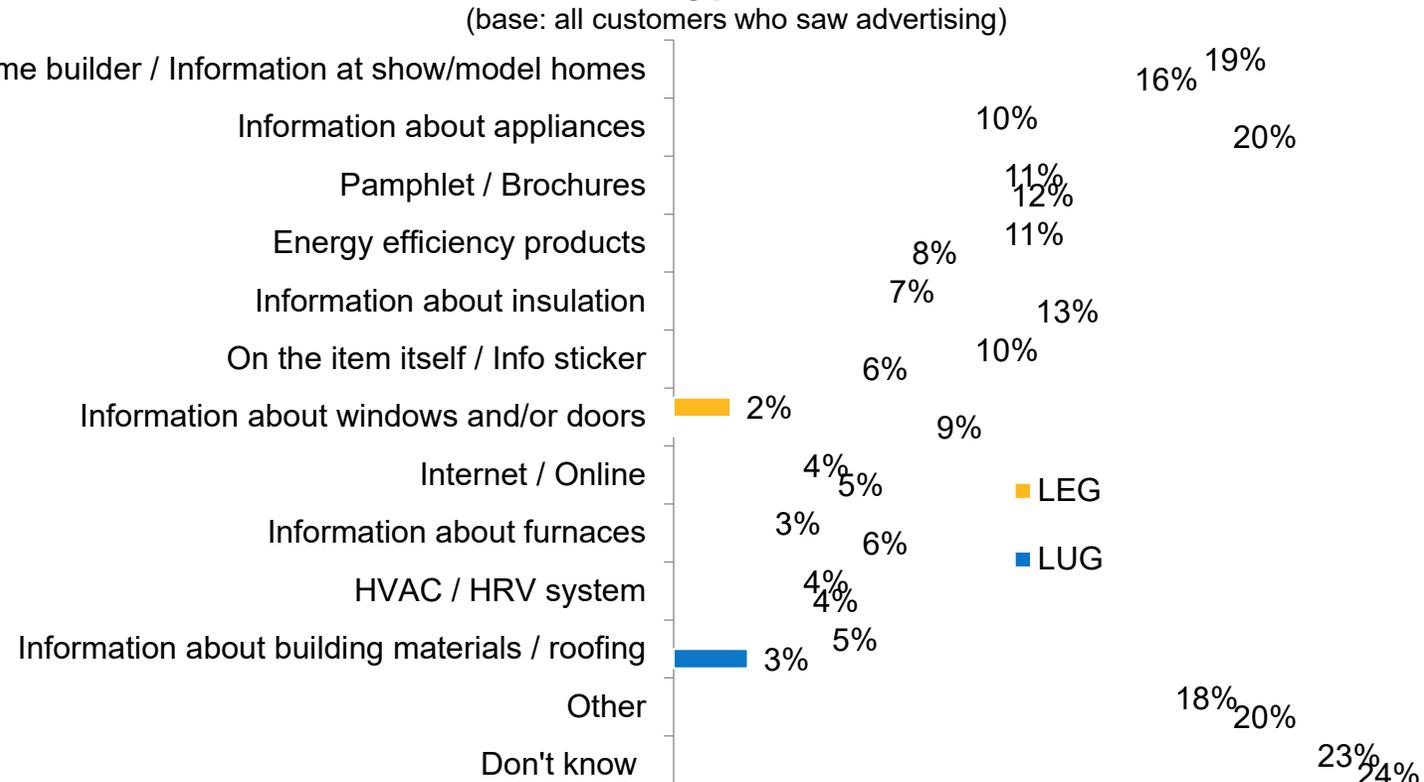
ENERGY STAR Advertising

- About 1-in-5 New Housing customers saw some type of ENERGY STAR advertising during the home purchasing process although not necessarily about whole home ENERGY STAR
- Customers remember seeing information about appliances, windows and doors (through pamphlets and stickers), for example
- LEG customers are much more likely to have seen advertising through the home builder / information at show / model home compared to LUG customers, who tended to indicate appliances and insulation more often

See any ENERGY STAR advertising for new homes



Recall of type of material



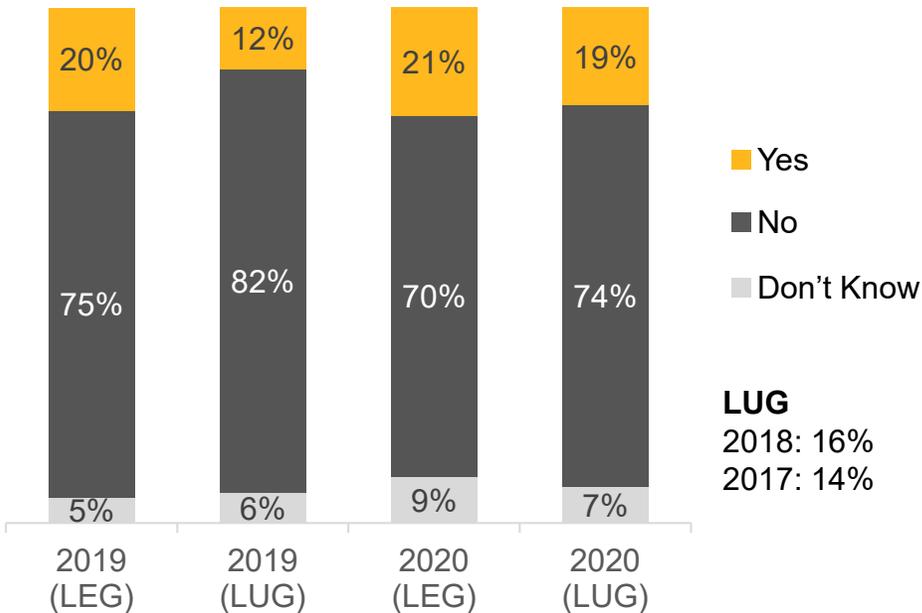
Q: Did you see any advertising material related to Energy Star for new homes during the time you were making your purchase decision? Q: Can you recall what type of material you saw? * Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



Home Energy Efficiency: Future Intentions

- A proportion of customers (LEG: 21%, LUG: 19%) intend to make their new home more energy efficient in the next 2 years
- This proportion is slightly higher among customers in tract/production homes (22%) and larger homes that are more than 2500 sq ft in size (29%)
- Age is also an important factor – younger customers are more likely to plan to make their homes more energy efficient than older customers as well as households with children (24%)

Plans to make home more energy efficient in the next 2 years



Age Group	EGI Yes (%)
18 – 34	27%*
35 – 54	19%
55 – 64	17%
65+	6%

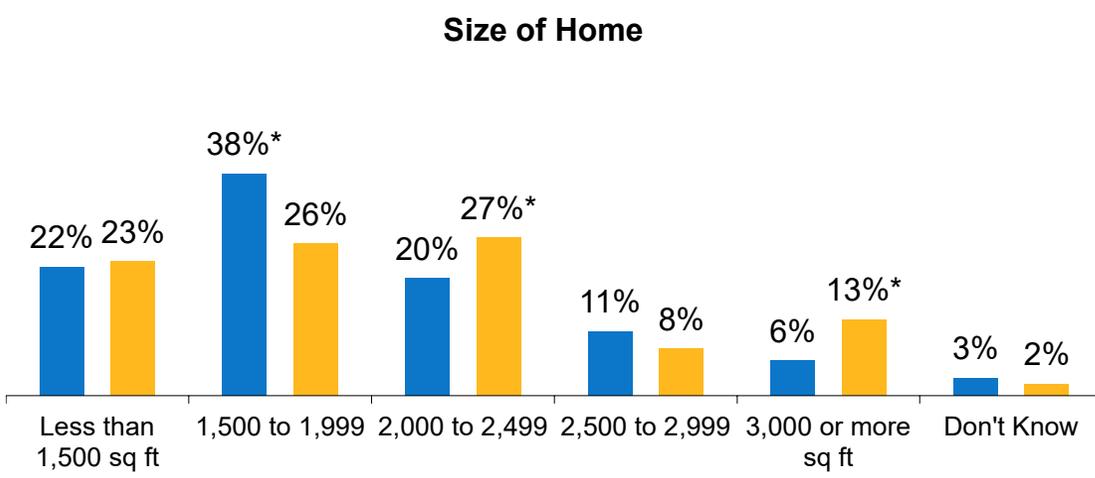
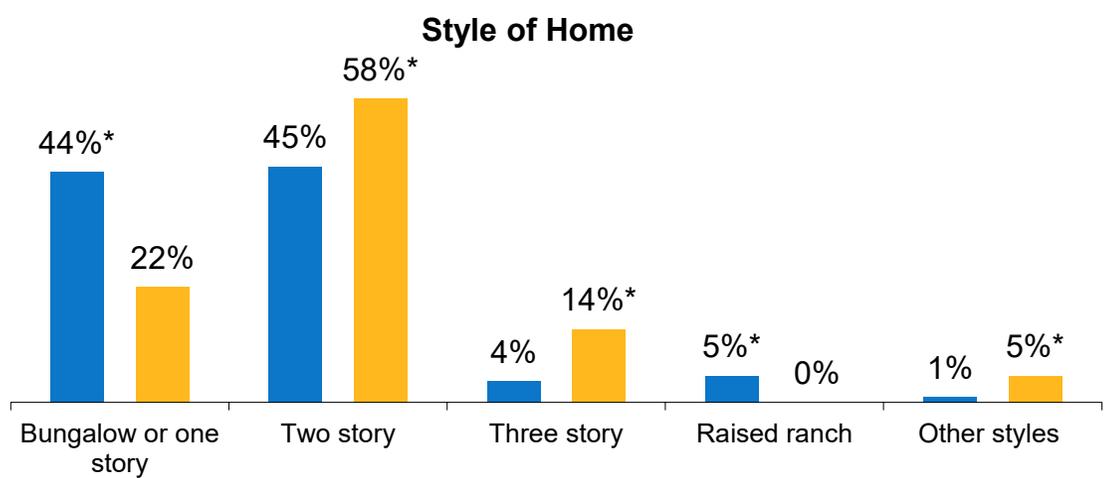
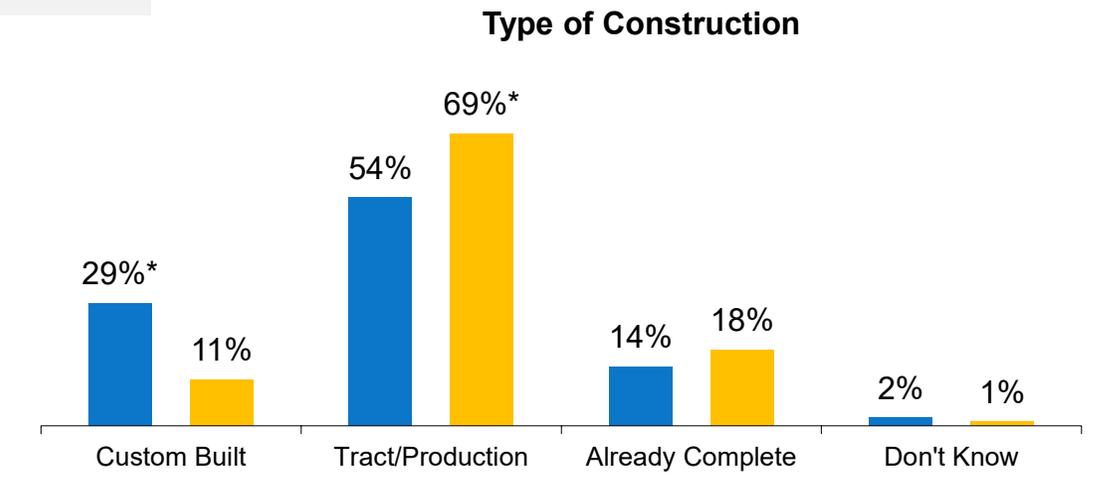
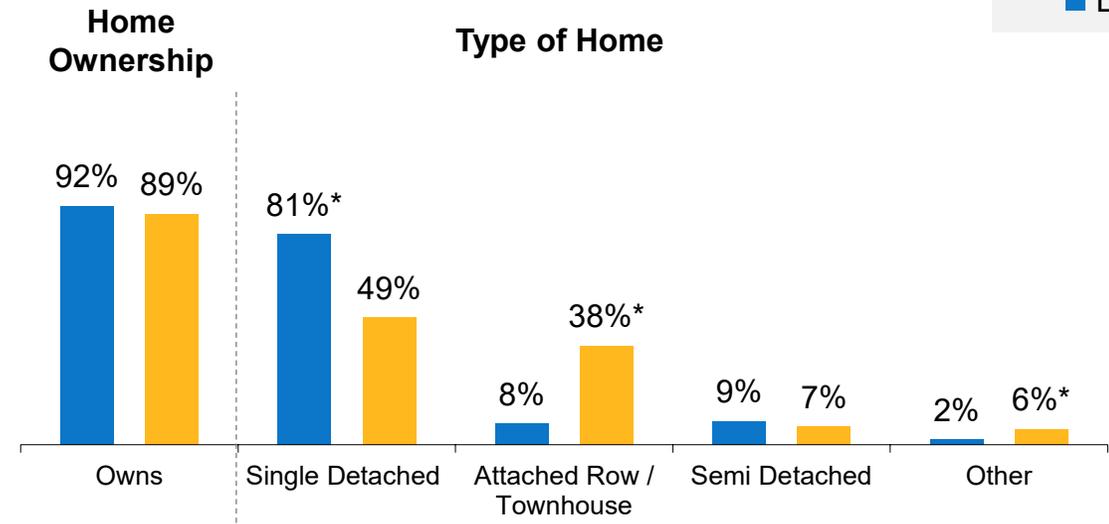
Region	Yes (%)
Northern	18%
LUG Eastern	19%
LEG Eastern	15%
GTA West & Niagara	30%*
Toronto	18%
GTA East	20%
Southeast	23%
Southwest	16%

* indicates a low base size (n<30). Interpret results with caution. Q: Do you have any plans to make your home more energy efficient within the next two years?
 * Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



Demographics: House Characteristics

■ LUG ■ LEG



* Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.



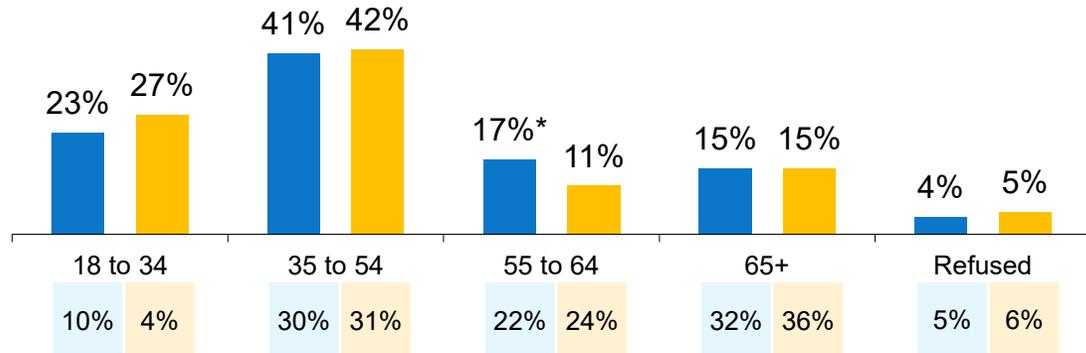
Demographics: Customer Characteristics

■ LUG ■ LEG

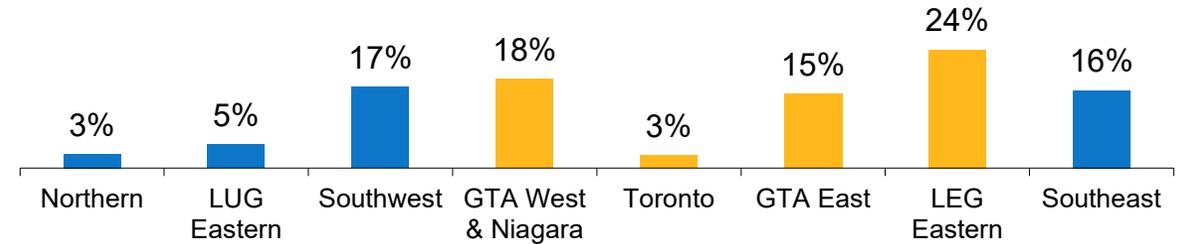
Compared to Single Family Population:

□ LUG □ LEG

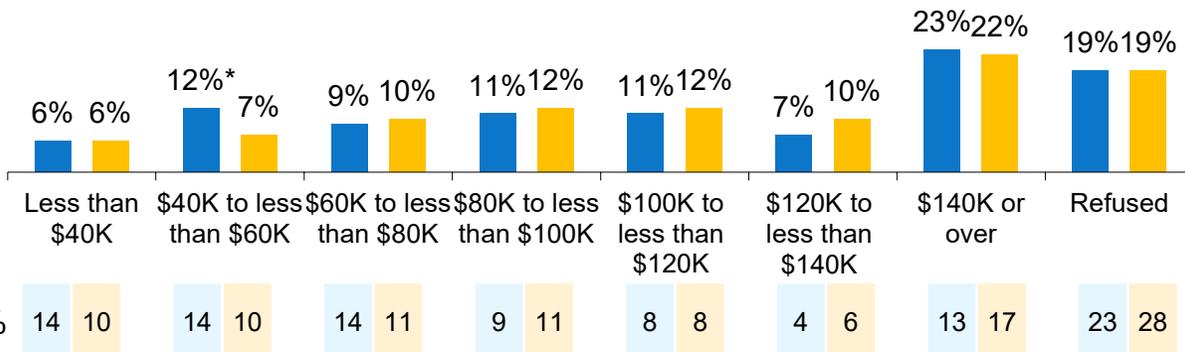
Age



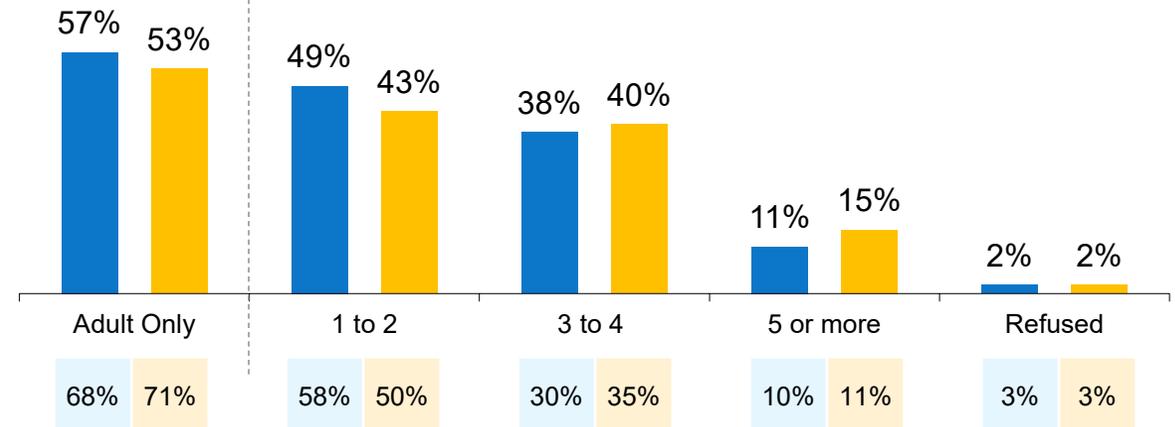
Region



Household Income



Household Size



* Indicates result is significantly higher at a 95% confidence level for this customer group compared to the other (comparing LUG and LEG customers) or against the total.

**Enbridge Gas' Friendly
Customer & Market
Insights Team**



KAREN



ALI



CARRIE



GESIENA



PAULINE



VI



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ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

Interrogatory

Issue 17

Question(s):

- a) What DSM stakeholder consultation does Enbridge plan to undertake in 2023-2027?
- b) In the EB-2020-0091 Decision, the OEB directed Enbridge to develop a website to enhance stakeholder engagement and share information related to stakeholding efforts. Could the same website be used for DSM or would it require a different stakeholder consultation website? Please explain.
- c) Is Enbridge willing to re-establish the DSM Consultative in 2023 if stakeholders were interested? If not, please indicate why.

Response:

- a) Please see response to Exhibit I.17.EGI.EP.26a.
- b) The OEB directed the establishment of a website by Enbridge Gas in the IRP Framework “to facilitate the broad sharing of information on IRP stakeholding efforts.”¹ Though DSM is one of several potential IRPA options that could be included in the consideration of resource planning, communication with stakeholders regarding DSM should be maintained separately to avoid confusion among stakeholders regarding DSM generally vs. specific geo-targeted IRPA options under consideration for a particular system need which may or may not incorporate a DSM component.
- c) The Company believes the stakeholder consultation plan outlined by Enbridge Gas in evidence (Exhibit E, Tab 4, Schedule 6, pages 8-9) is an appropriate approach to make clear an expectation and context to engage and communicate with interested parties including but not limited to customer representatives, business partners, trade allies and industry insiders. In regard to consideration of reintroducing a formal “DSM consultative” with intervenors, Enbridge Gas believes this is a deliberation best directed to the OEB in the context of the current OEB mandate to drive modernization, deliver value and pursue regulatory efficiencies. One should expect that a successful and effective DSM Consultative would need to demonstrate

¹ EB-2020-0091, OEB Decision and Order, EGI Integrated Resource Planning Proposal (July 22, 2021), p. 66.

reduced time and resources in the litigation of DSM related matters to balance any effort and costs incurred. Enbridge Gas suggests it is noteworthy that the OEB concluded the eighteen month post-2020/21 DSM Framework consultation in favour of a litigated application process.